



# **iJRASET**

International Journal For Research in  
Applied Science and Engineering Technology



---

# **INTERNATIONAL JOURNAL FOR RESEARCH**

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

---

**Volume: 9      Issue: VIII      Month of publication: August 2021**

**DOI: <https://doi.org/10.22214/ijraset.2021.37454>**

**[www.ijraset.com](http://www.ijraset.com)**

**Call:  08813907089**

**E-mail ID: [ijraset@gmail.com](mailto:ijraset@gmail.com)**

# A Study of Derivative Market in India

Mr. Mohammad Siddiq Hussain<sup>1</sup>, Dr. Madhavi Sripathi<sup>2</sup>

<sup>1</sup>Student MBA (Final), <sup>2</sup>Associate Professor, Gudlavalleru Engineering College, Gudlavalleru

**Abstract:** *The development of the market for subsidiaries items, most quite advances, fates and choices, can be followed back to the readiness of hazard disinclined financial specialists to watch themselves against vulnerabilities emerging out of vacillations in resource costs. Subordinates are hazard the board instruments, which get their worth from a hidden resource. Costs in a coordinated subordinates market mirror the view of market members about the future and lead the cost of fundamental to the apparent future level. As of late the Derivative business sectors have acquired significance as far as their essential part in the economy. The expanding interests in stocks (homegrown just as abroad) have pulled to my advantage here. Various investigations on the impacts of fates and alternatives posting on the hidden money market unpredictability have been done in the created markets. The subordinate market is recently begun in India and it isn't known by each financial backer, so SEBI needs to find ways to make mindfulness among the financial backers about the subsidiary portion. In real money market the benefit/loss of the financial backer relies upon the market cost of the basic resource. The financial backer may cause gigantic benefit or he may bring about tremendous misfortune. In any case, in subsidiaries portion the financial backer appreciates gigantic benefits with restricted drawback. Subordinates are for the most part utilized for supporting reason. To expand the subsidiaries market in India, SEBI should overhaul a portion of their guidelines like agreement size, support of FII in the subordinates market. More or less the examination illuminates the subordinates market.*

**Keywords:** *vulnerabilities, vacillations, unpredictability, apparent, gigantic.*

## I. INTRODUCTION

The development of the market for subordinates items, most remarkably advances, fates and choices, can be followed back to the eagerness of hazard unwilling monetary specialists to watch themselves against vulnerabilities emerging out of variances in resource costs. By their actual nature, the monetary business sectors are set apart by a serious level of instability. Using subordinate items, it is feasible to mostly or completely move value hazards by securing resource costs. As instruments of hazard the executives, these by and large don't impact the changes in the basic resource costs. Be that as it may, by securing resource costs, subsidiary item limits the effect of vacillations in resource costs on the productivity and income circumstance of hazard opposed financial backers. Subordinates are hazard the board instruments, which get their worth from a basic resource. The hidden resource can be bullion, record, share, bonds, money, premium, and so forth Banks, Securities firms, organizations and financial backers to fence hazards, to access less expensive cash and to make benefit, use subsidiaries. Subordinates are probably going to become even at a quicker rate in future.

### A. Objectives Of The Study

- 1) To dissect the activities of prospects and alternatives.
- 2) To discover the benefit/misfortune position of fates purchaser and merchant and furthermore the choice author and choice holder.
- 3) To understand the concept of the financial derivatives such as futures & options

### B. Need For Study

As of late the Derivative business sectors have acquired significance as far as their crucial job in the economy. The expanding interests in subordinates (homegrown just as abroad) have pulled to my advantage here. Using subsidiary items, it is feasible to in part or completely move value hazards by securing resource costs. As the volume of exchanging is hugely expanding in subsidiaries market, this investigation will be of monstrous assistance to the financial backers.

### C. Scope Of The Study

The investigation is restricted to "Subordinates" with exceptional reference to prospects and alternative in the Indian setting and the InterConnected Stock Exchange has been taken as an agent test for the examination. The investigation can't be said as thoroughly awesome. Any modification may come. The examination has just taken a stab at assessment subsidiaries market just in India setting.

