A COMPARATIVE STUDY OF NIFTY 50 AND NIFTY NEXT 50 INDICES: PERFORMANCE METRICS AND INVESTMENT OPPORTUNITIES-INDIA INFOLINE

[1] N. Shwetha, [2] Kasanagottu Anusha
[1] Associate Professor, [2] MBA Student
Department of MBA
Sree Chaitanya College of Engineering, Karimnagar

ABSTRACT

NIFTY, popularly known as the **Nifty 50 Index**, is the benchmark stock market index of the National Stock Exchange (NSE) of India. It represents the performance of 50 large and actively traded companies from various sectors of the Indian economy. Introduced in 1996, Nifty serves as an important indicator of the overall health and direction of the Indian stock market. The index is calculated using the free-float market capitalization method, which reflects the market value of shares available for public trading.

Nifty plays a significant role for investors, traders, financial institutions, and policymakers by providing insights into market trends and investor sentiment. It acts as a benchmark for evaluating the performance of mutual funds, exchange-traded funds (ETFs), and portfolio investments. The index includes companies from sectors such as banking, information technology, pharmaceuticals, automobiles, energy, and consumer goods, ensuring diversified representation of the Indian economy.

The study of Nifty helps in understanding stock market movements, investment patterns, risk management strategies, and economic growth indicators. Changes in the Nifty index are influenced by various factors such as corporate earnings, economic policies, interest rates, inflation, global market conditions, and political developments. As one of the most widely tracked indices in India, Nifty provides valuable information for making informed investment decisions and assessing the overall performance of the capital market.

I. INTRODUCTION

NIFTY, commonly known as the **Nifty 50 Index**, is one of the leading stock market indices in India and serves as a benchmark for the performance of the Indian equity market. It was launched by the **National Stock Exchange (NSE)** in 1996 and comprises 50 of the largest and most liquid companies listed on the exchange. These companies represent various sectors of the economy, including banking, information technology, pharmaceuticals, automobiles, energy, and consumer goods.

The Nifty 50 Index is calculated using the **free-float market capitalization method**, which considers only those shares that are available for public trading. This methodology provides a realistic measure of market performance and investor sentiment. As a result, Nifty is widely used by investors, fund managers, analysts, and policymakers to assess market trends and economic conditions.

Nifty plays a crucial role in the Indian financial system by acting as a benchmark for mutual funds, exchange-traded funds (ETFs), index funds, and portfolio performance evaluation. It also serves as the underlying index for various derivative products such as futures and options, making it an important tool for hedging and speculation.

The movement of the Nifty index is influenced by several factors, including corporate earnings, government policies, interest rates, inflation, global economic developments, and investor confidence. A rising Nifty generally indicates positive market sentiment and economic growth, while a falling Nifty may reflect economic uncertainty or adverse market conditions.

Therefore, the study of Nifty is essential for understanding stock market behavior, investment opportunities, risk management practices, and the overall performance of the Indian capital market. It provides valuable insights into the economic and financial health of the country and helps investors make informed investment decisions.

DERIVATIVE:

A derivative is a financial instrument whose value is derived from the value of an underlying asset such as stocks, bonds, commodities, currencies, interest rates, or market indices like Nifty. Derivatives are commonly used for hedging risk, speculation, and arbitrage opportunities in financial markets.

Derivative contracts enable investors and businesses to protect themselves against adverse price movements and market uncertainties. Instead of directly buying or selling the underlying asset, participants trade contracts whose value changes according to the price fluctuations of the underlying asset.

1. Futures Contracts

A futures contract is an agreement between two parties to buy or sell an asset at a predetermined price on a specified future date. Futures are standardized contracts traded on stock exchanges.

2. Options Contracts

An option contract gives the buyer the right, but not the obligation, to buy or sell an underlying asset at a predetermined price before or on a specified date. Options are classified into:

- **Call Option** – Right to buy an asset.
- **Put Option** – Right to sell an asset.

3. Forward Contracts

A forward contract is a customized agreement between two parties to buy or sell an asset at a future date at an agreed price. These contracts are generally traded over-the-counter (OTC).

