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CHAPTER 1: INTRODUCTION TO DERIVATIVES

The Harshad Mehta and dot com rally in the late 90's 2005 to 2008 Bull Market rally before supreme cruises 2013 to 2018 rally before eyelifts crises. All this phenomena has shown money can be made in easily in raising market. After famine after all this rally demonstrated that other side of coin and money can be white of in the seeming bling of an eye.

The dot.com phenomenon in the late nineties demonstrated the ease with which money can be made in a rising market. But as the aftermath of that phenomenon demonstrated there is a flip side to that coin. Paper profits can be wiped out and major losses incurred in the seeming blink of an eye.

Many people have concluded from their experiences during the market downturn that Stock market investing is very fickle. That there is a large element of luck in trading. That One must buy and sell at the right times, and that making the necessary decisions is often lead to lot of suffering misery and disappointed fraught. These uncertainties have made them fearful of the stock market and at the same time they have a desire to play the market with a view to enhancing their own financial positions.

This mix of emotions, the desire to participate allied with the tear of incurring losses, is frequently compounded by misconceptions about stock markets. Many people. For Example, would take it as given that money can only be made if stock prices rise. But Believe it or not, that would be incorrect! What would you say if you were told that there was a way to protect what you had invested? What if you were told that you could protect the stocks that you had invested your life savings in? Would you be interested in learning how to protect your money no matter how the stock performed? Even if the stock price fell.

What if you were told that you could generate money every month on stocks you already own? What if you could make money week on week by trading weekly option and just monitoring the market for 15 min a day. You would not have to wait passively for stock prices to rise but you could proactively generate cash each and every month. Would you be interested in learning how to do that?

The overall objective of this book is to explain how one can profit in the market Regardless of the direction in which it moves and how to do so with high since of personal control and stress free mind and a High sense of personal control. This book prove ides you with the necessary tools to be able to achieve this goal through the strategies of future and option trading. This knowledge, combined with an understanding of techniques and strategies for analyzing stocks with a view to determining their likely direction of future movement, should enable you to trade profitably and consistently in any market. These matters and all related matters are covered in detail in this book, as are suggestions as to precisely how one should move from a mastery of the skills involved to profitable market place trading.

The strategies proposed have been thoroughly tested and disciplined adherence to them should provide you with U inning Scow {Option Strategies they should yield Handsome and consistent profits over time coupled with tremendous personal satisfaction

1.1 Objectives

When you have completed this book you should have an excellent understanding of the following topics:

- How to answer the *million dollar* question how can I buy high, sell low and profit?
- What stocks to buy and *when* to buy them
- When to trade with the crowd and when to trade against the crowd
- *Eliminate greed* in your trading
- Proactively generate cash flow with stocks you own
- Eliminate fear in your trading
- How to insure your stocks when the market goes down
- How to profit in a down trending market
- How to profit using advanced strategies
- What exit strategies to use
- How to correctly apply strategies
- What brokerage should you use
- Money management

1.2 What is the profit potential and how can I achieve it?

In order to gain maximum benefit from this book you should plan on putting in the effort to get a good understanding of the principals involved and you should paper trade for a further period. It is also recommended that you refrain from real-life trading until such time as your command of the subject is producing 7 or 8 successful trades out of every 10.

Application of the strategies taught in this book could yield annual returns of 40% for low-medium risk strategies and much more if higher risk strategies are employed! Thus an initial investment of Rest. 1,00,000 is capable of being turned into Rs.53,7824 over five years, and into Rest. 28,92,546 over ten years. Indeed if the annual rate of return could be lifted to 50% and the term extended to fifteen years, the original Rs.10, 0000 would appreciate to well in excess of Rest. 43,789,389 So the potential is fantastic!

CHAPTER 2: INTRODUCTION TO OPTION

A financial instrument whose price is dependent upon or derived from one or more underlying awaits is called Derivatives the derivative itself is merely a contract between two or more panics let value determined by fluctuations in the underlying asset. The most common underlying asset', include stock, bonds, commodities, currencies, interest rates and marker indices. Most derivatives are characterized by high leverage.



TYPES OF DERIVATIVES

FORWARD

Forward Contract is a contract between two parties to buy sell an asset on a pre-specified future date at a pre specified price. Forward contracts is different from spot contract is a spot contract settlement comes at the time of contract while in Forward contract settlement comes on a prespecified future date. Forward contracts are traded only in Over the Counter (OTC) market and not in stock exchanges. OTC market is a private market where individuals/institutions can trade through negotiations on one to one basis. Forwards are private contracts and their terms are determined by the parties involved.

FORWARD CONTRACT SELLER

Features of forward contracts:

- . Custom tailored
- . Traded over the counter (not on exchanges)
- . Counterparty risk

Futures

FORWARD CONTRACT BUYES

Contract is an agreement between two parties to buy or sell an asset at a certain time at a certain price. Futures contracts are special types of forward contracts in the sense that the former are standardized exchange-traded contracts.



As far as Indian Equity market is Concern, NSE is having the most developed Equity Derivatives Market. They have launched 3 Month series for Future Contracts i.e. Current Month (I month Expiry. Next Month (2-month Expiry) and Far Month (3-month Expiry).

Options

An option is a contract between two parties where one party gives to the other the right. But not the agreed price. In return for giving the right, the party giving the right to collects payment from the other party. This payment collected is called the "premium" or price of the option

Swaps

Swaps are private agreements between two parties to exchange cash flows the future according to pre-agreed price. The two main types of swaps arc:

Interest rate swaps: This swaps only the interest related cash flow flows between the in the same currency.

<u>Currency swaps:</u> This swaps both principal and Interest between the parties with the cash flows in one direction being ma different currency than those in the opposite direction.

