

S&P BSE SENSEX

Index Valuation

Report

May 2025

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1. Introduction

1. S&P BSE Sensex Overview

- The **S&P BSE Sensex** is the benchmark index of the **top 30 financially sound and well-established companies** listed on the **Bombay Stock Exchange (BSE)**.
- Launched in **1986**, the index is India's **oldest stock market index** and is considered a barometer of the Indian equity market.
- The Sensex tracks the **free-float market capitalization-weighted** performance of 30 large and actively traded stocks.
- It is one of the **most followed equity indices** in India and globally, along with the Nifty 50.

2. Market Representation

- The S&P BSE Sensex **comprises 30 of the largest** and most actively traded stocks on the Bombay Stock Exchange (BSE).
- As of May 2025, it represents approximately **45–50% of the total free-float market capitalization** of all companies listed on the BSE.
- **Historical CAGR Returns (as of May 2025)**

CAGR Sensex Return 20 Years – 9.97%

CAGR Sensex Return 10 Years – 11.40%

CAGR Sensex Return 7 Years – 10.53%

CAGR Sensex Return 3 Years – 6.90%

1. Introduction

3. Composition of BSE Sensex

- Sensex includes **30 of the largest and most actively traded companies** listed on the Bombay Stock Exchange.
- Key companies in Sensex are **Reliance Industries, HDFC Bank, Infosys, TCS, ITC, and SBI**.
- The index covers industries such as **banking, IT, oil & gas, pharmaceuticals, automotive, and telecom**.

4. Sector wise contribution in BSE SENSEX

Sectors	Weightage %	Sectors	Weightage (%)
Financial Services	31.02	Construction	3.09
Information Technology	15.73	Chemicals	1.38
Oil, Gas and Consumable Fuels	12.04	Telecommunication	6.96
FMCG	8.31	Power	3.81
Automobile and Auto Parts	6.42	Construction Materials	2.16
Healthcare	2.52	Metals and Mining	1.27

2. Context of the Valuation

1. Context

- FY 2024-25 saw persistent global volatility, with Indian equities navigating inflation, interest rate hikes, and geopolitical tensions impacting investor sentiment and capital flows.
- The Sensex, comprising 30 blue-chip companies, represents major sectors like Financials, IT, Energy, FMCG, and Industrials, reflecting India's economic pulse.
- Key Sensex movers included Reliance Industries, HDFC Bank, TCS, ICICI Bank, and Infosys, driving index performance through diverse sectoral contributions.
- The Valuation report aims to determine the valuation of the Index in the above context.
- The Index has been valued considering the dividends paid, buyback yield, Future Earnings Growth, Equity Risk Premium and India's 10 Year Government Bond Yield which serves as an appropriate proxy for Risk Free Rate. The valuation of the index is based on the methodology used by Prof. Aswath Damodaran (Dean of Valuation- NYU Stern) and his pronouncements on the Discounted Cash Flow approach. However, certain aspects of the methodology have been modified to suit the Indian capital markets and general macroeconomic scenario.
- The Report is prepared using assumptions. Thus, the interpretation of results shall be subjective and based on the users' requirements. The report provides a broader idea on whether the BSE Sensex is Overvalued, Undervalued or Fairly valued which are derived primarily from the cash flows (Dividends and Buy Backs) in the hands of investors/shareholders.
- The index's valuation date shall be "25 May, 2025" and all the data used for the purpose of valuation are till 25 May, 2025.

3. Approach and Methodology

1. Pillars of the Valuation

The Valuation approach used to value the BSE Sensex Index is the Discounted Cash Flow approach. The key pillars being: a.) Free Cash Flow to Equity (FCFE) b.) Earnings Growth c.) Risk Free Rate and d.) Equity Risk Premium.

2. Free Cash Flow to Equity Holders

- Cash flows being one of the key ingredients in DCF valuation implies the extent of the equity holders" right on the cash flows. Cash flows implies Free Cash Flows to Equity holders i.e. FCFE.
- However, it becomes a laborious task to derive FCFE of all the companies in the index and hence, a convenient and effective approach has been followed where the Dividend pay-outs and Buybacks are substituted for FCFE.
- The rationale behind the above consideration is that whatever the cash a firm generates, it shall be ultimately paid to the shareholders in the long run either on liquidation or after the firm has attained maturity in its business verticals either through dividends or buybacks.
- The dividend yield has been sourced from BSE Website and since the buybacks in emerging economies are minuscule, they are not readily available.
- Hence, the Buyback data has been sourced from Prof. Aswath Damodaran"s website which has been consolidated based on the sectoral buybacks conducted.
- As buybacks do not contribute a big chunk of Cash flows, using the sectoral Buyback yield doesn"t cause a major fluctuations in the valuation results.

