

Options Trading strategies

info@watsonmiller.org
watsonmiller.in@gmail.com

www.watsonmiller.org
7676938934

Future Contract

- Futures are derivative contracts to buy or sell a specified quantity or underlying assets at an agreed price, on or before a specified time. They are standardized forward contracts, which are traded on the exchanges mainly BSE & NSE. Since they are traded on the exchange on electronic platform, it provides them transparency, liquidity, and also eliminates the counter party risk due to guarantee provided by the exchange.
- Derivative market is a leverage market since Investor/Trader has to pay only fraction of total value of the contract as a margin to his broker, who in turn has to pay to the exchange.
- Currently in India we have 3 months Futures contracts available for trading
- On last Thursday of each month these contracts expires and then they are settled at a closing price of underlying cash market.

Futures Terminology

- *Spot price* :- Price at which an asset trades in the spot market
- *Future price* :- Price at which the future contract trades in the futures market.
- *Contract cycle* :- Period over which a contract trades.
- *Expiry date* :- It is the date specified in the futures contracts. This is the last day on which the contract will be traded, at the end of which it will cease to exist.
- *Contract size* :- The amount of asset that has to be delivered under one contract.
- *Basis* :- Basis means future price minus spot price.
- *Cost of carry* :- The relationship between future price and spot price.
- *Initial margin* :- The amount that must be deposited in the margin account at the time a future contract is first entered into is known as initial margin.

Open Interest

Period		Trader 1		Trader 2		Trader 3	Open Interest
0							0
1		Short		Long			1
2				Short		Long	1
3		Long				Short	0

http://www.nseindia.com/products/content/derivatives/equities/homepage_fo.htm

OPEN INTEREST

Open Interest

Total Number of options or future contracts that are NOT closed in a particular trading cycle

Time	Trading Activity	Open Interest
March 1	A Buys 1 option and B Sell 1 Option Contract	1
March 2	C buys 5 options and D sells 5 options	6
March 3	A sells his 1 option and D buys 1 option contract	5
March 4	E buys 5 options from C who sells 5 option contracts	5

Futures Trading Strategies on OI

- Price, Volume and Open Interest are three significant parameters which help you in forecasts.
- A grid in the following lines will be useful.

Price	Volume	Open Interest	Market
Rising	Up	Up	Strong
Rising	Down	Down	Weak
Declining	Up	Up	Weak



Derivatives

Equity Derivatives

[› Current Market Reports](#)[› Historical Data](#)[› Contract-wise Price
Volume Archives](#)[› Archives of Daily
/ Monthly Reports](#)[› Business Growth](#)[› Monthly Settlement
Statistics](#)[› Mode of Trading](#)[› Position of Group of
Connected Clients](#)[› Internet Trading](#)[› About Equity Derivatives](#)

Other Derivatives

Archives of Daily / Monthly Reports (FO)

Select the reports you want:

Select Report:

Date(DD-MM-YYYY):

Select Report

Select Report

Bhavcopy

Market Activity Report

SPAN Risk Parameter files

Daily Volatility files

Daily Settlement Price files

Daily Client wise Position Limits

Security in ban period

NSE Open Interest

Combine Open Interest

Category wise turnover

NSE Market Pulse

Derivatives Update

Exercise

Clients Position % greater than equal to 3% of Stock MWPL

Participant wise Trading Volumes

Participant wise Open Interest

Top 10 Clearing Member Volumes

FII Derivative Stats

Related links

Current Day's Reports

[› F&O Daily Reports](#)[› CD Daily Reports](#)[› All Daily Reports](#)

Historical Data

[› F&O Monthly Reports](#)[› F&O Contract wise price volume
Archives](#)[› CD Contract wise price volume
Archives](#)

Clearing & Risk

[› Equity Derivatives](#)[› Security in Ban period](#)[› Currency Derivatives](#)

Live Market!

[› Derivatives Stock Watch](#)[› Most Active Underlying](#)[› Global Indices - Virtual Market](#)

Indian Volatility Index

- India VIX is computed by NSE based on the order book of NIFTY Options.
- The best bid ask quotes of near and next month NIFTY options contracts which are traded on the F&O segment of NSE are used for computation of India VIX
- India VIX indicates the investor's perception of the market's volatility in the near term i.e. it depicts the expected market volatility over the next 30 calendar days.
- Higher the India VIX values, higher the expected volatility and vice-versa.