As mentioned earlier. an option is a contract between two party, where one party gives to the other the right, but not the obligation, lo buy from (or sell to) the First Party the underlying asset on 01 before a specific day at an agreed price. In return for giving the right, the party giving the right to collects payment front the other party. This payment collected is called the "premium" or price of the option.

TYPES OF OPTION

There are mainly two types of option:

<u>Call Option:</u> Call Option is the Options which give the right to buy.

Put Option: Put Option is the Options which give the right to sell.

Further option can he classified in two types based on exercising style:

American Option: American options are options that can be exercised at any time up to expiration

Date. In NSE all stock options are American type options.

European Option: European options are options that can be exercised at the time of maturity only. In

NSE all indices options are European type options. These options are easier to analyze then American

Options.

OPTIONS TERMINOLOGIES

Spot Price

Spot price is the current price at which a particular underlying can be bought or sold at a specified time and place.

Strike Price

Strike price is the price at which a specific derivative contract can be exercised. Strike prices are mostly used to describe stock and index options, in which strike prices arc fixed in the contract, for call option. Strike price is the price at which underlying can be bought, while for put options the strike price is the price at which underlying can be bought, while for put options the strike price is the price at which underlying can be bought, while for put options the strike price is the price at which underlying can be bought, while for put options the strike price is the price at which underlying can be sold.

The fixed price at which the owner of art Option can purchase (in the case of a call), or sell (in the case of a put) the underlying. It's the price at which the stock will be bought or sold the option exercised, the strike price is often called the exercise price.

Maturity Date

The date on which all open future and option of that series gets settled.

<u>Premium</u>

The total cost of option. This is the amount which option buyer pays to the Option Seller. The Premium of an option is basically the sum of the option's intrinsic and time value.

Exercise and Assignment

Exercise the used when the owner of a call or put (i.e. someone as along position in a call input) uses his right to buy (in the case of a call) or sell (in the case of a put) the stock. Assignment is the Terms used when someone who has short call or put is forced to sell (in the ease oldie call) or buy (in the ease of a put) the stack Remember. For every option trade there is a buyer and a seller, so if you are short in an option, there is someone who is long in that same option and who could exercise.

Intrinsic Value

Intrinsic value refers to the value of a security which contained in the security itself is also frequently is called fundamental value. It is ordinarily calculated by summing the future income generated by the asset, and discounting it to the present value. An option is said to have intrinsic value if the option is in-the-money. When out-of-money, its intrinsic value is zero.

Time Value

Time value = Option Value - Intrinsic Value.

More specifically, an options time value reflects the probability that (the option will gain its intrinsic value, become profitable to exercise before it expires this value depends upon the time period left for expiry and the volatility of the underlying instrument's price. The time value of an option is not negative because the option value is never lower than the intrinsic value, and converges towards zero with Time.

In The Money Options (ITM):

A call options is said to be" In the Money Option" when spot price is higher than strike price (ITM Call Spot Price > Strike Price). While a put option is said to be "In the Money Option' when Spot price is below Strike price (ITM Put = Spot Price < Strike Price). In the Money Options lead to a positive cash flow if it is exercised immediately.

Intrinsic value of in-the-money call option Underlying product, price strike price.

Intrinsic value of in-the-money put Option strike price - Underlying product price.

At The Money Options (ATM):

An option said to be "At the Money Option" when spot price and strike price are equal. (ATM option = spot price = strike price). At the money option lead to zero cash flow if it were exercised immediately.

Out of the Money Options (OTM):

A call options is said to be "Out of the Money Option" when spot price is below than strike price (OTM ("all Spot Price Strike Price"). While a put option is said to be "Out of the Money Option" when Spot price is higher Strike price (ITM Put= Spot Price> Strike Price).

CALL OPTION

As explained earlier, ('all Option is an option where buyer gets the right to purchase the underlying but not Any obligation Buyer of the ('all option expects the price to go tip and hence purchase right to buy at a Specified rate by paying premium ('all option buyer is getting the right to purchase from call option seller and pays the premium lo call option seller. The Maximum loss to the buyer of the Option is limited up to premium paid. If price rises than Call buyer earns unlimited profit. The maximum profit to the call seller is tip to premium received when market falls and he may make unlimited loss if market rises.

Example:

For Call Buyer

Mr. A has purchased the Nifty 28 June 2018, 10,500 Call Option at Rs.200.

Here Underlying is Nifty. Strike price is 10,500 Option is Call Option (Right to Purchase). Il Maturity (Expiry) is 28 June2018. Premium js Rs.200.

So when spot price goes up above 10,500, Mr. A will exercise his right to purchase Nifty at 10,500. So he will get benefit when market rises above 10,500. So if Market goes up to 5100 he will get Rs.100 hack but as he has paid Rs.200 as premium so his net loss would be Rs.100.



Pay-off for Call buyer

Now suppose Mr. X has sold the above option. Now his maximum is up to premium he received and his loss is unlimited, now when market moves the payoff seller is as follows:



Payoff for Call Seller

Break Even Point (BEP) for Call Option

BEP is a point when Options seller and buyer arrive at no profit and no loss situation. It is the price where trader is neither earning nor losing any money. Here, both buyer and seller remain at cost to cost.

For call option BEP Strike price + premium.

In above both example, 10500 + 200 = 10700. (Strike + Premium)

That means, when spot reaches 10700, Mr. X neither earns nor loses any money.

PUT OPTION

Put option is an option where buyer gets the right to sell the underlying but not any obligation. Buyer of the put option expects the price to go down. The maximum loss to the buy of the option it limited up to premium paid. If prices falls then put buyer earns unlimited profit. Let us look at one example to make it clear.