3. Approach and Methodology

3. Free Cash Flow to Equity Holders

The below representations provides the insights on % of dividend yield and buyback yield in total yield and average BSE **Sensex yield over 20, 10, 5 and 3 years time frame.**

Time Frame (Years)	Dividend Yield	Buyback Yield	Total Yield
20	1.25%	0.13%	1.38%
10	1.16%	0.12%	1.28%
5	1.13%	0.11%	1.24%
3	1.16%	0.12%	1.28%

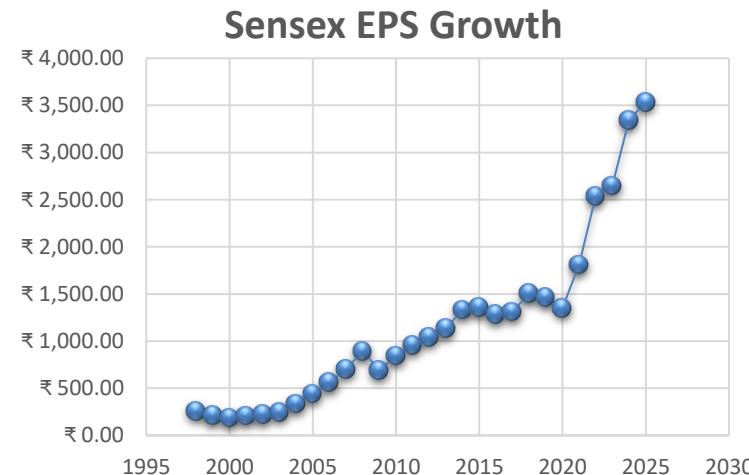


3. Approach and Methodology

4. Earnings Growth

- Earnings of **BSE SENSEX** companies are function of Index EPS and Index's price.
- Earnings are computed using **P/E ratio formula where the earnings are obtained by dividing Index's PE Ratio by the price of SENSEX** i.e. SENSEX points.
- The SENSEX PE ratio and the corresponding price levels are sourced from BSE website and then earnings are derived.
- The data in BSE website provides daily data of Sensex prices and PE ratios. Yearly Average PE range and yearly average Sensex price levels have been considered for the sake of brevity and convenience.
- EPS CAGR for 3Y, 5Y, 10Y and 7Y** were calculated and average of those has been considered for the final growth figures.
- For computing future cash flows, „Average EPS CAGR 3Y“ has been considered over 5Y, 10Y and 7Y as 3Y provides the best representation of the current market trends along with factoring the slowdown caused by Covid-19, geopolitical tensions, distressed supply chains and so on.
- However, **there has been no significant difference in the growth rates** between the above mentioned time frames. The same has been depicted in the table beside.

Average EPS CAGR	Earnings Growth %
10 Years	10.88%
7 Years	11.48%
5 Years	11.87%
3 Years	11.74%



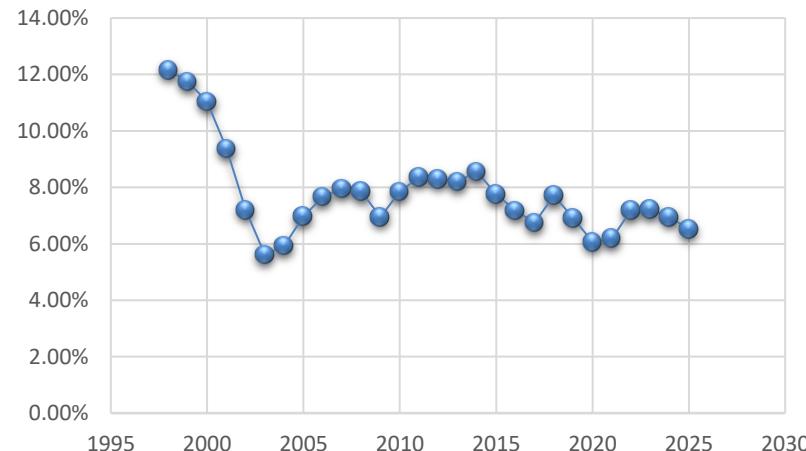
3. Approach and Methodology

5. Risk Free Rate

- **Risk free rate implies the guaranteed minimum return** that any Investor shall expect for Investing in a particular country.
- In valuation practice, **we consider an economy's 10Y Government yield as a Risk free rate**. But, the most appropriate manner shall be to deduct a country's default spread to factor in sovereign default probabilities.
- As the data for Emerging economies like India are not readily available and it is a tedious task to account for the same and hence India's 10Y Government Bond Yield has been considered as Risk Free rate.
- **Given the fact that the India's 10Y Government Bond Yield has varied largely from ~12% to ~7%,** for the purpose of valuation, the latest Risk free rate as on 25th May, 2025 has been considered to satisfy the twin objectives of enabling our valuation to be a forward looking one and to depict the general economic scenario of India's economy.