## II. LITERATURE REVIEW

Conduct of Stock Market Volatility after Derivatives Golaka C Nath , Research Paper (NSE) Financial market progression since mid 1990s has achieved significant changes in the monetary business sectors in India. The creation and strengthening of Securities and Exchange Board of India (SEBI) has helped in giving more elevated level responsibility on the lookout. New establishments like National Stock Exchange of India (NSEIL), National Securities Clearing Corporation (NSCCL), National Securities Depository (NSDL) have been the change specialists and aided cleaning the framework and gave wellbeing to contributing public on the loose. With present day innovation close by, these foundations set benchmarks and principles for others to follow. Microstructure changes achieved decrease in exchange cost that assisted financial backers with securing an arrangement quicker and cheaper. One decade of changes saw execution of approaches that have improved straightforwardness in the framework, accommodated less expensive method of data dispersal absent a lot of time delay, better corporate administration, and so forth. The capital market saw a significant change and primary change during the time frame. The changes cycle have assisted with improving productivity in data scattering, upgrading straightforwardness, forbidding out of line exchange rehearses like insider exchanging and value fixing. Presentation of subsidiaries in Indian capital market was started by the Government through L C Gupta Committee report. The L.C. Gupta Committee on Derivatives had suggested in December 1997 the presentation of stock file fates in any case to be trailed by different items once the market develops. The planning of administrative system for the tasks of the record fates contracts took some additional time. Lastly fates on benchmark lists were presented in June 2000 followed by choices on lists in June 2001 followed by choices on singular stocks in July 2001 lastly followed by fates on singular stocks in November 2001.

## III. RESEARCH METHODOLOGY

A subjective exploration configuration has been received for the investigation to comprehend the aces, cons, targets and different stages in the derivatives. In this examination the specialist attempts to investigate the significance of functions and types of derivatives. The optional information has been gathered from different sources, for example, sites, articles, reports/Research papers from driving exploration establishments and distributed sources have likewise been alluded.

### A. Derivatives

The rise of the market for subordinates items, most remarkably advances, prospects and choices, can be followed back to the ability of hazard unwilling financial specialists to monitor themselves against vulnerabilities emerging out of vacillations in resource costs. By their actual nature, the monetary business sectors are set apart by an exceptionally serious level of instability. Using subordinate items, it is feasible to part of the way or completely move value chances by securing resource costs. As instruments of hazard the board, these by and large don't impact the variances in the fundamental resource costs. Notwithstanding, by securing resource costs, subsidiary item limits the effect of vacillations in resource costs on the productivity and income circumstance of hazard disinclined financial backers. Subordinates are hazard the executives instruments, which get their worth from a hidden resource. The hidden resource can be bullion, record, share, bonds, cash, premium, and so on. Banks, Securities firms, organizations and financial backers to fence hazards, to access less expensive cash and to make benefit, use subsidiaries. Subordinates are probably going to become even at a quicker rate in future.

### B. Types Of Derivatives

Coming up next are the different sorts of subordinates. They are:

- 1) *Forwards*: A forward agreement is an altered agreement between two substances, where settlement happens on a particular date later on at the present pre-concurred cost.
- 2) *Futures*: A fates contract is an arrangement between two gatherings to purchase or sell a resource in a specific time at a specific value, they are normalized and exchanged on trade.
- 3) *Options*: Alternatives are of two sorts calls and puts. Considerers give the purchaser the privilege yet not the commitment to purchase a given amount of the hidden resource, at a given cost at the very latest a given future date. Puts give the purchaser the right, however not the commitment to sell a given amount of the basic resource at a given cost prior to a given date.
- 4) *Warrants*: Choices by and large have lives of as long as one year; most of choices exchanged on choices trades having a greatest development of nine months. Longer-dated choices are called warrants and are by and large exchanged over-the-counter.
- 5) *Leaps*: The abbreviation LEAPS implies long haul Equity Anticipation protections. These are choices having a development of as long as three years.

- 6) *Baskets*: Crate alternatives are choices on arrangement of basic resources. The hidden resource is normally a moving normal of a bushel of resources. Value file choices are a type of container alternatives.
- 7) *Swaps*: Trades are private arrangements between two gatherings to trade cash floes later on as indicated by a coordinated equation. They can be viewed as arrangement of forward agreements. The two usually utilized Swaps are:
  - a) *Interest rate Swaps*: These involve trading just the connected incomes between the gatherings in a similar money.
  - b) *Currency Swaps*: These involve trading both head and premium between the gatherings, with the incomes on way being in an unexpected money in comparison to those the other way
- 8) *Swaption*: Swaptions are choices to purchase or sell a trade that will get employable at the expiry of the alternatives. Subsequently a swaption is an alternative on a forward trade.