For Put Buyer

Me. Y has purchased the nifty 28 June 2018, 10,600 put option at Rs.100.

Here, Underlying is nifty || strike price is 10,600. || Option is put option (Right to Sell). ||Maturity (Expiry) is 28 June 2018. || Premium is Rs.100.

So when spot price falls below 10600. Mr. Y will exercise his right to sell nifty at 10600. So he will get benefits when market falls below 10600. So if market falls to 10400 he will get Rs.200 back but as he has paid Rs.100 as a premium so his net profit would be Rs.100.



For Put Seller

Now suppose Mr. Y has sold the above option. Now his maximum profit s up to premium he received and his loss is unlimited. Now when market moves the payoff seller is as follows:



Payoff for Put Seller

Break Even point (BEP) for Put option

BEP is a point when Options seller and buyer arrive at no profit and no Situation. It is price where trader is neither earning nor losing any money. Here both buyer and seller remain at cost to cost.

For Put option BEP = Strike price, premium.

In above both example, 10600 - 100 = 10500. (Strike. Premium).

That means, when spot reaches 10500, Mr. A neither earns nor loses any money.

OPTION PRICING

Intrinsic

Strike

Price

Value

Spot

Price

Option Pricing

Time

Value

Volatility

Rate of

Interest

Time To

Maturity

There are mainly 5 factor, which affects the pricing of an option.

- 1. Spot Price
- 2. Strike price
- 3. Time to maturity
- 4. Volatility
- 5. Rate of Interest

Intrinsic and Time Value:

The option price, or premium can be considered as the sum of two specific elements:

-Intrinsic Value

-Time Value

Intrinsic value:

The intrinsic value of an option is the amount an option holder can realize by exercising the option immediately. Intrinsic value is always positive or zero. An at-the-money and out-of-the-money option have zero intrinsic value.

Intrinsic value of in-the-money call option underlying price - strike price

Intrinsic value of in-the-money Put option strike price - underlying price

Time value:

The time value of an option is the value over and above the intrinsic value that the market places on the option. It can be considered as the value of the Continuing exposure to the movement in the Underlying product price that the option provides. The price that the market puts on this time value depends on a number of factor: time to expiry, volatility of the underlying product price, risk free interest rates and expected dividends.

Time to Expiry:

Time has value, since the longer the option has to go until expiry, the more opportunity there is for the underlying price lo move to a level such that the Option becomes in-the-money. Generally the longer the time to expiry, the higher is the Option's time value. As expiry approaches the value of an option tends to zero, arid the rate of time value decay accelerates.

Time value decay curve



VOLATILITY:

The volatility of an option is a measure of the probability of the price movements of the underlying Instruments Volatility is normally expressed in annualized terms the more volatile the underlying Instruments, the greater the time value of the option will be. Volatility does not measure the direction of' price change. This means that greater the uncertainty for an option seller higher is the premium he will charge or he compensated. Thus option prices increase as volatility rises and decreases volatility falls.

PARTICULARS	CALL OPTION	PUT OPTION
Spot	Positive	Negative
Strike	Negative	Positive
Time	Negative	Negative
Volatility	Positive	Positive

