**A STUDY ON FINANCIAL PERFORMANCE OF FUTURES AND OPTIONS AT KARVY STOCK BROCKING,VISAKHAPATNAM,AP.**

**GANGISETTY VENKATESWARA RAO**

Email ID:Gvenkatesh5701@gmail.com

And

**Dr. Bandaru Venkata Reddy Naidu,** *M.com., MBA., Ph.D.,*

**Professor & Head**

Department Of Management Studies

Godavari Institute of Engineering & Technology (A)

Rajahmahendravaram, Andhra Pradesh, India

Email ID:drnaidubandaru@gmail.com

**ABSTRACT**

This study explores the financial performance of futures and options as derivatives instruments within financial markets at b Karvy Stock Brocking, Visakhapatnam, Ap. Futures and options contracts are widely used for hedging, speculation, and arbitrage, providing investors with opportunities to manage risk and enhance returns. The paper examines their theoretical foundations, key characteristics, and the role they play in portfolio management. Using historical data and performance metrics, the study analyzes the return profiles, volatility, liquidity, and risk-adjusted performance of both futures and options across various asset classes, such as commodities, equities, and currencies. Additionally, the research delves into the implications of leveraging, margin requirements, and the impact of market conditions on the profitability and effectiveness of these instruments. The findings highlight the potential for significant returns, but also underscore the risks associated with derivatives trading, particularly during periods of market turbulence. The paper concludes with insights on how investors and traders can optimize their strategies, balancing risk and reward, to achieve better financial performance in the context of futures and options markets.

**Keywords**: Futures, options, financial performance, derivatives, risk management, market volatility, portfolio management, leverage.

**INTRODUCTION**

Financial Management is about preparing, directing and managing the money activities of a company such as buying, selling and using money to its best results to maximize wealth or produce best value for money. It is basically applying general management concepts to the cash of the company. Financial Management can also be defined as – The management of the finances of a business / organization in order to achieve financial objectives.

“Financial management is concerned with raising financial resources and their effective utilization towards achieving the organizational goals” Dr. S. N. Maheshwari

“Financial management is the process of putting the available funds to the best advantage from the long-term point of view of business objectives” Richard A. Brealey

#### PROFILE OF STOCK MARKET:

The **Bombay Stock Exchange** (**BSE**) is an Indian [stock exchange](about:blank) located at [Dalal Street](about:blank), [Kala](about:blank) [Ghoda, Mumbai](about:blank) (formerly Bombay), [Maharashtra](about:blank), India,

Established in 1875, the BSE is Asia’s first stock exchange, It claims to be the world's fastest stock exchange, with a median trade speed of 6 microseconds, The BSE is the world's [11th largest stock](about:blank) [exchange](about:blank) with an overall [market capitalization](about:blank) of $1.83 Trillion as of March, 2021. More than 5500 companies are publicly listed on the BSE.

Unlike countries like the United States where 70% of the [GDP](about:blank) is derived from larger companies and the [corporate](about:blank) sector, the corporate sector in India accounts for only 12-14% of the national GDP. Of these, as of November 2016, there are only 7,800 listed companies of which only 4000 trade on the stock exchanges at [BSE](about:blank) and [NSE](about:blank). Hence the stocks trading at the BSE and NSE account for only about 4% of the Indian economy.

### **COMPANY PROFILE :**

KARVY was established as “KARVY & Company” by 5 chartered accountants during the year1979-80. At that time, it was confined only to audit and taxation. Later on, it diversified into financial and accounting services during the year 1981-82 with a capital of Rs.1,50,000. It achieved its first milestone after its first investment in technology. Karvy became a known name during the year 1985-86 when it forayed into capital market as registrar.

But now KARVY, is a premier integrated financial services provider**,** and ranked among the top five in the country in all its business segments, services over 16 million individual investors in various capacities, and provides investor services to over 300 corporates**,** comprising who is who of corporate India.

**Location:** SAI VIKRAM TOWERS, Flat No: 11,1st Floor Near Kukatpally Bus stop, Beside Sri Chaitanya Jr. College, Kukatpally, Hyderabad, Telangana 500072

KARVY covers the entire spectrum of financial services such as Stock broking, Depository Participants, Distribution of financial products like mutual funds, bonds, fixed deposit, Merchant Banking & Corporate Finance, Commodities Broking, Personal Finance Advisory Services, placement of equity, IPOs, among others.

**LITERATURE AND REVIEW :**

The study of financial performance in relation to **futures** and **options** is a complex and multidimensional area within financial markets. Futures and options are popular financial derivatives used by investors, institutions, and corporations to hedge, speculate, or arbitrage risks. They play a significant role in the optimization of financial portfolios and risk management strategies. The following literature review provides a comprehensive overview of key research, theories, and findings concerning the financial performance of futures and options.