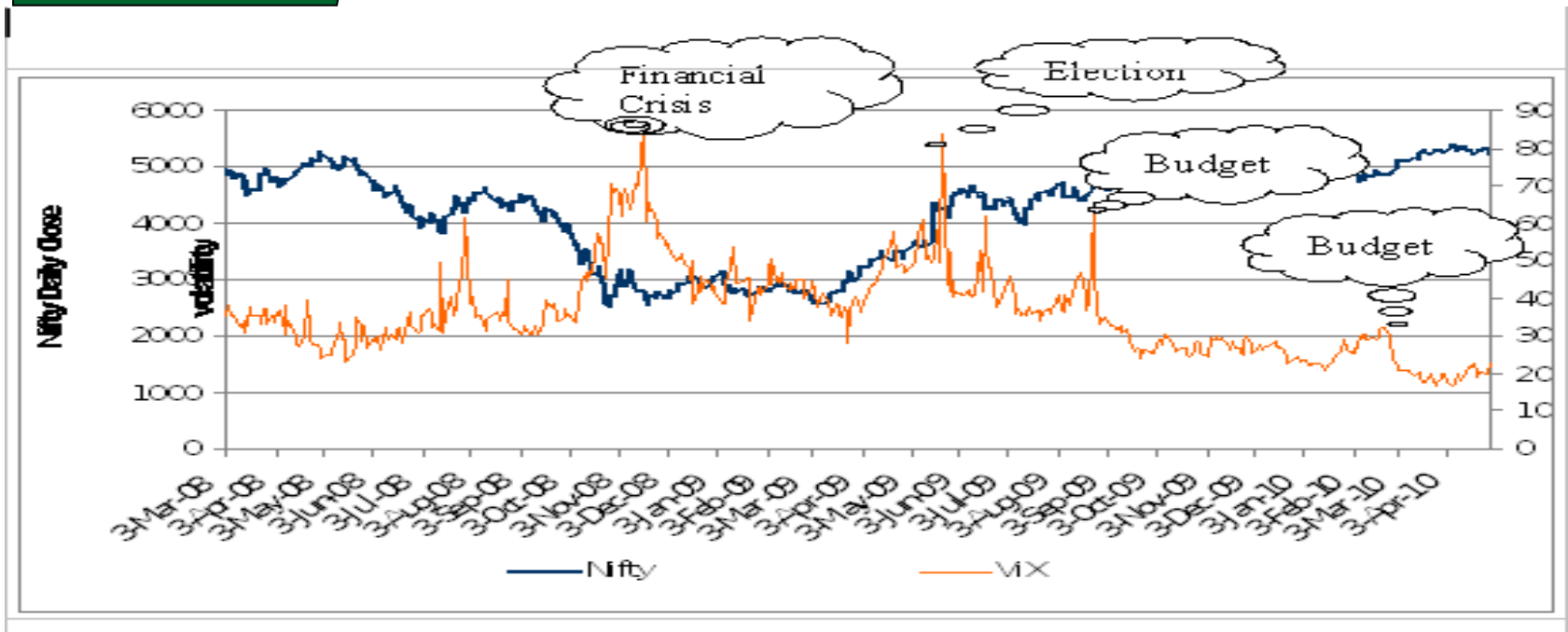
VOLATILITY VS MARKET MOVEMENT

Volatility Vs Market

Volatility has high negative co-relation with market

Normally volatility is high when markets fall

Volatility is low (stable) when markets rise



Options

Types of Options

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graph TD; A[Types of Options] --> B[CALL]; A --> C[PUT]; B --> D[Bullish view]; C --> E[Bearish View]
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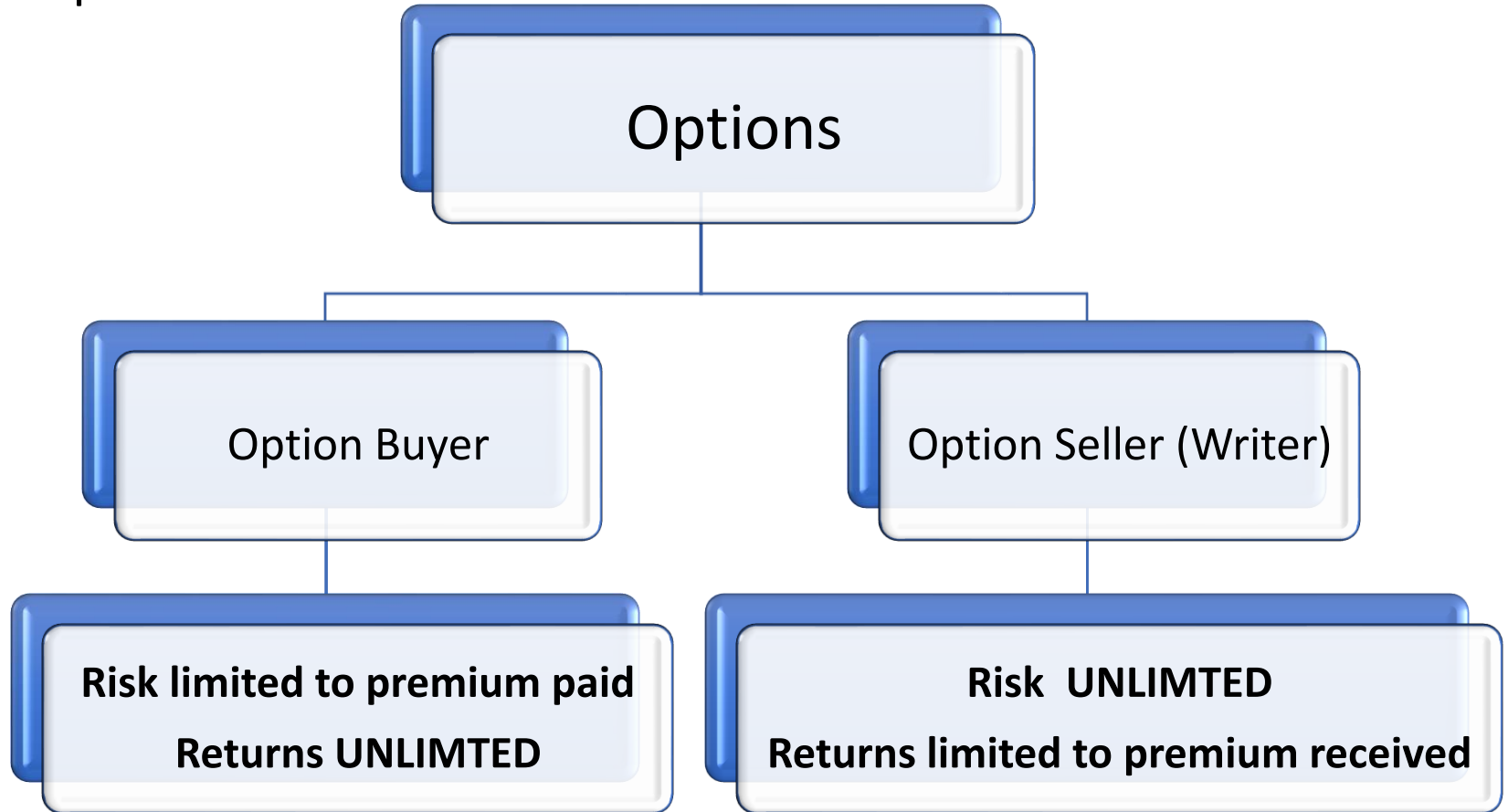
CALL

Bullish view

PUT

Bearish View

Options



So Options...