RELATIONSHIP BETWEEN OPTION PRICE AND ITS VARIABLES

Rate of interest

Positive

Negative

CALL AND PUT OPTION SERIES OF LIFTING



				-																		
Chart	01	Chng in Ol	Volume	IV	LTP	Net Chng	Bid Qty	Bid Price	Ask Price	Ask Qty	Strike Price	Bid Qty	Bid Price	Ask Price	Ask Qty	Net Chng	LTP	IV	Volume	Chng in Ol	01	Chart
A	65,175	-225	9	-	821.30	-8.70	75	862.75	874.85	75	10100.00	300	16.10	17.20	75	-7.95	16.50	19.65	8,880	-8,850	683,475	1
A							75	743.70	850.65	75	10150.00	450	15.05	26.00	75	-9.70	18.30	19.19	18	375	1,425	1
1	150,150	-1,050	39	-	775.00	40.80	75	773.00	780.25	75	10200.00	75	22.00	22.60	375	-9.05	22.55	19.07	13,845	-12,975	1,169,250	1
A	75			-	-	•	75	653.25	751.80	75	10250.00	75	25.25	26.90	150	-7.05	26.55	19.08	213	5,250	15,150	1
A	165,975	-4,500	160		684.00	35.00	75	677.90	685.85	75	10300.00	75	28.65	29.20	150	-11.95	29.20	18.55	20,477	-105,000	1,191,750	1
1		-		-	-		75	626.75	667.10	75	10350.00	75	33.60	51.30	75	-12.85	34.00	18.38	283	-975	18,825	1
A	160,500	-9,675	351	-	594.00	32.45	75	589.00	595.55	75	10400.00	75	38.00	38.30	225	-14.95	38.20	17.96	29,948	-33,525	1,766,400	1
A	1,950	-225	25	-	530.00	-5.00	150	538.75	564.30	75	10450.00	150	42.40	49.00	300	-16.10	43.70	17.76	907	300	26,025	1
1	391,950	-33,975	1,450	10.71	507.00	29.50	975	507.00	508.00	75	10500.00	150	50.20	51.00	375	-18.20	50.45	17.45	59,497	296,475	3,613,950	1
A	5,025	150	4	8.70	453.35	-21.85	75	458.85	475.50	75	10550.00	75	58.00	59.75	75	-18.80	58.00	17.23	1,247	7,650	48,375	1
A	474,075	-10,950	2,066	12.31	426.50	26.90	75	420.60	428.00	75	10600.00	375	65.90	67.00	2,625	-20.45	67.00	16.99	50,118	900	1,674,750	1
1	6,750		19	12.30	385.60	26.60	150	379.70	394.60	75	10650.00	75	76.90	78.00	75	-21.60	77.00	16.87	1,623	12,225	49,650	1
A	714,525	-375	5,282	12.52	349.00	24.90	75	346.20	349.95	75	10700.00	2,850	88.00	88.65	75	-23.70	88.95	16.55	53,613	313,800	2,170,350	1
A	18,375	-2,175	220	12.97	315.00	24.85	150	311.00	315.00	150	10750.00	225	101.30	102.80	300	-24.90	102.00	16.38	2,196	6,300	71,100	1
1	1,396,275	-12,750	20,226	12.73	277.50	21.35	75	277.00	277.50	600	10800.00	6,375	115.50	116.75	75	-25.05	117.00	16.15	67,923	422,850	2,377,500	1
A	44,850	2,250	4,865	12.78	243.10	18.70	150	243.00	245.25	600	10850.00	75	133.05	133.70	75	-27.55	132.65	16.06	5,829	35,925	234,900	1
A	1,844,775	-43,650	61,695	12.59	211.00	16.25	375	211.00	212.00	225	10900.00	75	149.00	150.00	975	-28.25	150.00	15.73	43,299	76,200	1,416,600	1
1	127,800	21,525	4,815	12.52	184.15	16.45	75	183.10	184.20	150	10950.00	825	168.40	173.00	1,050	-30.70	170.00	15.51	1,369	-2,850	57,225	1
A	2,681,925	41,700	89,396	12.36	155.00	13.95	900	155.00	156.00	9,225	11000.00	225	189.00	192.00	1,500	-31.55	192.00	15.38	24,445	54,000	2,093,550	1
1	56,775	7,875	2,581	12.28	130.50	12.15	75	130.00	131.95	225	11050.00	75	200.70	236.70	75	-39.90	207.90	14.64	93	2,925	3,975	1
1	1,810,875	225,000	59,284	12.08	108.10	10.45	825	108.10	108.50	1,350	11100.00	750	238.40	244.95	750	-34.40	243.00	15.11	3,458	37,950	176,850	1
A	39,825	3,075	1,561	11.90	87.40	7.45	75	87.00	88.00	75	11150.00	75	264.00	280.00	75	-48.25	264.05	14.43	17	300	825	1
1	2,822,775	-1,275	74,392	11.73	69.65	6.00	300	69.70	70.00	4,500	11200.00	600	298.05	302.00	5,550	-44.05	298.10	14.68	3,684	44,400	696,525	1
1	37,575	-1,575	1,364	11.64	55.50	5.50	75	55.50	55.95	75	11250.00	75	326.60	350.00	75	-36.90	346.35	15.82	3		225	1
A	1,564,500	51,675	39,386	11.50	43.05	4.25	1,350	43.05	43.35	900	11300.00	75	368.45	376.45	75	-41.70	373.00	14.57	367	-5,400	230,325	1
1	29,175	12,900	731	11.38	33.00	3.55	75	32.00	33.50	225	11350.00	75	398.35	425.40	75			-			75	1
1	989,925	-105,525	28,753	11.27	24.60	2.45	1,950	24.60	25.00	2,400	11400.00	75	447.20	455.70	75	-49.25	447.00	14.71	38	825	82,500	1
A	12,525	1,950	123	11.48	20.00	3.55	75	17.20	20.30	75	11450.00	150	483.75	510.00	75	-	-	-	-	-	-	1
A	2,313,825	169,575	34,011	11.19	13.50	0.95	150	13.60	13.85	450	11500.00	75	535.75	543.20	150	-48.60	535.90	16.06	922	-4,500	821,325	2
1	11,775	1,800	245	11.17	10.05	-0.35	150	10.05	10.45	75	11550.00	600	572.05	641.25	600	-	-	-	-	-	75	1
	759,000	27,000	13,410	10.98	6.70	0.25	1.725	6.55	6.80	1,425	11600.00	1,500	630.05	631.00	300	-43,80	631.00	16.91	559	-9,975	36,300	1

CHAPTER 3: OPTION BASIC STRATEGIES

Before we buy or sell options we need a strategy, and before we choose an options strategy, we need to understand how we want option to work in our portfolio. A particular strategy is successful only if it performs in way that helps us meet our investment goals.

Simple option strategies are usually the way to begin investing with options. By mastering simple strategies you all prepare yourself for advanced options trading. In general. The more complicated options strategic are an appropriate only for experienced investors.

Once you've decided on an appropriate options strategy, it's important to stay focused. That might seem obvious. But the fast pace options market and the complicated nature certain transactions make it default for some inexperienced investors to stick to their plan. If it seems that the market or underlying security isn't moving in the direction you predicted, it's possible that you'll minimize your losses by exiting early. But it also possible that you'll miss out on a future beneficial change in direction That's why many experts recommend that you designate an exit strategy or cut-off point ahead of time, and hold firma. For example, if you plait to sell a covered call, you might decide that if the option moves 20% it-the-money before expiration, the loss you'd face if the option were exercised and assigned to you is unacceptable, But if it moves only 10% in-the-money, you'd he confident that there remains enough chance of moving out-the-money to make it worth the potential loss.

Let us now proceed towards understanding strategy. The strategies are explained in very structured manner and in a way easy to understand. Strategies arc classified in a various way depending on its usage and the way the strategy is formed.

BULLISH STRATEGIES

Long Call

Investor uses long call when he is bullish about the market. A long call is the purchase of one call option.