### C. Rationale Behind The Development Of Derivatives

Holding arrangement of protections is related with the danger of the likelihood that the financial backer may understand his profits, which would be a lot lesser than what he expected to get. There are different elements, which influence the profits:

- 1) Cost or profit (interest)
- 2) Some are inward to the firm like-
- 3) Industrial arrangement
- 4) Management capacities
- 5) Consumer's inclination
- 6) Labor strike, and so forth

These powers are generally controllable and are named as non orderly dangers. A financial backer can undoubtedly oversee such nonsystematic by having a very much differentiated portfolio spread across the organizations, businesses and gatherings so a misfortune in one may effectively be remunerated with an addition in other.

There are yet other of impact which are outer to the firm, can't be controlled and influence enormous number of protections. They are named as precise danger. They are:

- a) Economic
- b) Political
- c) Sociological changes are wellsprings of efficient danger.

For example, expansion, loan fee, and so on their impact is to cause costs of practically all-singular stocks to move together in a similar way. We accordingly regularly discover stock costs tumbling occasionally disregarding organization's procuring rising and the other way around. Sane Behind the advancement of subsidiaries market is to deal with this precise danger, liquidity in the feeling of having the option to purchase and sell moderately huge sums rapidly without considerable value concession.

Paying off debtors market, an enormous situation of the complete danger of protections is efficient. Obligation instruments are likewise limited life protections with restricted attractiveness because of their little size comparative with numerous normal stocks. Those components favor with the end goal of both portfolio supporting and hypothesis, the presentation of a subordinates protections that is on some more extensive market as opposed to an individual security.

## IV. REGULATORY FRAMEWORK

The exchanging of subsidiaries is represented by the arrangements contained in the SC R A, the SEBI Act, and the guidelines outlined there under the standards and byelaws of stock trades

### A. Introduction To Futures And Options

As of late, subsidiaries have gotten progressively significant in the field of account. While prospects and alternatives are presently effectively exchanged on numerous trades, forward agreements are well known on the OTC market. In this section we will concentrate in detail these three subsidiary contra

### B. Forward Contracts

A forward agreement is a consent to purchase or sell a resource on a predefined future date at a predetermined cost. One of the gatherings to the agreement expects a long position and consents to purchase the hidden resource on a specific indicated future date at a specific determined cost. The other party accepts a short position and consents to sell the resource on a similar date at a similar cost. Other agreement subtleties like conveyance date, cost and amount are haggled respectively by the gatherings to the agreement. The forward agreements are typically exchanged external the trades.

The remarkable highlights of forward agreements are: They are reciprocal agreements and henceforth presented to counter-party hazard. Each agreement is hand crafted, and subsequently is exceptional as far as agreement size, termination date and the resource type and quality. The agreement cost is by and large not accessible in open area. On the termination date, the agreement must be settled by conveyance of the resource.

On the off chance that the gathering wishes to invert the agreement, it needs to necessarily go to the equivalent counterparty, which frequently brings about exorbitant costs being charged. Anyway forward agreements in specific business sectors have gotten exceptionally normalized, as on account of unfamiliar trade, in this manner decreasing exchange costs and expanding exchanges volume. This interaction of normalization arrives at its breaking point in the coordinated prospects market. Forward agreements are exceptionally helpful in supporting and hypothesis. The exemplary supporting application would be that of an exporter who hopes to get installment in dollars three months after the fact. He is presented to the danger of conversion standard variances. By utilizing the cash forward market to sell dollars forward, he can bolt on to a rate today and decrease his vulnerability. Also a shipper who is needed to make an installment in dollars two months subsequently can lessen his openness to conversion scale changes by purchasing dollars forward. In the event that an examiner has data or investigation, which figures an upswing in a value, at that point he can go long on the forward market rather than the money market. The theorist would go long on the forward, trust that the cost will rise, and afterward take a turning around exchange to book benefits. Examiners likely could be needed to store an edge forthright. Be that as it may, this is by and large a moderately little extent of the estimation of the resources fundamental the forward agreement. The utilization of forward business sectors here provisions influence to the examiner.