- ⇒ Gives the buyer the right
- ⇒ Not the obligation
- ⇒ To buy or sell
- ⇒ A specified underlying
- ⇒ At a set price
- ⇒ On or before a specified date

Option Terminology

- Option Premium
 - Price paid by the buyer to acquire the right
- Strike Price or Exercise Price
 - Price at which the underlying may be purchased
- Expiration Date
 - Last date for exercising the option
- Exercise Date
 - Date on which the option is actually exercised

OPTION STRATEGIES

Bullish	Bearish
Buy Call	Buy Put
Sell Put (Short)	Sell Call (Short)

Bullish

Long Call (Right but No obligation to BUY)

Short Put (Receive premium)

Bearish

Long Put (Right but No obligation to SELL)

Short Call (Receive premium)

BULLISH – LONG CALL

Example

Long Call Infosys (Right but No obligation to BUY)

View	Bullish
Stock	Infosys
CMP	2770
Target	2900
Action	Buy Call
Strike Price	2800
Premium	7.5
Lot Size	200
Premium Paid	1500

Pay Off	
On Expiry	
Closing Price	2900
Strike Price	2800
In the Money Option	
Profit Per Share	100
Lot Size	200
Gross Profit	20000
Less Premium Paid	1500
Nett Profit	18500

BULLISH – SHORT PUT

Example

Short PUT of Infosys (Buyer Gets Right but No obligation to Sell Underlying)

For Selling options – Margins have to be paid to exchange

View	Bullish
Stock	Infosys
CMP	2770
Target	2900
Action	Sell PUT
Strike Price	2800
Premium	34
Lot Size	200
Premium Received	6800

Pay Off	
On Expiry	
Closing Price	2900
Strike Price	2800
Out of Money Put Option	
Option NOT Exercised	
Hence Retain Premium	
Gross Profit	6800
Less Premium Paid	0
Nett Profit	6800

BEARISH – LONG PUT

Example

Long PUT of BHEL (Right but No obligation to Sell Underlying)

View	Bearish
Stock	BHEL
CMP	2350
Target	2200
Action	Buy PUT
Strike Price	2340
Premium	16
Lot Size	150
Premium Paid	2400

Pay Off	
On Expiry	
Closing Price	2200
Strike Price	2340
In the Money Option	
Profit Per Share	140
Lot Size	150
Gross Profit	21000
Less Premium Paid	2400
Nett Profit	18600

BEARISH – SHORT CALL

Example

Short Call (Buyer gets 'Right but No obligation' to Buy Underlying)

For Selling options – Margins have to be paid to exchange

View	Bearish
Stock	BHEL
CMP	2350
Target	2200
Action	Sell Call
Strike Price	2350
Premium	22
Lot Size	150
Premium Received	3300

Pay Off	
On Expiry	
Closing Price	2200
Strike Price	2350
Out of Money Put Option	
Option NOT Exercised	
Hence Retain Premium	
Gross Profit	3300
Less Premium Paid	0
Nett Profit	3300

Any option with intrinsic value is known as “in-the-money.” An option without intrinsic value is known as “out-of-the-money”. An option with an exercise price equal to the underlying security price is known as “at-the-money”.

Market Scenario	Call Option	Put Option
Market price > Strike price	in-the-money	out-of-the-money
Market price < Strike price	out-of-the-money	in-the-money
Market price = Strike price	at-the-money	at-the-money