Market scenario	Bullish on market and bullish on volatility
Risk	Limited
Reward	Unlimited
BEP	Call strike + premium

Example:

ENTRY



BEP = 106000 + 50 = 10650

On Exit if:

SPOT	CALL PAY-OFF	PREMIUM	STRATEGY PAY OFF
10300	0	-50	-50
10400	0	-50	-50
10500	0	-50	-50
10600	0	-50	-50
10650	50	-50	0
10700	100	-50	50
10800	200	-50	150
10900	300	-50	250
11000	400	-50	350

Long call – Strategy Pay-off



Short Put

Investor uses long call when he is bullish on the market direction and bearish on market volatility. A short put is simply the selling of one put option.

Market scenario	Bullish on market and bearish on volatility					
Risk	Unlimited					
Reward	Limited to premium					
BEP	strike - premium					

Example:

BEP = 10600 - 50 = 10550



On Exit if:

SPOT	PUT PAY-OFF	PREMIUM	STRATEGY PAY OFF
10300	-300	50	-250
10400	-200	50	-150
10500	-100	50	-50
10600	-50	50	0
10650	0	50	50
10700	0	50	50
10800	0	50	50
10900	0	50	50
11000	0	50	50



Bull Call Spread (BUY CALL + SELL CALL)

Establishing a bull call spread involves the purchase of a call option on a particular underlying stock. While simultaneously writing a call option on the same underlying stock with the same expiration month. At a higher strike price. Both the buy and the sell sides of this spread are opening transactions. And are always the same number of contracts. This spread is sometimes more broadly categorized as a "vertical spread". The bull call spread, as any spread, can be executed as a "unit" in one single transaction, not as separate buy and sell transactions.

Market scenario	Moderately Bullish to Bullish				
Risk	Limited				
Reward	Limited				
BEP	strike price of purchased Call + Net Debit Paid				

Example:

Entry:	Spot	10500	
	strike		premium
BUY CALL	10600		60
SELL CALL	10700		30

BEP = 10600 + 30 = 10680

SPOT	BUY CALL PAY-OFF	SELL CALL PAY-OFF	STRATEGY PAY OFF
10300	-60	30	-30
10400	-60	30	-30
10500	-60	30	-30
10600	-60	30	-30
10650	-30	30	0
10700	40	30	70
10800	140	-70	70
10900	240	-170	70
11000	340	-270	70

Bull Call Spread – Strategy Pay-off



BEARISH STRATEGIES

Short Call

When you buy a Call you are hoping that the underlying stock index would rise. When you expect the Underlying stock index to fall you do the opposite. When an investor is very bearish about a stock/ index and expects prices to fall. He can sell Call options. This position offers limited profit potential and the possibility of large OSSCs on big advances in underlying prices. Although easy to execute it is a risky strategy the seller of the Call is exposed to unlimited risk.

Market scenario	Bearish
Risk	Unlimited
Reward	Limited
BEP	Call strike + Premium

EXAMPLE:

Entry:

	Spot	10600	
	strike		premium
SELL CALL	10500		150

BEP = 10500 + 50 = 10550

SPOT	CALL PAY-OFF	PREMIUM RECEIVED	STRATEGY PAY OFF
10300	0	150	150
10400	0	150	150
10500	0	150	150
10600	-100	150	50
10650	-150	150	0
10700	-200	150	-50
10800	-300	150	-150
10900	-400	150	-250
11000	-500	150	-350



Long Put

Buying a Put is the opposite of buying a Call. When you buy a Call you are bullish about the stock / index. When an investor is bearish, he can buy a Put option. A Put Option gives the buyer of the Put a right to sell the stock (to the Put seller) at a pre-specified price and thereby limit his risk.

Market scenario	Bearish
Risk	Limited (Premium Paid)
Reward	Unlimited
BEP	Call strike - Premium

EXAMPLE:

Entry:

	SPOT	1060	0
	STRIKE		PREMIUM
SELL PUT	10500		50
BEP = 10500 - 50 = 10450			
MASTER MIND DERIVATIVE DIPLOMA	- MONEYMINT		

On Exit If:

SPOT	PUT PAY-OFF	PREMIUM PAID	STRATEGY PAY OFF	
10200	300	-50	250	
10300	200	-50	150	
10400	100	-50	50	
10500	50	-50	0	
10600	0	-50	-50	
10650	0	-50	-50	
10700	0	-50	-50	
10800	0	-50	-50	
10900	0	-50	-50	

Long Put – Strategy Pay-off



Bear Put Spread (BUY PUT + SELL PUT)

Establishing a bear put spread involves the purchase of a put option on a particular underlying stock, while simultaneously writing a put option on the same underlying stock with the same expiration month. But with a lower strike price, both the buy and the sell sides of this spread are opening transactions, and are always the same number of contracts. This spread is sometimes more broadly categorized as a "vertical spread". The bear put spread, as any spread, can be executed as a "package" in one single transaction, not as separate buy and sell transactions.

Market scenario	Moderately Bearish to Bearish		
Risk	Limited		
Reward	Limited		
BEP	Strike price of purchased Put – Net Debit Paid		

EXAMPLE:

Entry:

	SPOT	10500)
	STRIKE		PREMIUM
BUY PUT	10400		60
SELL PUT	10300		30

BEP = 10400 - 30 = 10370

On Exit if:

SPOT	BUY PUT PAY-OFF	SELL PUT PAY-OFF	STRATEGY PAY OFF
10100	240	-170	70
10200	140	-70	70
10300	40	30	70
10370	-30	30	0
10400	-60	30	-30
10500	-60	30	-30
10600	-60	30	-30
10700	-60	30	-30
10800	-60	30	-30
10900	-60	30	-30





STRADDLE STRATEGIES

Long Straddle (BUY CALL + BUY PUT of same strike.)