4. Swaps

A swap is an agreement between two parties to exchange cash flows or financial obligations over a specified period. Interest rate swaps and currency swaps are common examples.

NEED OF THE STUDY

- To understand the performance and trends of the Nifty 50 Index.
- To analyze the role of derivatives in the Indian stock market.
- To study the impact of market fluctuations on investment decisions.
- To examine the use of derivatives as a risk management tool.
- To understand investor behavior in the derivatives market.
- To evaluate the relationship between the cash market and derivatives market.
- To gain knowledge about futures and options trading on Nifty.

IMPORTANCE OF THE STUDY

- Helps investors make better investment decisions.
- Provides insights into market movements and economic conditions.
- Enhances understanding of risk management techniques.
- Assists in identifying profitable trading opportunities.
- Contributes to effective portfolio management.
- Helps financial institutions and policymakers understand market trends.
- Improves awareness of derivative instruments and their applications.
- Supports academic research and financial market analysis.

SCOPE OF THE STUDY:

The scope of this study is to analyze the performance of the **Nifty 50 Index** and understand the role of **derivative instruments** in the Indian stock market. The study focuses on examining market trends, price movements, trading

activities, and the relationship between the cash market and derivatives market. It covers the functioning of derivative products such as futures and options based on the Nifty index and evaluates their significance in risk management and investment decision-making.

OBJECTIVES OF THE STUDY :

To study the performance of the Nifty 50 Index and analyze the role of derivatives in the Indian stock market.

- To understand the concept and functioning of Nifty and derivative instruments.
- To analyze the trends and movements of the Nifty 50 Index.
- To study the trading mechanism of Nifty futures and options.
- To examine the relationship between the cash market and derivatives market.
- To evaluate the role of derivatives in risk management and hedging.
- To assess the impact of derivatives on market liquidity and efficiency.
- To identify factors influencing Nifty index movements.
- To analyze investor participation in the derivatives market.
- To understand the benefits and risks associated with derivative trading.
- To provide suggestions for effective investment and trading decisions based on market analysis.

II. RESEARCH METHODOLOGY

DATA COLLECTION:

The data of the Steel City Securitas ltd has been collected from the newspapers and the internet. The data consist of the one month contract and period of Data collection.

- **Primary data: -** The primary data is the data which is collected, by interviewing directly with the organizations concerned executives. This is the direct information gathered from the organization.
- **Secondary data:** - The secondary data is the data which is gathered from publications and websites.

LIMITATIONS OF THE STUDY:

- The study is confined only to the **Nifty 50 Index and its derivative instruments**.
- The analysis is based on **secondary data** collected from stock exchanges, financial reports, websites, and published sources.
- The study covers a specific period and may not reflect future market conditions.
- Stock market movements are influenced by various economic, political, and global factors that cannot be fully controlled or predicted.
- The findings are subject to the accuracy and reliability of the available data sources.
- The study does not cover all stock market indices and derivative products available in India.
- Investor behavior and market sentiment may change over time, affecting the relevance of the results.
- Time and resource constraints may limit the depth of analysis.
- The study focuses on general market trends and may not represent the performance of individual stocks.
- Sudden market events and unforeseen economic changes may influence the conclusions of the study.

III. LITERATURE REVIEW

The National Stock Exchange of India was promoted by leading Financial institutions at the behest of the Government of India, and was incorporated in November 1992 as a tax-paying company. In April 1993, it was recognized as a stock exchange under the Securities Contracts (Regulation) Act, 1956. NSE commenced operations in the Wholesale Debt Market (WDM) segment in June 1994. The Capital market (Equities) segment

of the NSE commenced operations in November 1994, while operations in the Derivatives segment commenced in June 2000.