### C. Limitations Of Forward Markets

Forward business sectors overall are distressed by a few issues: □ Lack of centralization of exchanging, □ Illiquidity, and □ Counterparty hazard In the initial two of these, the fundamental issue is that of a lot adaptability and over-simplification. The forward market resembles a housing market in that any two consenting grown-ups can shape contracts against one another. This regularly makes them configuration terms of the arrangement which are helpful in that particular circumstance, however makes the agreements non-tradable. Counterparty hazard emerges from the chance of default by any one gathering to the exchange. At the point when one of the different sides to the exchange opts for non-payment, the other endures. In any event, when forward business sectors exchange normalized contracts, and subsequently stay away from the issue of illiquidity, still the counterparty hazard stays an intense.

## V. ANALYSIS OF ICICI

The objective of this analysis is to evaluate the profit/loss position of futures and options. This analysis is based on sample data taken of ICICI BANK scrip. This analysis considered the Mar2012 contract of ICICI BANK. The time period in which this analysis done is from 1-02-2012 to 1.03.2012.

DATE	MARKET PRICE	FUTURE PRICE
1-Feb-12	914.45	899.1
2-Feb-12	908.75	907.8
3-Feb-12	906.35	924.4
6-Feb-12	934.05	929.2
7-Feb-12	942	941.15
8-Feb-12	931.25	927.7
9-Feb-12	925.35	949.3
10-Feb-12	945	935.5
13-Feb-12	939.1	945.25
14-Feb-12	937.9	952.55
15-Feb-12	963.3	990.25
16-Feb-12	983.65	979.45
17-Feb-12	988.15	991.45
21-Feb-12	988.3	1002.3
22-Feb-12	997.85	966.2
23-Feb-12	961.4	955
24-Feb-12	945.1	940.15
27-Feb-12	941	899.35
28-Feb-12	906.3	924.4
29-Feb-12	922.45	915.35
1-Mar-12	911.05	892.75

- 1) *Observations:* If a person buys 1 lot i.e. 250 futures of ICICI BANK on 1 st Feb 12 and sells on 1 st Mar, 12 then he will get a loss of  $892.75 - 899.1 = -6.35$  per share. So he will get a loss of 1587.5 i.e.  $-6.35 * 250$  If he sells on 21 st Feb 2012 then he will get a profit of  $1002.3 - 899.1 = 103.2$  i.e. a profit of 103.2 per share. So his total profit is 25800 i.e.  $103.2 * 250$ .

The closing price of ICICI BANK at the end of the contract period is 911.05 and this is considered as settlement price.

The following table explains the market price and premiums of calls.

a) The first column explains trading date

b) Second column explains the SPOT market price in cash segment on that date.

The third column explains call premiums amounting at these strike price; 920, 980.

## VI. ANALYSIS OF SBI

The objective of this analysis is to evaluate the profit/loss position of futures and options. This analysis is based on sample data taken of SBI scrip. This analysis considered the Mar 2012 contract of SBI. The lot size of SBI is 132, the time period in which this analysis done is from 1-02-2012 to 1.03.12

Date	Market Price	Future Price
1-Feb-12	2030	205.9
2-Feb-12	2083	2041
3-Feb-12	2040	2073
6-Feb-12	2126.95	2129.85
7-Feb-12	2144.95	2134.7
8-Feb-12	2141.45	2159.95
9-Feb-12	2146	2175.65
10-Feb-12	2174	2163.8
13-Feb-12	2169	2126.95
14-Feb-12	2133.45	2197.95
15-Feb-12	2222	2257.25
16-Feb-12	2242	2345
17-Feb-12	2364.7	2419
21-Feb-12	2418.65	2463.9
22-Feb-12	2462.15	2276.9
23-Feb-12	2270	2280
24-Feb-12	2293.7	2230.2
27-Feb-12	2230	21459.95
28-Feb-12	2160	2260.8
29-Feb-12	2289.75	2267.65
1-Mar-12	2251.55	2235.25

- 1) *Observations:* If a person buys 1 lot 1 st Feb, 2012 and sells on 1 st Mar, 2012 then he will get a profit of  $2235.25 - 2065.9 = 169.35$  per share. So he will get a profit of 21168.75 i.e.  $169.35 * 125$

If he sells on 23 rd Feb, 2012 then he will get a profit of  $2280 - 2065.9 = 214.1$  i.e. a profit of 214.1 per share. So his total profit is 26762.5 i.e.  $214.1 * 125$

The closing price of SBI at the end of the contract period is 2251.55 and this is considered as settlement price.