A Straddle is a volatility strategy and is used when the stock price index is expected to show large movements. This strategy involves buying a call as well as put on the same stock index for the same maturity and strike price, to take advantage of a movement in either direction. A soaring or plummeting value of the stock! Index. If the price of the stock / index increases, the call is exercised while the put expires worthless and if the price of the stock / index decreases. The put is exercised, the call expires worthless.

Market scenario	Volatile
Risk	Limited (Net Premium Paid)
Reward	Unlimited
BEP	Upper Break – even point= Strike price of long call + net premium paid Lower Break – even point = Strike price of long put – Net premium Paid

EXAMPLE:

Entry:

	SPOT	10600	
		STRIKE	PREMIUM
BUY CALL		10500	137
BUY PUT		10500	70

UPPER BEP: 10500 + 207 = 10707

LOWER BEP: 10500 – 207 = 10293

On Exit if:

SPOT	CALL PAY-OFF	PUT PAY-OFF	STRATEGY PAY OFF
10100	-137	330	193
10200	-137	230	93
10293	-137	137	0
10300	-137	130	-7
10400	-137	30	-107
10500	-137	-70	-207
10600	-37	-70	-107
10700	63	-70	-7
10702	70	-70	0
10800	163	-70	93
10900	263	-70	193

LONG STRADDLE STRATEGY PAY OFF



Short Straddle (SELL CALL + SELL PUT of same strike)

A Short Straddle is the opposite of Long Straddle. It is a strategy to be adopted when the investor feels the market will not show much movement. He sells a Call and a Put on the same stock index for the same maturity and strike price. It creates a net income for the investor. If the stock /index does not move much in either direction, the investor retains the Premium as neither the Call nor the Put will be exercised. However, in case the stock index moves in either direction, up or down significantly, the investor's losses can be significant. So this is a risky strategy and should be carefully adopted and only when the expected volatility in the market is limited.

Market scenario	Les Volatile
Risk	Unlimited
Reward	Limited to the Premium received
BEP	Upper Breakeven point= Strike price of short call + net premium received
	Lower Breakeven point = Strike price of short put – Net premium received

EXAMPLE:

Entry:

	SPOT		106	600	
		STRI	(E	PRE	MIUM
SELL CA	LL	1050	0	:	122
SELL PL	JT	1050	0		85

UPPER BEP: 10500+207 = 10707 Fxit if

LOWER BEP: 10500-207 = 10293On

SPOT	CALL PAY-OFF	PUT PAY-OFF	STRATEGY PAY OFF
10100	122	-315	-193
10200	122	-215	-93
10293	122	-122	0
10300	122	-115	7
10400	122	-15	107
10500	122	85	207
10600	22	85	107
10700	-78	85	7
10707	-85	85	0
10800	-178	85	-93
10900	-278	85	-193



Short Straddle – Strategy Pay-Off

STRANGLE STRATEGIES

Long Strangle (Buy OTM Call + Buy OTM Put)

Short strangle involves the simultaneous buying of a slightly out-of-the-money (OTM) put and a slightly outof-the-money (OTM) call of the same underlying and expiration date. Strangle strategies are suggested over straddle because strangle is low cost strategy.

Market scenario	Neutral (Movement is Range Bound)		
Risk	Limited to net premium paid		
Reward	Unlimited		
BEP	Upper BEP: Call Strike + Net premium		
	Lower BEP: Put Strike - Net premium		

EXAMPLE:

Entry:

	SPOT		106	00	
		STRIKE		PRE	MIUM
BUY CA	LL	10600			50
BUY PL	JT	10400			40

UPPER BEP: 10600 + 90 = 10690

LOWER BEP: 10400 - 90 = 10310

On Exit if:

SPOT	CALL PAY-OFF	PUT PAY-OFF	STRATEGY PAY OFF
10200	-50	160	110
10300	-50	60	10
10310	-50	50	0
10400	-50	-40	-90
10500	-50	-40	-90
10600	-50	-40	-90
10690	40	-40	0
10700	50	-40	10
10800	150	-40	110



Short Strangle (Sell OTM call + sell OTM put)

Short strangle involves the simultaneous selling of a slightly out-of-the-money (OTM) put and an out-of-themoney (OTM) call of the same underlying stock and expiration date.

Market scenario	Neutral (Movement is Range Bound)	
Risk	Unlimited	
Reward	Limited to total premium received	
BEP	Upper BEP: Call Strike + Net premium	
	Lower BEP: Put Strike - Net premium	

EXAMPLE:

Entry:

	SPOT	1050	0
	STRI	KE	PREMIUM
BUY CALL	10600		50
BUY PUT	10400		40

UPPER BEP: 10600 + 90 = 10690

LOWER BEP: 10400 - 90 = 10310

On Exit If:

SPOT	CALL PAY-OFF	PUT PAY-OFF	STRATEGY PAY OFF
10200	50	-160	-110
10300	50	-60	-10
10310	50	-50	0
10400	50	40	90
10500	50	40	90
10600	50	40	90
10690	-40	40	0
10700	-50	40	-10
10800	-150	40	-110



Long Call Butterfly (Sell 2 ATM Call + Buy I ITM Call + Buy 1 OTM Call)

A Long Call Butterfly is to be adopted when the investor is expecting very little movement in the stock price / index. The investor is looking to gain from low volatility at a low cost. The strategy offers a good risk / reward ratio, together with low cost. The strategy can be done by selling 2 ATM Calls, buying 1 ITM Call, and buying 1 OTM Call options.