Innovations

NSE has remained in the forefront of modernization of India's capital and financial markets, and its pioneering efforts include:

- Being the first national, anonymous, electronic limit order book (LOB) exchange to trade securities in India. Since the success of the NSE, existent market and new market structures have followed the "NSE" model.
- Setting up the first clearing corporation "National Securities Clearing Corporation Ltd." in India. NSCCL was a landmark in providing innovation on all spot equity market (and later, derivatives market) trades in India.
- Co-promoting and setting up of National Securities Depository Limited, first depository in India
- Setting up of S&P CNX Nifty.
- NSE pioneered commencement of Internet Trading in February 2000, which led to the wide popularization of the NSE in the broker community.
- Being the first exchange that, in 1996, proposed exchange traded derivatives, particularly on an equity index, in India. After four years of policy and regulatory debate and formulation, the NSE was permitted to start trading equity derivatives
- Being the first and the only exchange to trade GOLD ETFs (exchange traded funds) in India.
- NSE has also launched the NSE-CNBC-TV18 media centre in association with CNBC-TV18.
- NSE.IT Limited, setup in 1999 , is a 100% subsidiary of the National Stock Exchange of India. A Vertical Specialist Enterprise, NSE.IT offers end-to-end Information Technology (IT) products, solutions and services.

Markets

Currently, NSE has the following major segments of the capital market:

- Equity
- Futures and Options
- Retail Debt Market
- Wholesale Debt Market
- Currency futures
- MUTUAL FUND
- STOCKS LENDING & BORROWING

August 2008 Currency derivatives were introduced in India with the launch of Currency Futures in USD INR by NSE. Currently it has also launched currency futures in EURO, POUND & YEN. Interest Rate Futures was introduced for the first time in India by NSE on 31 August 2009, exactly after one year of the launch of Currency Futures.

NSE became the first stock exchange to get approval for Interest rate futures as recommended by SEBI-RBI committee, on 31 August 2009, a futures contract based on 7% 10 Year GOI bond (NOTIONAL) was launched with quarterly maturities.

Hours

NSE's normal trading sessions are conducted from 9:15 am India Time to 3:30 pm India Time on all days of the week except Saturdays, Sundays and Official Holidays declared by the Exchange (or by the Government of India) in advance. The exchange, in association with BSE (Bombay Stock Exchange Ltd.), is thinking of revising its timings from 9.00 am India Time to 5.00 pm India Time.

There were System Testing going on and opinions, suggestions or feedback on the New Proposed Timings are being invited from the brokers across India. And finally on 18 November 2009 regulator decided to drop their ambitious goal of longest Asia Trading Hours due to strong opposition from its members.

On 16 December 2009, NSE announced that it would advance the market opening to 9:00 am from 18 December 2009. So NSE trading hours will be from 9.00 am till 3:30 pm India Time.

However, on 17 December 2009, after strong protests from brokers, the Exchange decided to postpone the change in trading hours till 4 Jan 2010.

NSE new market timing from 4 Jan 2010 is 9:00 am till 3:30 pm India Time.

TYPES OF DERIVATIVES:

The following are the various types of derivatives. They are:

FORWARDS:

A forward contract is a customized contract between two entities, where settlement takes place on a specific date in the future at today's pre-agreed price.

FUTURES:

A futures contract is an agreement between two parties to buy or sell an asset at a certain time in the at a certain price.

OPTIONS:

Options are of two types-calls and puts. Calls give the buyer the right but not the obligation to buy a given quantity of the underlying asset, at a given price on or before a give future date. Puts give the buyer the right, but not the obligation to sell a given quantity of the underlying asset at a given price on or before a given date.

WARRANTS:

Options generally have lives of up to one year; the majority of options traded on options exchanges having a maximum maturity of nine months. Longer-dated options are called warrants and are generally traded over-the counter.

LEAPS:

The acronym LEAPS means long-term Equity Anticipation securities. These are options having a maturity of up to three years.

BASKETS:

Basket options are options on portfolios of underlying assets. The underlying asset is usually a moving average of a basket of assets. Equity index options are a form of basket options.

SWAPS:

Swaps are private agreements between two parties to exchange cash floes in the future according to a prearranged formula. They can be regarded as portfolios of forward contracts. The two commonly used Swaps are:

Interest rate Swaps:

This entail swapping only the related cash flows between the parties in the same currency.