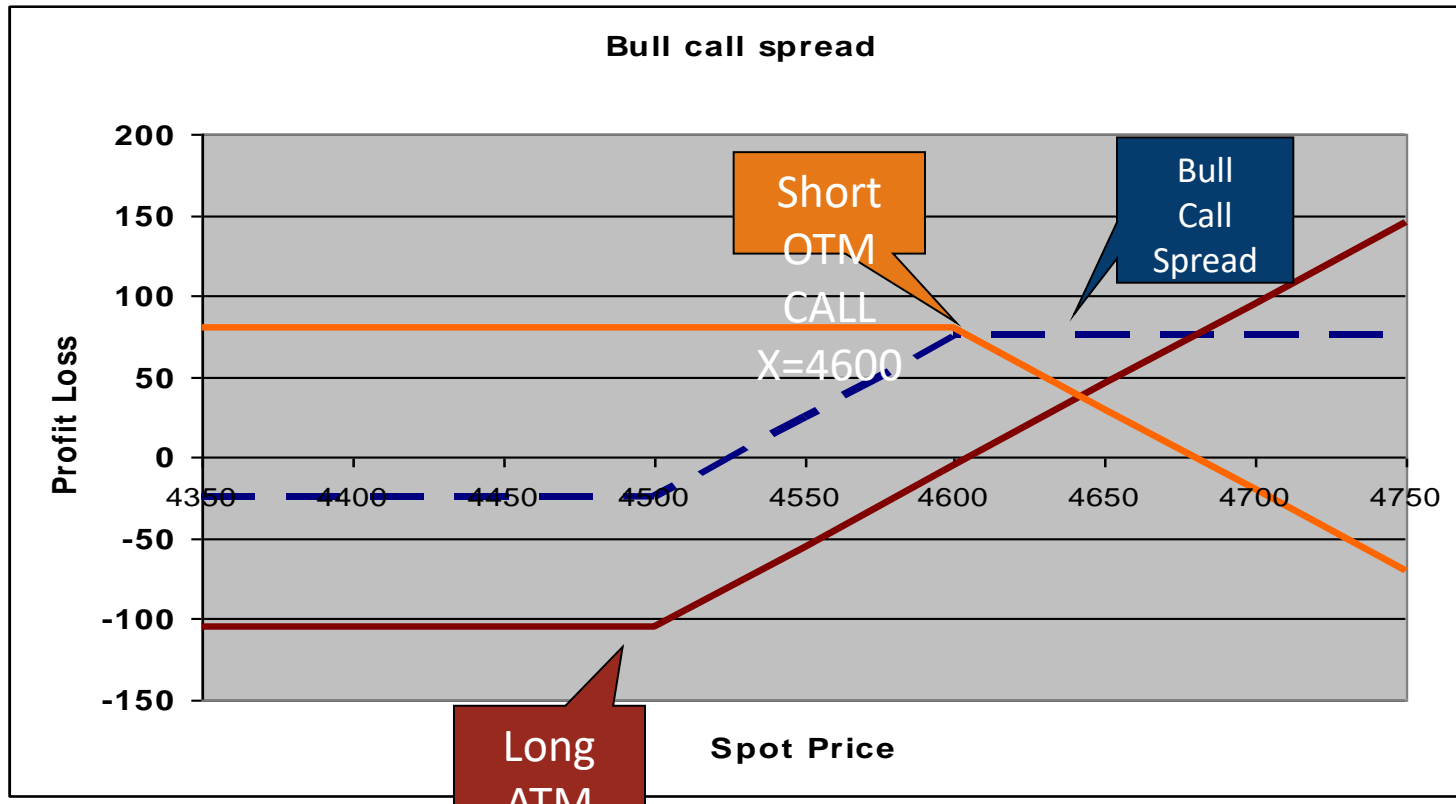
•Identify ITM/ATM/OTM

SL	Strike Price	Option Type	Market Price	ITM/ATM/OTM
1	40	CE	35	
2	150	CE	165	
3	350	PE	345	
4	125	PE	125	
5	2500	CE	2678	
6	170	PE	150	
7	50	CE	50	
8	200	PE	215	

Simple Strategies Using Options

Bull Call Spread	Long 1 Call at E1	Where $E1 < E2$
	Short 1 Call at E2	Same Expiration
Bear Call Spread	Short 1 Call at E1	Where $E1 < E2$
	Long 1 Call at E2	Same Expiration
Bull Put Spread	Short 1 Put at E2	Where $E1 < E2$
	Long 1 Put at E1	Same Expiration
Bear Put Spread	Long 1 Put at E2	Where $E1 < E2$
	Short 1 Put at E1	Same Expiration

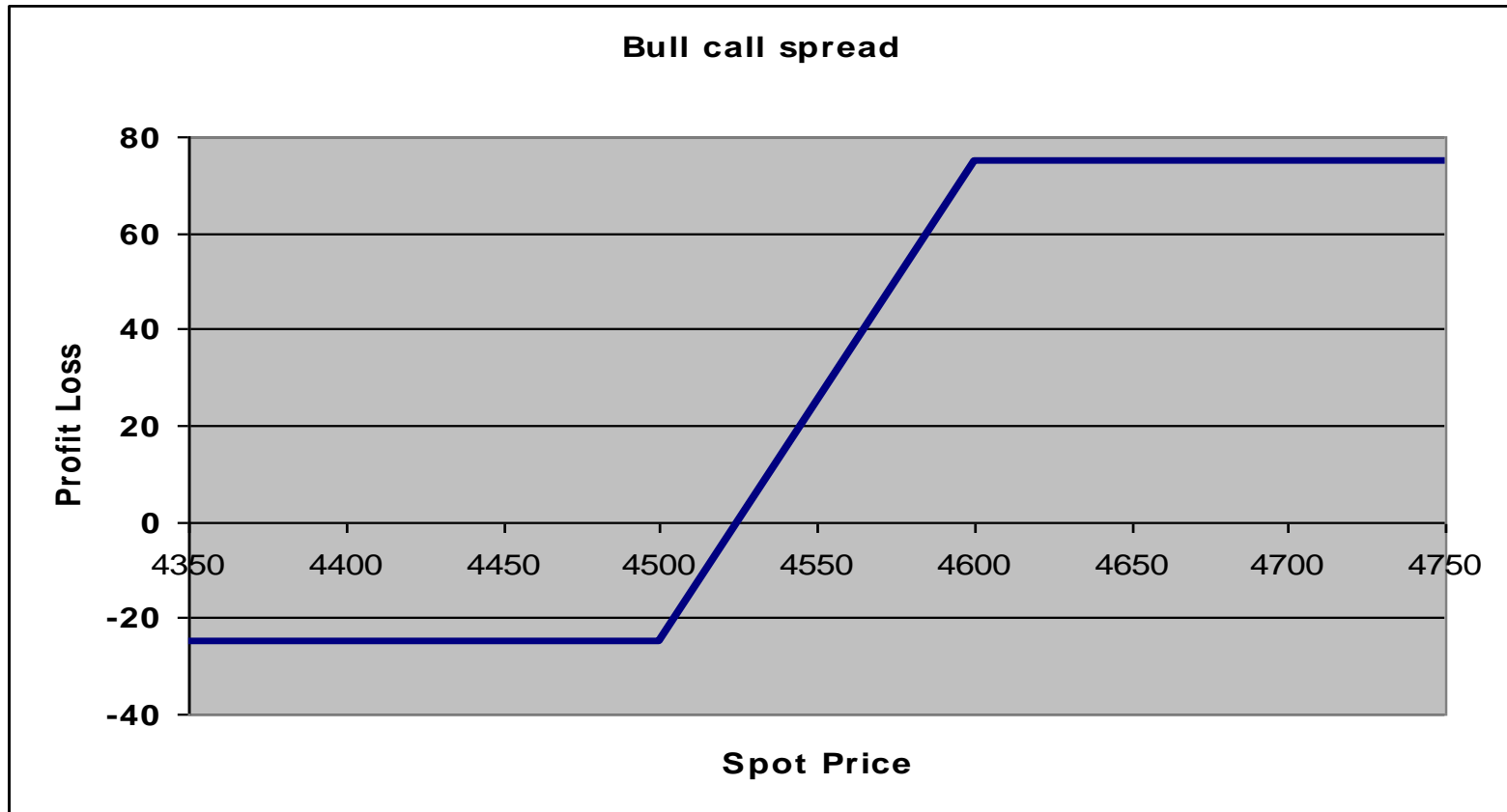
BULL CALL SPREADS – STRATEGY PAY OFF



Scenario Analysis at various Levels

					Spot closing at expiry					
Instrument	Action	Strike	Price	No. of lots	4000	4500	4525	4550	4600	4700
C	B	4500	105	1	-105	-105	-80	-55	-5	95
C	S	4600	80	1	80	80	80	80	80	-20
Profit/Loss per share					-25	-25	0	25	75	75
Total Profit/Loss					-1250	-1250	0	1250	3750	3750