Market scenario	When the investor is neutral to market direction and bearish in volatility
Risk	Net premium paid
Reward	Limited to (Difference between adjacent strikes- net debit)
BEP	Upper BEP: Strike price of higher strike long call - Net premium
	Lower BEP: Strike price of lower strike long call + Net premium

EXAMPLE:

Entry:

	SPOT		10500	
		STRIKE	PR	EMIUM
BUY 1 ITM P	UT	10600		224
SELL 2 ATM P	UT	10500	16	8*2=336
BUY 1 OTM P	UT	10400		121

UPPER BEP: 10600 – 9 = 10591

LOWER BEP: 10400 + 9 = 10409

On Exit If:

SPOT	ITM PUT	ATM PUT	OTM PUT	STRATEGY PAY OFF
10200	176	-264	79	-9
10300	76	-64	-21	-9
10400	-24	136	-121	-9
10409	-33	154	-121	0
10500	-124	336	-121	91
10591	-215	336	-121	0
10600	-224	336	-121	-9
10700	-224	336	-121	-9
10800	-224	336	-121	-9

Long Put Butterfly – Strategy Pay-Off



Short Call Butterfly (Buy 2 ATM Call Sell 1 ITM Call Sell 1 OTM Call)

A Short Call Butterfly is a strategy for volatile markets. It is the opposite of Long Call Butterfly, which is a range bound strategy. The Short Call Butterfly can be constructed by selling one lower striking in-the- money Call, buying two at-the-money Calls and selling another higher strike out-of-the-money Call, giving the investor a net credit (therefore it is an income strategy). There should be equal distance between each strike. The resulting position will be profitable in case there is a big move in the stock index.

Market scenario	You are neutral on market direction and bullish in volatility	
Risk	Limited (Net difference between the adjacent strike (Rs. 100 in example)-	
	premium)	
Reward	Limited to the premium received	
BEP	Upper BEP: Strike price of highest strike Short Call - Net premium Received	
	Lower BEP: Strike price of lowest strike long Call + Net premium Received	

EXAMPLE:

Entry:

	STRIKE	PREMIUM
SELL 1 ITM CALL	10400	122
BUY 2 ATM CALL	10500	80*2=160
SELL 1 OTM CALL	10600	41
	2 - 10007	

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UPPER BEP: 10600 – 3 = 10597
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LOWER BEP: 10400 + 3 = 10403

On Exit If:

SPOT	ITM CALL	ATM CALL	OTM CALL	STRATEGY PAY OFF
10200	122	-160	41	3
10300	122	-160	41	3
10400	122	-160	41	3
10403	119	-160	41	0
10500	22	-160	41	-97
10097	-75	34	41	0
10600	-78	40	41	3
10700	-178	240	-59	3
10800	-278	440	-159	3



Short Call Butterfly – Strategy Pay-Off

Short Put Butterfly (Buy 2 ATM Put, Sell 1 ITM Put, Sell 1 OTM Put)

A Short Put Butterfly is a strategy for volatile markets. It is the opposite of Long Put Butterfly, which is a range bound strategy. The Short Put Butterfly can be constructed by Selling one lower striking in-the- money Put, buying two at-the-money Put and selling another higher strike out-of-the-money Put, giving the investor a net credit (therefore it is an income strategy). There should be equal distance between each strike. The resulting position will be profitable in case there is a big move in the stock / index.

Market scenario	Neutral on market direction and bullish on volatility		
Risk	Limited (Net difference between the adjacent strike (Rs. 100 in example)-		
	premium)		
Reward	Limited to the premium received		
BEP	Upper BEP: Strike price of highest strike Short Call - Net premium Received		
	Lower BEP: Strike price of lowest strike long Call + Net premium Received		

EXAMPLE:

Entry:

	SPOT	10500		
	STE	RIKE	PR	EMIUM
SELL 1 ITM PUT	SELL 1 ITM PUT 106			121
BUY 2 ATM PUT	2 ATM PUT 105		80	*2=160
SELL 1 OTM PUT	10	400		42

UPPER BEP: 10600-3 = 10597

LOWER BEP: 10400+3 = 10403

On Exit If:

SPOT	ITM CALL	ATM CALL	OTM CALL	STRATEGY PAY OFF
10200	-279	440	-158	3
10300	-179	240	-58	3
10400	-79	40	42	3
10403	-76	34	42	0
10500	-21	-160	42	-97
10097	118	-160	42	0
10600	121	-160	42	3
10700	121	-160	42	3
10800	121	-160	42	3

Short Put Butterfly – Strategy Pay-Off



CONDOR STRATEGIES

LONG CALL CONDOR

A long call condor is very similar to a long butterfly strategy. The differences is that the two middle sold option have different strikes.

Market scenario	Low Volatility		
Risk	Limited		
Reward	Limited		
BEP	Upper BEP: highest strike - Net premium		
	Lower BEP: lowest strike + Net premium		

EXAMPLE:

Entry:

	SPOT		10500			
			STRIKE		PREMIUM	
BUY 1 IT	M CALL		10300		284	
SELL 1 IT	SELL 1 ITM CALL		10400		221	
SELL 1 OT	M CALL		10600		124	
BUY 1 OT	M CALL		10700		90	

UPPER BEP: 10700-29 = 10671

LOWER BEP: 10300+29 =10329

On Exit if:

SPOT	BUY ITM	SELL ITM	SELL OTM	BUY ATM	STRATEGY PAY OFF
10200	-284	221	124	-90	-29
10300	-284	221	124	-90	-29
10329	-255	221	124	-90	0
10400	-184	221	124	-90	71
10600	16	21	124	-90	71
10671	87	-50	53	-90	0
10700	116	-79	24	-90	-29
10800	216	-179	-76	10	-29



Long Call Condor – Strategy Pay-off

LONG PUT CONDOR

A long put condor is very similar to long butterfly strategy. The difference id that the two middle sold option have different strikes.