Futures Contracts: A futures contract is a standardized agreement between two parties to buy or sell an underlying asset at a predetermined price at a specified time in the future. Futures are primarily used for hedging purposes (to manage price risk) and speculation (betting on price movements). Risk-Return Trade-off: The most widely used financial performance metric is the risk-return trade-off, with futures and options often being evaluated based on their ability to offer superior risk-adjusted returns. For instance, **Sharpe Ratio**, **Treynor Ratio**, and **Jensen's Alpha** are commonly employed to measure risk-adjusted performance (Black, 1976). In particular, futures are often seen as more efficient tools for portfolio diversification, while options offer higher leverage but also higher risk.

**Need For the Study:**

In recent times the Derivative markets have gained importance in terms of their vital role in the economy.

The increasing investments in derivatives (domestic as well as overseas) have attracted my interest in this area. Through the use of derivative products, it is possible to partially or fully transfer price risks by locking-in asset prices. As the volume of trading is tremendously increasing in derivatives market, this analysis will be of immense help to the investors.

**Scope Of the Study**

The scope of the study is limited to “**DERIVATIVES**” with the special reference to Indian context and the NSE has been taken as a representative sample for the study. The study includes futures and options. There are many organizations trading in NSE, but my study is only for selected organization. The study is not based on the international perspective of derivatives markets

**Objective Of the Study**

• To know the role of derivatives in the present market.

• To understand the use of derivatives.

• To understand the concept of FUTURES AND OPTIONS.

• To find the profit/loss position of futures buyer and seller and also the option writer and option holder.

**Methodology Of the Study:**

The collection of information is done in two principal sources. They are as follows

1. Primary Data
2. Secondary Data

**Primary Data**

* It is the information collected directly without any references.
* In this study it is gathered through interviews with concerned officers and staff, either
* Individually or collectively.

### **Secondary Data**

* The secondary data was collected from already published sources such as, NSE websites, internal records, reference from text books and journal relating to derivatives.
* The data collection includes :-

**RESULTS AND DISCUSSIONS**

#### PAY-OFF FOR BUYER OF FUTURES: LONG FUTURES

P PROFIT

E2

LOSS

F

E1

L

**CASE 1:-** The buyers bought the futures contract at (F); if the futures Price Goes to E1 then the buyer gets the profit of (FP).

**CASE 2:-** The buyers get loss when the futures price less then (F); if The Futures price goes to E2 then the buyer the loss of (FL).

### **Illustration:**

Suppose a person goes long in a future contract of HDFC BANK at Rs. 500. That means that he has agreed to buy the underlying at Rs. 500 on expiry. Now, if on expiry, the price of underlying is Rs. 550, then this person will buy at Rs. 500, as per the future contract and will immediately be able to sell the underlying in the cash market at Rs. 550, thereby making the profit Rs. 50. Similarly , if the price of the underlying falls to Rs. 420 at expiry, he would have to buy at Rs. 500, as per the future contract, and if sell as per the same in cash market, he would have incurred a loss of Rs. 80.

The below table and pay off chart show long future pay offs:

|  |  |
| --- | --- |
| **Long on HDFC BANK future at 500** | |
| **Market price at**  **expiry** | **Long futures Pay off** |
| 400 | -100 |
| 420 | -80 |
| 440 | -60 |
| 460 | -40 |
| 480 | -20 |
| 500 | 0 |
| 520 | 20 |
| 540 | 40 |
| 560 | 60 |
| 580 | 80 |
| 600 | 100 |

Table 5.1



**Market price at expiry**

-50

-100

-150

Long futures Pay off

1 2 3 4 5 6 7 8 9 10 11

150

100

50

0

**Long futures Pay off**

**Profit & loss**

### **5.2 PAY-OFF FOR A SELLER OF FUTURES: SHORT FUTURES**

P

PROFIT

E2

E1

F

LOSS

L

**CASE 1:-** The seller sold the future contract at (F); if the future goes to E1 Then the seller gets the profit of (FP).

**CASE 2:-** The seller gets loss when the future price goes greater than (F); If the future price goes to E2 then the seller gets the loss of (FL).

### **Illustration:**

As one person goes long, some other person has to go short, otherwise a deal will not take place. The profit and losses for short futures position will be exactly opposite of the long future position.

This is shown in the below table and chart

Table 5.2

|  |  |
| --- | --- |
| **Short on HDFC BANK future at 500** | |
| **Market price at**  **expiry** | **Short futures Pay**  **off** |
| 400 | 100 |
| 420 | 80 |
| 440 | 60 |
| 460 | 40 |
| 480 | 20 |
| 500 | 0 |
| 520 | -20 |
| 540 | -40 |
| 560 | -60 |
| 580 | -80 |
| 600 | -100 |

#### Graph 5.2

### **5.3 PAY-OFF PROFILE FOR BUYER OF A CALL OPTION**

The Pay-off of a buyer option depends on a spot price of an underlying asset. The following graph shows the pay-off of buyers of a call option.