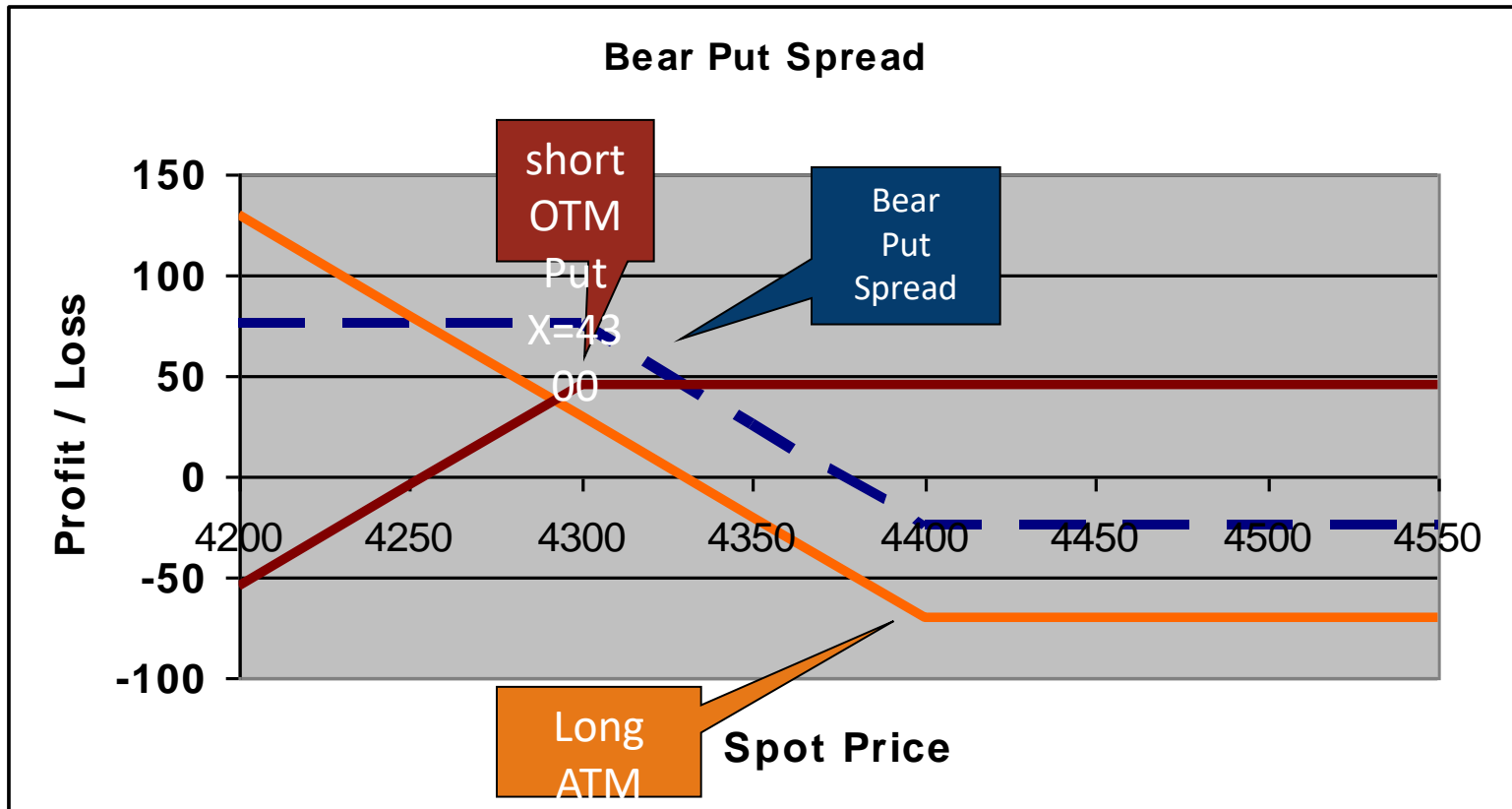
BULL CALL SPREADS – STRATEGY PAY OFF



Scenario Analysis at various Levels

					Spot closing at expiry					
Instrument	Action	Strike	Price	No. of lots	4000	4500	4525	4550	4600	4700
C	B	4500	105	1	-105	-105	-80	-55	-5	95
C	S	4600	80	1	80	80	80	80	80	-20
Profit/Loss per share					-25	-25	0	25	75	75
Total Profit/Loss					-1250	-1250	0	1250	3750	3750

