

# A Brief Study of Derivative Market in India: Options and Futures



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## Abstract

Derivatives such as options and futures, are financial contracts which derive their values from the underlying assets or securities. The Securities Laws Amendment Ordinance, promulgated by the President on 25-1-1995 has amended the Securities Contract Regulations Act 1956 and removed the prohibition on options in the preamble to the Act. The ordinance has paved the way for introduction options trading on stock exchanges. The National Stock Exchange of India Limited and other stock exchanges have introduced index based derivatives to facilitate hedging of risk exposures and speculations with high leverage. Options and futures are similar trading products that provide investors with the chance to make money and hedge current investments. An option gives the buyer the right, but not the obligation, to buy (or sell) an asset at a specific price at any time during the life of the contract. A futures contract gives the buyer the obligation to purchase a specific asset, and the seller to sell and deliver that asset at a specific future date unless the holder's position is closed prior to expiration. This paper describes the evolution of Indian derivatives market, and various types of options and futures related to derivatives market. The present paper is descriptive in nature and based on secondary data.

**Keywords:** Derivatives, Stock Exchange, Futures, Options, NSE.

## Introduction

An option seller is the right, but not the obligations to buy or sell something on a specified data at a specified data at a specified price .In the securities market, an option is a contract between two parties to buy or sell specified number of shares at a later date for an agreed price .Three parties are involved in the option trading -

1. The option seller,
2. The buyer and
3. The broker

The option seller or writer is a person who grants someone else the option to buy or sell. He receives a premium on its price. The option buyer pays a price to the option writer to induce him to write the option. The option buyer pays a price to the option writer to induce him to write the option. The securities broker acts as an agent to find the option buyer and the seller, and receives a commission or fee for it.

## Objective of the Study

The objectives of the study are as follows:

1. The primary objective of the study is to elucidate the various concepts of derivatives market
2. To study the evolution of the Indian derivative markets.
3. To review the present affecting factors the types of derivatives such as options and futures.
4. To examine the various issues in the Indian derivative market and future prospects of the market

## Review of Literature

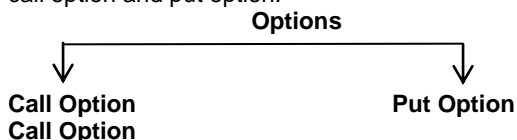
Punithavathy Pandian, Professor, Department of Commerce, Madurai Kamraj University has written the reference book on Security Analysis and Portfolio Management. A brief study has been done from the said book. Professor Punithavathy Pandian has described the types of derivative contracts. He speaks about four types of derivative contracts which include forwards, futures, options, and swaps. First, *forward contracts*- They are customized contractual agreements between two parties where they agree to trade a particular asset at an agreed upon price and at a particular time in future. These contracts are not traded on an exchange but privately traded over the counter. Second, *Futures contracts*- These are standardized version of the forward contract which takes place

between two parties where they agree to trade a particular contract at a specified time and at an agreed upon price. These contracts are traded on the exchange. Third, *Options*- It is an agreement between a buyer and a seller which gives the buyer the right but not the obligation to buy or sell a particular asset at a later date at an agreed-upon price.

Preeti Singh, Department of Commerce, Jesus Mary College, University of Delhi has discussed OTCEI i.e. Over the Counter Exchange of India. She said that the trading mechanism on OTCEI is quite different to other stock exchanges. It is based on a created tradable document called counter receipt (CR). Share certificates have to be converted to CR to begin trading. A sale confirmation slip called (SCS) is given to an investor when he sells the CR and the transaction is completed.

**Concepts of Options and Futures relating to Derivatives Market**

There are two types of options namely the call option and put option.



The call option that gives the right to buy in its contract gives the particulars of

1. The name of the company whose shares are to be bought

2. The number of shares to be purchased
3. The purchase price or the exercise price or the strike price of the shares to be bought
4. The expiration date, the date on which the contract or the option expires.

**Put Option**

Put option gives its owner the right to sell (or put) an asset or security to someone else. It is not an obligation but an option. The call option contract contains

1. The name of the company shares to be sold
2. The number of shares to be sold the selling price or the striking price
3. The expiration date of the option

**The Option Market**

Trading in option takes place in Chicago Board of options exchange, the American Stock Exchange, the Philadelphia, Baltimore and Washington Exchange. Options are traded in these stock exchanges and option contracts are standardized. Each option has a striking price. Options mature at specific times through the year, such as January, April, July and October. The exchange guarantees the performance of the contract even if there is a failure on the part of the original writer. The exchange provides information regarding the price volume and other related details. The table gives a sample of it.