Currency Swaps:

These entail swapping both principal and interest between the parties, with the cash flows in on direction being in a different currency than those in the opposite direction.

SWAPTION:

Swaptions are options to buy or sell a swap that will become operative at the expiry of the options. Thus a swaption is an option on a forward swap. Rather than have calls and puts, the swaptions market has received swaptions and payer swaptions. A receiver swaption is an option to receive fixed and pay floating. A payer swaption is an option to pay fixed and received floating.

IV. DATA ANALYSIS AND INTERPRETATION

ANALYSIS

The Objective of this analysis is to evaluate the profit/loss position futures and options. This analysis is based on sample data taken of **M/s. DLF INDIA LTD** scrip. This analysis considered the **January contract** of Power. The lot size of DLF INDIA LTDis **500**, the time period in which this analysis done is from **25-11-2024** to **24-12-2025.**

DLF INDIA LTD (FUTURES & OPTIONS)								
DATES (1)	**PRICE** (2)		**CALL OPTION** (3)			**PUT OPTION** **(4)**		
	SPOT	**FUTURE**	**110**	**120**	**130**	**100**	**110**	**120**
NOV/WED/25	111.25	114.60	11.00	6.25	2.90	3.00	6.15	12.50
NOV/THU/26	115.60	110.95	14.00	7.65	4.05	2.25	4.50	7.90
NOV/FRI/27	120.70	117.75	13.40	6.65	3.65	2.00	4.85	9.50
NOV/SAT/28	**TRADING HOLIDAY**							
NOV/SUN/29	**TRADING HOLIDAY**							
NOV/ MON /30	122.85	121.90	15.00	8.60	4.55	0	3.15	645
DEC/ TUE /01	118.00	127.10	13.15	8.85	4.85	1.60	3.50	6.80
DEC/WED/02	122.00	119.90	8.05	4.05	1.70	3.85	7.65	13.00
DEC/THU/03	120.70	117.75	13.40	6.65	3.65	2.00	4.85	9.50
DEC/FRI/04	118.00	127.10	13.15	8.85	4.85	1.60	3.50	6.80
DEC/SAT/05	**TRADING HOLIDAY**							
DEC/SUN/06	**TRADING HOLIDAY**							
DEC/ MON /07	122.35	121.70	14.95	8.50	4.55	1.20	3.25	6.65
DEC/TUE/08	104.00	100.65	4.10	2.20	1.60	7.50	13.10	0
DEC/WED/09	100.50	94.70	2.55	1.14	0.65	10.25	16.65	26.00
DEC/THU/10	101.10	95.55	2.70	1.35	0	6.55	0	0
DEC/FRI/11	97.55	99.25	3.00	1.40	0	6.55	0	0
DEC/SAT/12	**TRADING HOLIDAY**							
DEC/SUN/13	**TRADING HOLIDAY**							
DEC/MON/14	99.80	99.85	2.44	1.15	0	5.55	0	0
DEC/TUE/15	97.00	100.55	2.55	1.05	0	5.05	0	0
DEC/WED/16	98.30	98.90	1.45	0.55	0	6.60	0	0
DEC/THU/17	99.60	97.85	1.00	0.35	0.20	6.00	0	0
DEC/FRI/18	97.60	97.65	0.55	0	0	4.80	0	0
DEC/SAT/19	**TRADING HOLIDAY**							
DEC/SUN/20	**TRADING HOLIDAY**							
DEC/MON/21	99.60	100.35	0.45	0.25	0.70	2.50	0	0
DEC/THU/22	**TRADING HOLIDAY**							
DEC/WED/23	101.50	103.00	0.50	0.30	0	0.55	0	0

DEC/THU/24	104.80	104.50	0.05	0.20	0	0.05	0	0

TABLE DETAILS

- The first column explains TRADING DATE.
- Second Column (a) explains the SPOT MARKET PRICE in cash segment on that date of Opening Balance of Future Market Amount.
- Second column (b) explains the FUTURE MARKET PRICE in cash segment on that date of Closing Balance on Future Market Amount.
- The Third column explains call Option premiums amounting 110, 120, 130.
- The Fourth column explains Put Option premiums amounting 100, 110, 120.