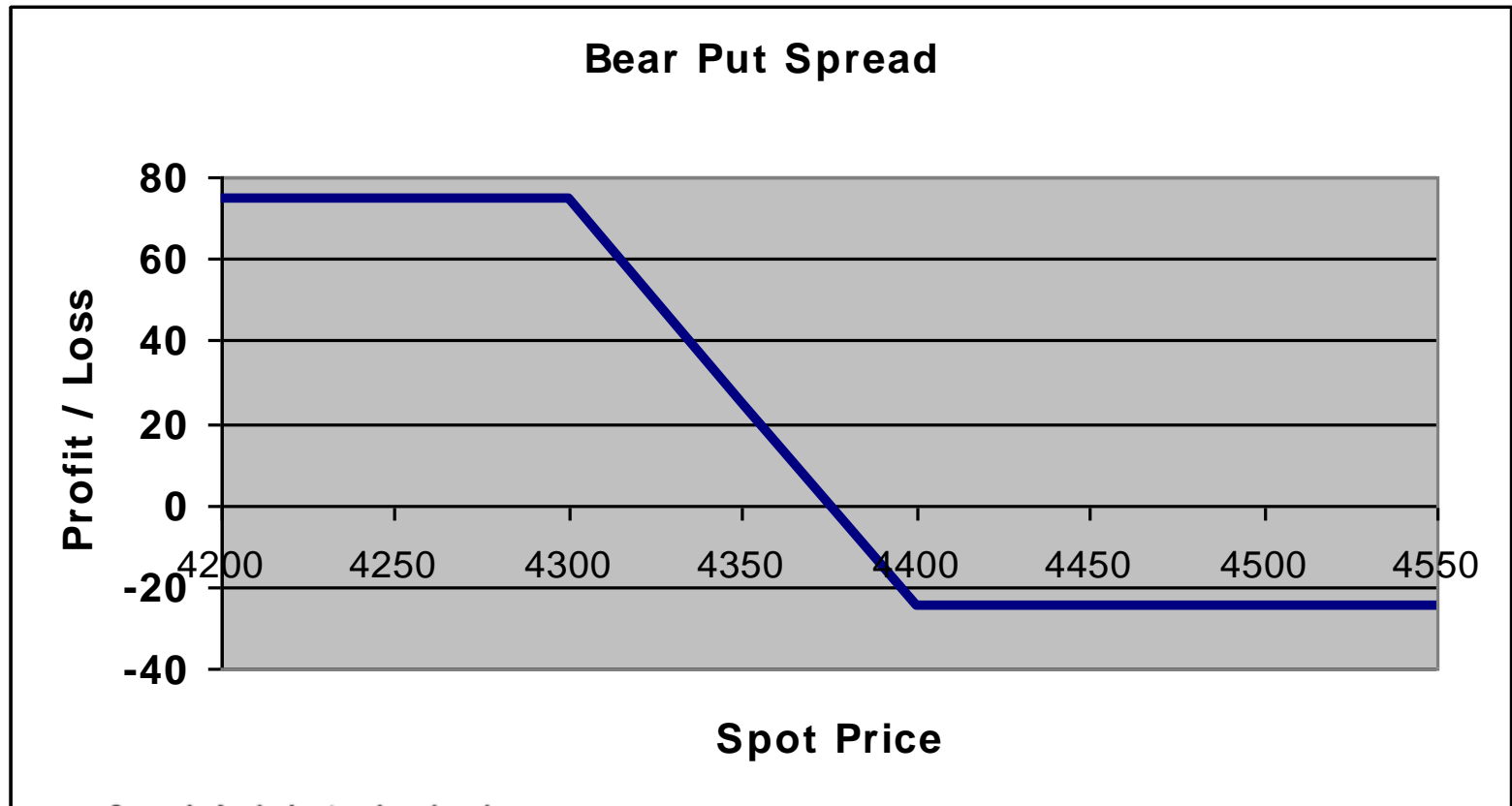
BEAR PUT SPREAD – PAY OFF GRAPH



Scenario Analysis at various Levels

					Spot closing at expiry					
Instrument	Action	Strike	Price	No. of lots	4000	4200	4300	4350	4375	5000
P	B	4400	70	1	330	130	30	-20	-45	-70
P	S	4300	45	1	-255	-55	45	45	45	45
Profit/Loss per share					75	75	75	25	0	-25
Total Profit/Loss					3750	3750	3750	1250	0	-1250

BEAR PUT SPREAD – PAY OFF GRAPH



Scenario Analysis at various Levels

					Spot closing at expiry					
Instrument	Action	Strike	Price	No. of lots	4000	4200	4300	4350	4375	5000
P	B	4400	70	1	330	130	30	-20	-45	-70
P	S	4300	45	1	-255	-55	45	45	45	45
Profit/Loss per share					75	75	75	25	0	-25
Total Profit/Loss					3750	3750	3750	1250	0	-1250