Average Risk Free Rate	India 10Y Govt. Bond Yield
20 Years	7.41%
10 Years	6.87%
5 Years	6.81%
Latest (May 2025)	6.51%

**Govt. of India 10Y Bond Yield
 Average Range**



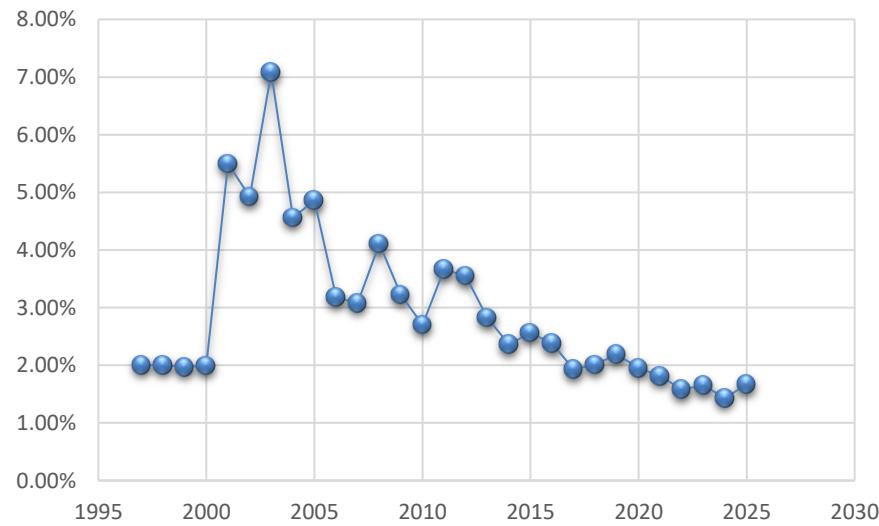
3. Approach and Methodology

6. Market Risk Premium

- Market Risk Premium is the additional return that an investor expects over and above the Risk Free Rate for investing in a particular market which is usually deemed risky.
- It is a country specific risk/ market specific risk.
- When the Market Risk premium is more, it indicates cautious market stance where the investors are in a defensive mode and expects usual than higher returns to invest in a market.
- It also implies that the investors are willing to pay lower prices despite the constant cash flows.
- The data of Market Risk premium for the valuation has been sourced from Market Premia website.
- For the purpose of our Valuation, we have considered the latest Market Risk Premium to account for the latest developments in Indian Equity markets.

Average Implied MRP	Market Risk Premium
10 Years	1.86%
7 Years	1.75%
3 Years	1.58%
Latest (May, 2025)	1.67%

Implied Equity Risk Premium - SENSEX



3. Approach and Methodology

7. Time Frame for the Valuation report

- The Valuation date for the purpose of the report shall be 25st May, 2025.
- All the averages for the data such as Risk Free Rate, Market Risk Premium, BSE Sensex historical returns, EPS Growth, dividend yield have been calculated from FY 1998-99 to FY 2024-2025.
- The valuation assessment has been made by comparing the derived Sensex value as per our valuation and the Closing price of BSE Sensex as on May,2025.

8. Beta

- Beta while valuing index shall be considered to be "1" as we are valuing the barometer which broadly represents the market.

4. Valuation

4.1 Original Case Valuation Results

Total Yield of 5 Years	Expected EPS Growth of 3 Years	Risk-free Rate Latest	Market Risk Premium Latest	Cost of Equity 8.18%	Sensex Valuation 105911.87	Current Price 81721.08	Result Undervalued

Valuing the S&P BSE SENSEX			105911.87
Key Inputs		Assumptions	UnderValued
Date	26-05-2025	26-05-2025	
Current SENSEX Level	81721.08	81721.08	The Market Implied Fair Value of Sensex is 105912. The Sensex is currently trading at 81722. A 29.60% appreciation expected from this Level.
Total Yield	5 Years	1.24%	
Expected Growth	3 Years	11.74%	
Risk-Free Rate	Latest	6.51%	
Equity risk Premium	Latest	1.67%	
Cost of Equity		8.18%	

4. Valuation

4.2 Maximum time frame case Valuation Results

Total Yield of	Expected EPS Growth of	Risk-free Rate	Market Risk Premium	Cost of Equity	Sensex Valuation	Current Price	Result
20 Years	10 Years	20 Years	20 Years	9.89%	66716.24	81721.08	Overvalued

Valuing the S&P BSE SENSEX			66716.24
Key Inputs		Assumptions	Overvalued
Date	26-05-2025	26-05-2025	
Current SENSEX Level	81721.08	81721.08	The Market Implied Fair Value of Sensex is 66717. The Sensex is currently trading at 81722. A 18.36% correction expected from this Level.
Total Yield	20 Years	1.38%	
Expected Growth	10 Years	10.88%	
Risk-Free Rate	20 Years	7.41%	
Equity risk Premium	20 Years	2.49%	
Cost of Equity		9.90%	

5. Data Sources & Disclaimer

1. Sources

- Investing.com
- NSE India official website
- Market Premia website
- Prof. Aswath Damodaran website

2. Disclaimer

- The Valuations carried out are based out of good amount of assumptions which are built based on the understanding of the current scenario in Indian Capital markets.
- The report has been prepared solely for educational purpose and not emanating from the professional in practice.
- The author assumes no liability or responsibility for the losses caused by using this report as an investment advice.
- Although, every endeavour has been made to bring this report as accurate as possible, users should not rely on this report for investment purposes.

End Note

I would like to thank the readers for their time dedicated towards reading the report. Feedbacks are always welcome. Please feel free to get in touch at edraghav9@gmail.com for any questions and/or feedback.

6. Acknowledgment

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