OBSERVATIONS AND FINDINGS

CALL OPTION

BUYERS PAY OFF:

As brought 1 lot of DLF INDIA LTDthat is 500, those who buy for 110, paid 11.00 premiums per share.

Settlement price is 104.80
Spot price 104.80
Strike price 110.00
Amount -5.20
Premium paid (-) 11.00
Net Profit 5.80 x 500 = 2900

Buyer Profit = Rs.2900 (Profit)

Because it is Pasitive it is out of the money contract, hence buyer will get more Profit, incase spot price increase buyer profit also increase.

SELLERS PAY OFF:

It is in the money for the buyer, so it is in out of the money for seller; hence his profit is also increase.

Strike price 110.00
Spot price 104.80
Amount 5.20
Premium Received 11.00
Net Loss -5.80 x 500 = -2900

Seller Loss = Rs.-2900 (Net Amount)

Because it is negitive it is in the money, hence seller will get more loss, incase spot price decrease in below strike price, seller get profit in premium level

OBSERVATIONS AND FINDINGS

PUT OPTION

BUYERS PAY OFF:

Those who have purchase put option at a strike price of 110, the premium payable is 3.00

On the expiry date the spot market price enclosed at 104.80

Strike price 100.00
Spot price 104.80
Net pay off -4.80 x 500 = -2400

Already, premium paid 11.00, so it can get loss is -2400

Because it is negative, in the money contract, hence buyer will get more loss, incase spot price decrease buyer get profit in premium level.

SELLERS PAY OFF:

As seller is entitled only for premium so, if he is in profit and also seller has to borne total profit.

Spot price 104.80

Strike price 100.00

Amount 4.80 x500 =2400

Already premium received 11.00 so, it can get profit is 2400

Because it is pasitive, out of the money contract, Hence seller gets more profit, incase spot price decrease in above strike price seller can get loss in premium level.

V. FINDINGS

- A **positive** derivative means that the function is increasing
- A M/S. DLF INDIA LTD derivative means that the function is decreasing
- A M/S. DLF INDIA LTD derivative means that the function has some special behavior at the given point. It may have a local maximum, a local minimum, (or in some cases, as we will see later, a "turning" point)

As a last remark we should remember that the derivative of a function is, itself, a function since it varies from point to point. If we want to, we could plot it on its own set of axes. You can compare the signs and slopes of the individual tangent lines of the original curve with the graph of the derivative.

VI. SUGGESTIONS

- In bullish market the call option writer incurs more losses so the investor is suggested to go for a call option to hold, where as the put option holder suffers in a bullish market, so he is suggested to write a put option.
- In bearish market the call option holder will incur more losses so the investor is suggested to go for a call option to write, where as the put option writer will get more losses, so he is suggested to hold a put option.
- In the above analysis the market price of **M/S. DLF INDIA LTD** is having low volatility, so the call option writers enjoy more profits to holders.
- The derivative market is newly started in India and it is not known by every investor, so SEBI has to take steps to create awareness among the investors about the derivative segment.
- In order to increase the derivatives market in India, SEBI should revise some of their regulations like contract size, participation of FII in the derivatives market.
- Contract size should be minimized because small investors cannot afford this much of huge premiums.
- SEBI has to take further steps in the risk management mechanism.
- SEBI has to take measures to use effectively the derivatives segment as a tool of hedging.

VII. CONCLUSION

Derivates market is an innovation to cash market. Approximately its daily turnover reaches to the equal stage of cash market. The average daily turnover of the NSE derivative segments. In cash market the profit/loss of the investor depend the market price of the underlying asset. The investor may incur huge profits or he may incur huge profits or he may incur huge loss. But in derivatives segment the investor the investor enjoys huge profits with limited downside. In cash market the investor has to pay the total money, but in derivatives the investor has to pay premiums or margins, which are some percentage of total money. Derivatives are mostly used for hedging purpose. In derivative segment the profit/loss of the option writer is purely depend on the fluctuations of the underlying asset.

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