GROWTH OF THE NIFTY 50

(Period: April 22, 1996 - August 11, 2023)

Nidhish Khemka (RA2111033010114)
Information Visualization - 18CSE301J

1. What is the NIFTY 50?

The National Stock Exchange of India Limited (NSE) is one of the leading stock exchanges in India, based in Mumbai, and the NIFTY 50 is a benchmark Indian stock market index that represents the weighted average of 50 of the largest Indian companies listed on the National Stock Exchange.

Launched on the 22nd April 1996, the NIFTY 50 index has shaped up to be the largest single financial product in India, with an ecosystem consisting of exchange-traded funds (onshore and offshore), and futures and options at NSE and SGX. NIFTY 50 is the world's most actively traded contract.

2. How are the stocks chosen for the NIFTY 50 Index?

NSE ranks companies based on the free-float market capitalisation. It then chooses the top 50 companies to be part of the Nifty 50. The following are the criteria for picking stocks for the Nifty 50:

- Stocks should be available for trading in the Futures and Options (F&O) segment.
- Stocks should be listed on the stock exchange for six months. However, in the case of IPOs, stocks should be listed for at least a month.
- The company must be registered with the NSE and be domiciled within India.
- The company should have a 100% trading frequency over the past six months.
- Companies with Differential Voting Rights shares are eligible to be a part of the Nifty 50.
- Stocks should have sufficient traded volume to ensure liquidity and broad investor participation.

The list of stocks is reviewed every six months. Those who do not meet the criteria are eliminated from the Nifty 50. However, replacements are added from companies that match the NSE criteria and the NSE intimates the public at least four weeks before the changes are made.

3. How is the NIFTY 50 calculated?

Nifty 50 is calculated by taking the weighted value of the 50 stocks listed on NSE and is based on free-float market capitalization. The index value is calculated using market capitalization and reflects the value of the stocks relative to the base period. The market value is calculated as the product of several shares and the market price per share.

$$Index\ value = Current\ market\ value\ /\ (Base\ Market\ Capital\ *\ Base\ Index\ Value)$$

4. Can the authenticity of my data be guaranteed?

The data has been sourced from the official NSE Indices Limited website. NSE Indices Limited (formerly known as India Index Services & Products Limited - IISL), a subsidiary of National Stock Exchange of India Limited was setup in May 1998 to provide a variety of indices and index related services and products for the Indian capital markets. It owns and manages a portfolio of over 350 indices under the NIFTY brand as of August 11, 2023, including NIFTY 50. NIFTY indices are used as benchmarks for products traded on NSE.

5. Motivation

Sensex and Nifty are used for measuring the overall performance of the stock market. Sensex is the index used by BSE and Nifty is the index used by NSE. The up and down movement in these indices reflect the movement in the portfolio stocks of that index and is often seen as an indication of the market sentiment. They are also widely used as benchmarks for mutual funds to measure their performance. All in all, a growth in the Nifty 50 signifies the financial growth of the Indian economy.

6. Understanding the data

The data has 7 different fields.

- Open – Represents the value of the Nifty 50 index when the stock market opens for trading on that day.
- Close – Represents the value of the Nifty 50 index when the stock market closes for trading on that day.
- High – Represents the highest value attained by the Nifty 50 index on that day.
- Low – Represents the lowest value attained by the Nifty 50 index on that day.
- P/E (Price to Earnings ratio) – Ratio of the share price of a stock to its earning per share.

- P/B (Price to Book ratio) – Measures the market's valuation of a company relative to its book value.
- Div Yield% (Dividend Yield percentage) - Ratio that shows how much a company pays out in dividends each year relative to its stock price.

7. References

- https://www.nseindia.com/
- https://github.com/StoryTelling-UsingData/18CSE301J-Projects
- https://cleartax.in/s/what-is-nifty
- https://www.niftyindices.com/reports/historical-data

Overleaf: https://www.overleaf.com/read/gczrzhntvnnf