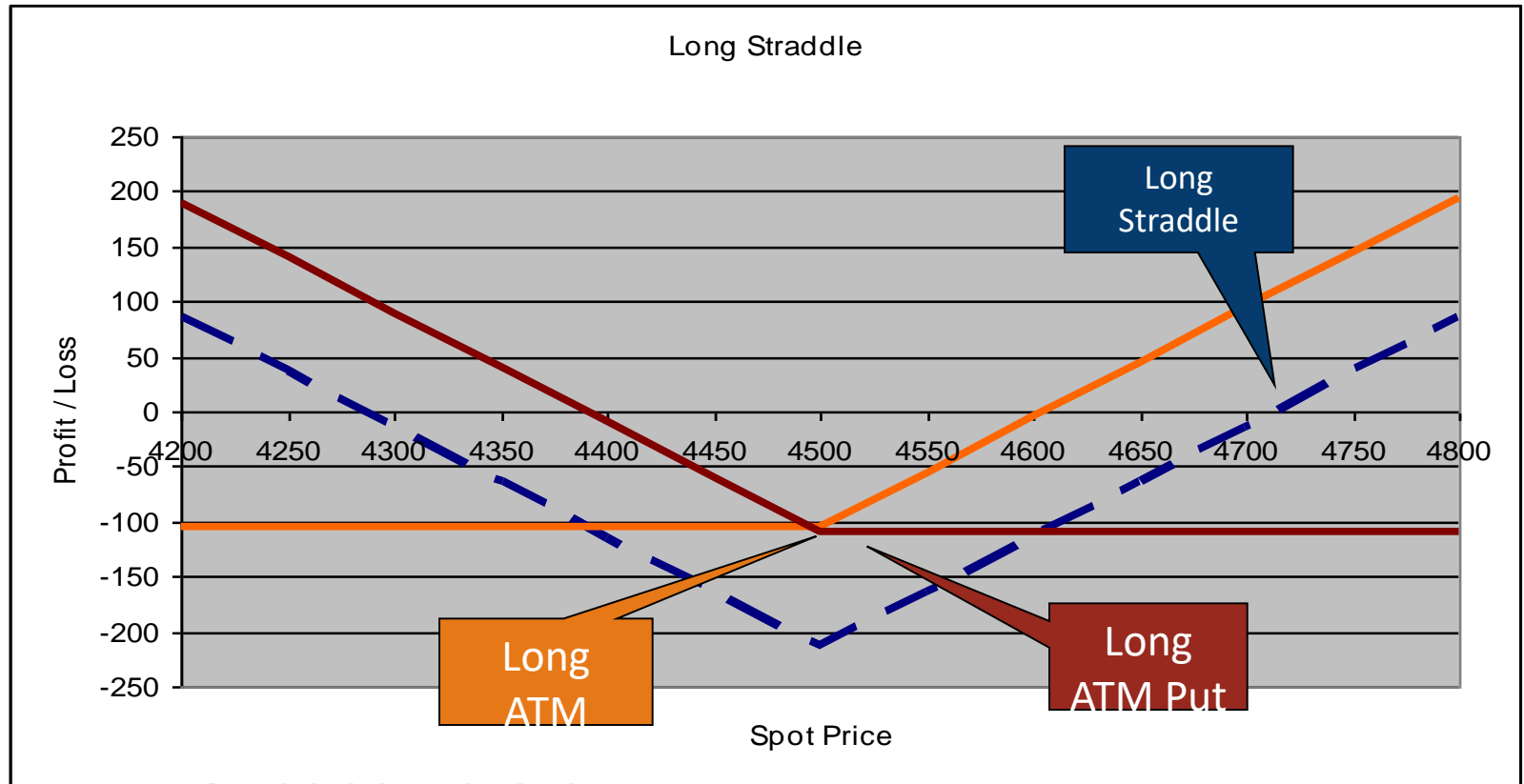
DERIVATIVE STRATEGIES

↓Risk / View →	Range bound	Volatile
Low Risk	Short Strangle	Long Straddle
Moderate Risk	Short Straddle	Long Strangle

Advance Strategies

Long Straddle	Long1 Call at E1 (ATM) Long1 Put at E1 (ATM)	Same Expiration	When You Expect Markets to be Volatile & move In Either Direction
Short Straddle	Short 1 Call at E1 (ATM) Short 1 Put at E1 (ATM)	Same Expiration	When You Expect Markets to be Range Bound
Long Strangle	Long 1 OTM Call (E2) Long 1 OTM PUT(E1)	Where $E1 < E2$	When You Expect Markets to be Volatile & move In Either Direction
Short Strangle	Short 1 OTM Call (E2) Short 1 OTM PUT(E1)	Where $E1 < E2$	When You Expect Markets to be Range Bound & move In Either Direction