The following table explains the market price and premiums of calls. → The first column explains trading date

a) Second column explains the SPOT market price in cash segment on that date.

b) The third column explains call premiums amounting at these strike prices; 2250, 2400.

## VII. FINANCIAL ANALYSIS

PE ratio of all banks decreased in 2015. There was higher fluctuation of SBI and ICICI bank has consistent ratio from 2012 to 2015. The sudden change in PE ratio of SBI and ICICI is

Due to the stock split from Face value of Rs. 10 of both banks to lower denomination i.e, Rs. 2 per share in 2014. Overall highest ratio in 2015 is of ICICI Bank at 31.40 and lowest is of

SBI. ICICI is better in this respect.

EPS of SBI declined in 2014, but it has increased in 2015. EPS of ICICI bank have positive trend. ICICI has highest EPS in all the years. It shows that profitability of ICICI is higher when compared to SBI bank.

Return on Net Worth is stable for ICICI Bank it is an increasing trend. Ratio of SBI has decreased in 2014 and that of ICICI has decreased in 2015.

Total assets to debt ratio of SBI Bank has lowest ratio in all years and it slightly decreased in 2015. ICICI have similar levels and ICICI has highest ratio in 2015. The banks have sufficient assets to cover the debt.

Proprietary ratio of SBI Bank is lower than SBI Bank. Ratio of ICICI Bank is higher than SBI bank. Ratio of ICICI bank has slightly increased in 2015. It shows that ICICI bank has more assets funded with owners' or share holders funds. It has more capacity to bear the additional debt if necessary.

### A. The Trend Of Share Prices

The trend of share prices, of SBI Bank and ICICI Bank is in a declining trend but steadily increased till 2015.

The price of SBI Bank suddenly declined to Rs.262.73 in 2015. This is due to the stock split announced by SBI Bank 2014. Similar decrease of ICICI Bank to Rs.302.63 is due to stock split announced in 2014.

### B. Year Wise Beta From 2011 To 2015 Indicates The Following

ICICI has highest beta from 2011 to 2014 and reached the lowest in the year 2015. So it can be concluded that investment in the shares of ICICI is recommended for risk-averse investors.

### C. Correlation of the Average Share prices between the SBI, and ICICI Bank

The correlation of the average share prices between the SBI, and ICICI Bank at the significance level (2-tailed) of 0.000 the person correlation value is 1.00, it is concluded that person correlation value less than the 0.05. Hence there is no correlation between the average share prices of SBI and ICICI Bank.

### D. Correlation of beta values between the SBI and ICICI Bank

The correlation of beta values between the SBI, and ICICI at the significance level (2-tailed) of 0.058 the person correlation value is 0.866,. It is concluded that person correlation value greater than the 0.05. Hence there is a correlation between the average share prices of SBI, and ICICI Bank. It shows that the correlation SBI and ICICI Bank there is a positive correlation

## VIII. CONCLUSION

In bullish market the call alternative essayist brings about more misfortunes so the financial backer is recommended to go for a call choice to hold, where as the put choice holder endures in a bullish market, so he is proposed to compose a put choice. □ In bearish market the call alternative holder will bring about more misfortunes so the financial backer is recommended to go for a call choice to compose, where as the put choice author will get more misfortunes, so he is proposed to hold a put choice.

## REFERENCES

- [1] BOOKS :- Derivatives Dealers Module Work Book - NCFM (October 2005) Gordon and Natarajan, (2006) 'Financial Markets and Services' (third edition) Himalaya publishers
- [2] Reforms in Secondary Markets in India, Working paper from National stock exchange (NSE), India, (2000).
- [3] Pati, Pratap Chandra and Padhan, Purna Chandra, "Information, Price Discovery and Causality in the Indian Stock Index Futures Market", Journal Of Financial Risk Management, VI, 3 & 4, (2009), 7-10.

WEBSITES :- [http://www.nseindia/content/fo/fo\\_historicaldata.htm](http://www.nseindia/content/fo/fo_historicaldata.htm) [http://www.nseindia/content/equities/eq\\_historicaldata.htm](http://www.nseindia/content/equities/eq_historicaldata.htm)  
<http://www.derivativesindia/scripts/glossary/indexobasic.asp> <http://www.bseindia/about/derivati.asp#typesofprod.htm>



10.22214/IJRASET



45.98



IMPACT FACTOR:  
7.129



IMPACT FACTOR:  
7.429



# INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24\*7 Support on Whatsapp)