**Sample Stock Option Listing (Rs.)**

Stock XYZ	Strike	Calls			Puts		
New York Close	Price	Jan	April	Jul	Jan	Apr	Jul
	70	63/8	81/4	r	1/16	3/4	r
76 1/2	75	21/2	47/8	63/4	11/16	21/4	31/20
76 1/2	80	7/16	21/4	r	35/8	5	r
76 1/2	85	1/16	11/8	21/2	83/8	r	r

R= not traded

A Stock option is identified by the company, expiration, striking price and the type of option whether it is put or call as given in table. For example, ABC Call option price is assumed to be Rs.6.25

An individual who buys one ABC OPTION (means 100 shares) on April Rs.130 call should pay RS 6.25/Share \*100=Rs. 625. The right to buy at Rs.130 is valuable when the stock price is Rs136.

The point to be remembered is that if the option is exercised, the investor can then buy the ABC shares Rs. 6.00 less than the market price. The option would have an intrinsic value of 6.00. But the investor has to throw away the remaining Re. 0.25(6.25 – 6.00) of option premium. The option premium is not a down payment on the option terms. The option premium is the option writer's right to keep no matter whatever happens to the stock price. The premium paid for the option does not count towards the cost.

**Futures**

Futures is a financial contract which derives its value from the underlying assets. For example Sugarcane or wheat or cotton farmers may wish to have contracts to sell their harvest at a future date to eliminate the risk of change in price by that date. Transactions take place through the forward and

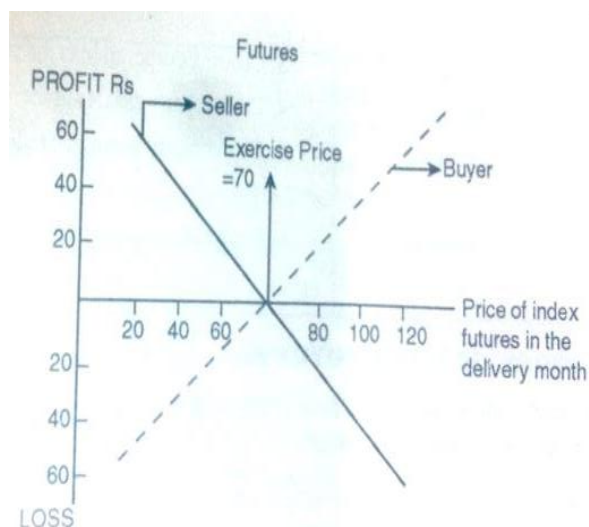
future markets. There are commodity futures and financial futures. In the financial futures there are foreign currencies, interest rates and market index futures. Market index futures are directly related with the stock market.

Future markets are designed to solve the problem of trading, and liquidity and counter party risk. Basically, future markets resemble the forward market. The three distinct features of future market are-

1. Standardized contracts
2. Centralized trading
3. Settlement through clearing houses to avoid counter party risk.

**Futures Vs. Options**

Futures and options are different from each other. When the option is out of the money on the expiration date, then the option become worthless can be left to lapse. But in the case of, futures, both the parties have to conclude this at the end of the expiration date. Either they have to reverse the trade or pay and settle it this figure shows the situation faced by the buyers and sellers of the futures contract



Whatever may be the fall in price of the underlying stock, the call buyer may not lose, even if he loses something that is only the premium. But the figure shows that when there is a fall in price of index futures, the buyers has to incur loss because he is obliged to buy. The dotted line below the X axis shows the loss incurred when the price falls below exercise price. The reverse is true with the seller.

#### Conclusion

An option is a contract between two investors that provides the buyers the right (but not the obligation) to sell or buy the specified asset from the other investors at the predetermined price within a specified period.

The call option gives the investor the right to buy (not the obligation) from the option writer at the specified price at any time during the specified period.

A put option gives the buyer the right to sell a specified member of stocks, the striking price of the stock and the option period.

The black Scholes theory says that the option price is determined by the market price of the

stock, the exercise price the life of the option, the risk free rate and the risk of the common stock. The last two factors are assumed to be constant over the option's life.

The stock index futures contracts made on the major stock market indices. It is an obligation and not an option

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