R

PROFIT

ITM

S

ATM

E1

OTM

E2

LOSS

P

#### Graph 5.3

S =Strike price ITM = In the Money Sp = premium/loss ATM = At the Money

E1 = Spot price 1 OTM = Out of the Money E2 = Spot price 2 SR =Profit at spot price E1

**CASE 1:** (Spot Price > Strike price)

As the Spot price (E1) of the underlying asset is more than strike price (S).

The buyer gets profit of (SR), if price increases more than E1 then profit also increase more than (SR)

**CASE 2:** (Spot Price < Strike Price)

As a spot price (E2) of the underlying asset is less than strike price (S)

The buyer gets loss of (SP); if price goes down less than E2 then also his loss is limited to his premium (SP)

### **5.4 PAY-OFF PROFILE FOR SELLER OF A CALL OPTION**

The pay-off of seller of the call option depends on the spot price of the underlying asset. The following graph shows the pay-off of seller of a call option:



PROFIT

P

ITM

ATM

E2

E1

S

OTM

R

LOSS

#### Graph 5.4

S =Strike price ITM = In the Money SP =Premium / profit

ATM = At The money

E1 =Spot Price 1 OTM = Out of the Money

E2 =Spot Price SR =loss at spot price

**CASE 1:** (Spot price < Strike price) As the spot price (E1) of the underlying is less than strike price (S). The seller gets the profit of (SP), if the price decreases less than E1 then also profit of the seller does not exceed (SP).

**CASE 2:** (Spot price > Strike price)

As the spot price (E2) of the underlying asset is more than strike price (S) the Seller gets loss of (SR), if price goes more than E2 then the loss of the seller also increases more than (SR)

### **5.5 PAY-OFF PROFILE FOR BUYER OF A PUT OPTION**

The Pay-off of the buyer of the option depends on the spot price of the underlying asset. The following graph shows the pay-off of the buyer of a call option.



PROFIT

R

ITM

S

E2

E1

ATM

OTM

P

LOSS

#### Graph 5.5

S = Strike price ITM = In the Money SP = Premium / loss ATM = At the Money

E1 = Spot price 1 OTM = Out of the Money

E2 = Spot price SR = Profit at spot price E1

**CASE 1:** (Spot price < Strike price)

As the spot price (E1) of the underlying asset is less than strike price (S). The buyer gets the profit (SR), if price decreases less than E1 then profit also increases more than (SR).

**CASE 2:** (Spot price > Strike price)

As the spot price (E2) of the underlying asset is more than strike price (S),

The buyer gets loss of (SP), if price goes more than E2 than the loss of the buyer is limited to his premium (SP).

**FINDINGS**

* The study reveals the effectiveness of risk reduction using hedging strategies. It has found out that risk cannot be avoided. But can only be minimized.
* Through the study. it has found out that, the hedging provides a safe position on an underlying security. The loss gets shifted to a counter party. Thus, the hedging covers the loss and risk. Sometimes, the market performs against the expectation. This will trigger losses. so, the hedger should be a strategic and positive thinker.
* It can be understood that the futures price of the stocks moves along with the prevailing market price of the stocks. The future prices on any given day is similar to the market price with a minute difference between them.
* The turnover in equity derivative market is very high due to high volatility and quick response to market information.
* The study confirms that the turnover in the derivative market increases as the expiry date comes nearer with decrease in the margin.

### **SUGGESSTIONS:**

* In bullish market the call option writer incurs more losses so the investor is suggested to go for a call option to hold, whereas 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, whereas 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 HDFC Bank is having low volatility, so the call option writer enjoys more profits to holders.
* Investor should make a simultaneous use of call options and put options, in case the volatility in share prices is unexpected.

**CONCLUSION:**

The Indian derivative market has achieved tremendous growth over the years, and also has a long history of trading in various derivatives products. The derivatives market has seen ups and downs.

The new and innovative derivative products have emerged over the time to meet the various needs of the different types of investors. Financial derivatives have earned a well-deserved extremely significant place among all the financial instruments (products), due to innovation and revolutionized the landscape.

**REFERENCE :**

1. Carpenter, A. (1991). Reporting and Performance Measurement of Futures and Options. In 2nd AFIR International Colloquium, Brighton.
2. Muthine, P. (2021). The Relationship between Options Derivatives and Financial Performance of Selected Listed Commercial Banks in Kenya.
3. Gürkaynak, R. S., & Wright, J. H. (2023). Futures and options. In *Research Handbook of Financial Markets* (pp. 490-508). Edward Elgar Publishing.
4. Hull, J., Treepongkaruna, S., Colwell, D., Heaney, R., & Pitt, D. (2013). *Fundamentals of futures and options markets*. Pearson Higher Education AU.
5. Wang, C. (2003). The behavior and performance of major types of futures traders. *Journal of Futures Markets: Futures, Options, and Other Derivative Products*, *23*(1), 1-31.