Market scenario	Low Volatility
Risk	Limited
Reward	Limited
BEP	Upper BEP: highest strike - Net premium
	Lower BEP: lowest strike + Net premium

EXAMPLE:

Entry:

	9	БРОТ	105	500	
		STRI	KE	PRE	MIUM
BUY 1 ITM	1 PUT	107	00		284
SELL 1 ITM	1 PUT	106	00		221
SELL 1 OTM	/I PUT	104	00		124
BUY 1 OTM	/I PUT	103	00		90

UPPER BEP: 10700-29 = 10671

LOWER BEP: 10300+29 = 10329

SPOT	BUY ITM	SELL ITM	SELL OTM	BUY ATM	STRATEGY PAY OFF
10200	216	-179	-76	10	-29
10300	116	-79	24	-90	-29
10329	87	-50	53	-90	0
10400	16	21	124	-90	71
10600	-184	221	124	-90	71
10671	-255	221	124	-90	0
10700	-284	221	124	-90	-29
10800	-284	221	124	-90	-29

On Exit if:

Long Put Condor – Strategy Pay-Off



SHORT CALL CONDOR

A short call condor is very similar to a short butterfly strategy. The difference is that the two middle bought option have different strikes.

Market scenario	Market will cross range but not sure in which direction
Risk	Limited
Reward	Limited
BEP	Upper BEP: highest strike - Net premium
	Lower BEP: lowest strike + Net premium

	SPOT		10500		
		STR	IKE	PR	EMIUM
SELL 1 ITM	M CALL 10 [°]		700		284
BUY 1 ITM	A CALL	106	500		221
BUY 1 ITM	TM CALL 104		100		124
SELL 1 ITM	M CALL	CALL 103			90

UPPER BEP: 10700-29 = 10671

LOWER BEP: 10300+29 = 10329

On Exit if:

SPOT	SELL ITM	BUY ITM	BUY OTM	SELL OTM	STRATEGY PAY OFF
10200	284	-221	-124	90	29
10300	284	-221	-124	90	29
10329	284	-221	-124	90	0
10400	184	-192	-124	90	-71
10500	84	-121	-124	90	-71
10600	-16	-21	-124	90	-71
10671	-87	50	-53	90	0
10700	-116	79	-24	90	29
10800	-216	179	76	-10	29



SHORT PUT CONDOR

A short put condor is very similar to a short butterfly strategy. The difference is that the two middle bought option have different strikes.

Market scenario	Market will cross range but not sure in which direction
Risk	Limited
Reward	Limited
BEP	Upper BEP: highest strike - Net premium
	Lower BEP: lowest strike + Net premium

EXAMPLE:

Entry:		SPOT	105	00		
		STRI	(E	PRE	MIUM	
	SELL 1 ITM PUT	1070	0	2	284	
	BUY 1 ITM PUT	1060	0	2	221	
	BUY 1 ITM PUT	1040	0	:	124	
	SELL 1 ITM PUT	1030	0		90	

UPPER BEP: 10700-29 = 10671

LOWER BEP: 10300+29 = 10329

On Exit if:

SPOT	BUY ITM	SELL ITM	SELL OTM	BUY ATM	STRATEGY PAY OFF
10200	-216	179	76	-10	29
10300	-116	79	-24	90	29
10329	-87	50	-53	90	0
10400	-16	-21	-124	90	-71
10600	184	-221	-124	90	-71
10671	255	-221	-124	90	0
10700	284	-221	-124	90	29
10800	284	-221	-124	90	29

Short Put Condor – Strategy Pay-Off



CHAPTER 4: OPTION GREEKS

To maintain a large portfolio efficiently, thorough knowledge of Option Greeks is very important. Option Greeks give a thorough understanding of the portfolio's position. The value of each option Greek has its own importance while taking and cutting position. Trader should know the level of Greeks to maintain the portfolio efficiently. By taking neutral position on Greek, trader can maintain profit while minimizing risk. Let us understand Greeks in details to have a thorough idea. DELTA (A):



DELTA

Delta measures the change in option price for a unit change in the price of underlying. So if my delta is 0.46 it shows that for each unit increase in underlying options price will increase by 0.46 and for each unit decrease in underlying my options price will decrease by 0.46.

Important points for DELTA:

- Delta of Call Option is always positive and Delta of Put Option is always negative.
- When you buy Call Option, Delta is positive and when you sell Call Option, delta is negative.
- When you buy Put Option, delta is negative and when you sell Put Option, delta is positive.
- Call Delta ranges from O to I and Put Delta ranges from 0 to-I.
- Total of absolute value of Call Delta and Put Delta always comes to 1.
- Delta of Future Is always 1.

When you buy Call Option, Positive Delta multiplies by Positive Quantity, hence gives Positive Portfolio Delta. This signifies that buying Call Option means Bullish Position.

When you sell Call Option, Positive Delta multiplies by Negative Quantity, hence gives Negative Portfolio Delta. This signifies that Selling Call Option means Bearish Position.

When you buy Put Option, Negative Delta multiplies by Positive Quantity, hence gives Negative Portfolio Delta. This signifies that buying Put Option means Bearish Position.

When you sell Put Option, Negative Delta multiplies by Negative Quantity, hence gives Positive Portfolio Delta. This signifies that Selling Put Option means Bullish Position.

BUY CALL	DELTA LONG
SEELL CALL	DELTA SHORT
BUY PUT	DELTA SHORT
SELL PUT	DELTA LONG