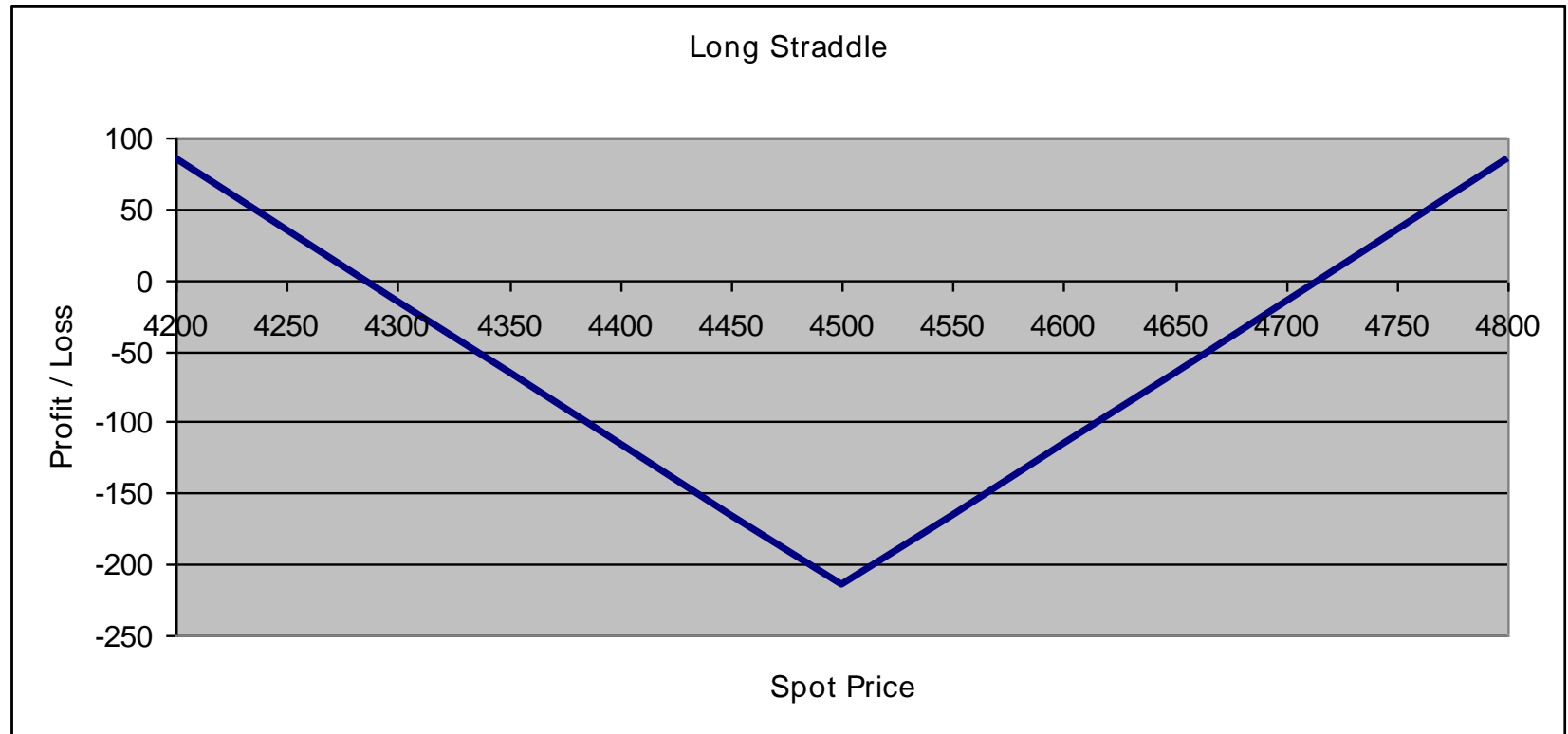
LONG STRADDLE – PAY OFF GRAPH



Scenario Analysis at various Levels

					Spot closing at expiry					
Instrument	Action	Strike	Price	No. of lots	4000	4285	4400	4500	4715	5000
C	B	4500	105	1	-105	-105	-105	-105	110	395
P	B	4500	110	1	390	105	-10	-110	-110	-110
Profit/Loss per share					285	0	-115	-215	0	285
Total Profit/Loss					14250	0	-5750	-10750	0	14250

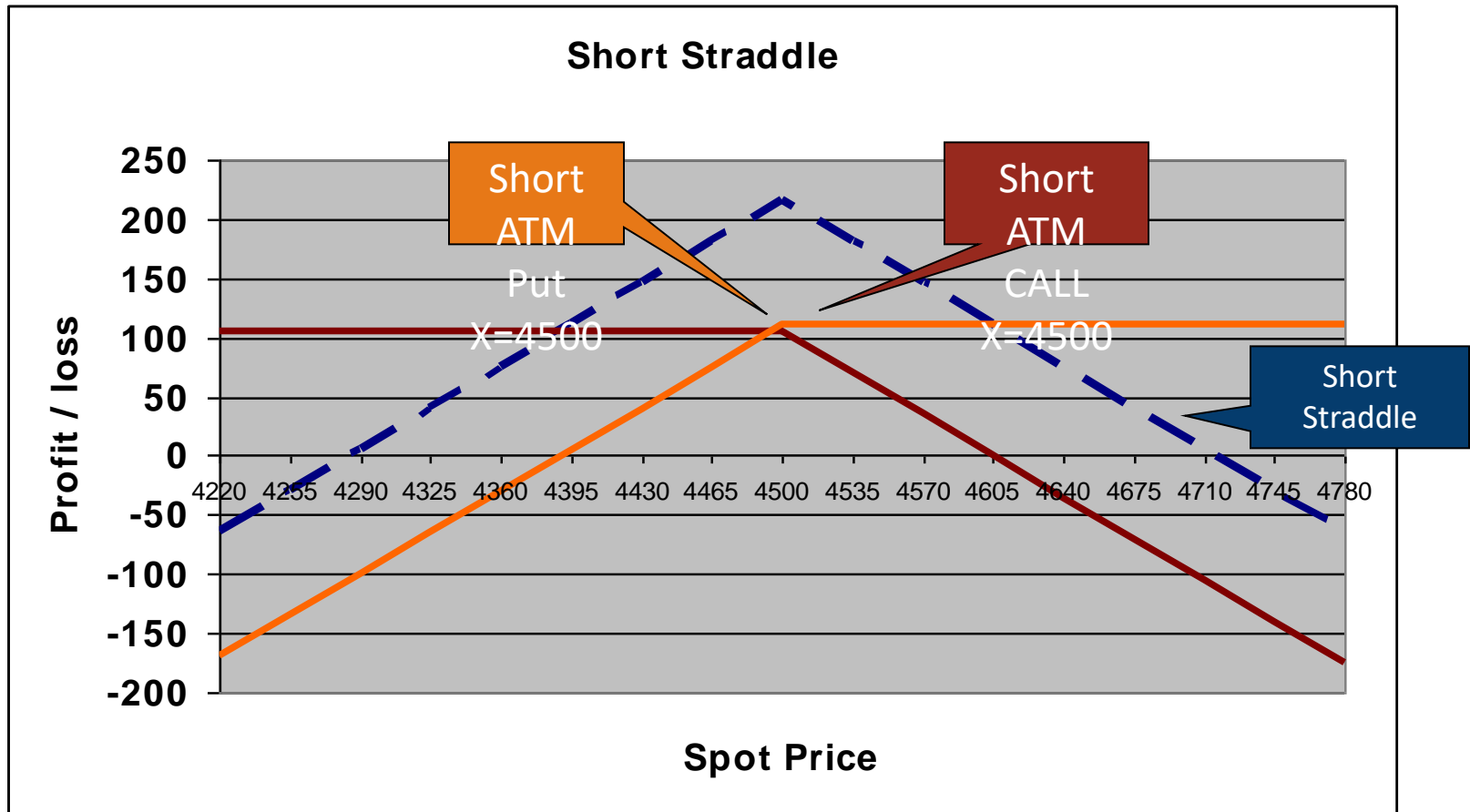
LONG STRADDLE – PAY OFF GRAPH



Scenario Analysis at various Levels

					Spot closing at expiry					
Instrument	Action	Strike	Price	No. of lots	4000	4285	4400	4500	4715	5000
C	B	4500	105	1	-105	-105	-105	-105	110	395
P	B	4500	110	1	390	105	-10	-110	-110	-110
Profit/Loss per share					285	0	-115	-215	0	285
Total Profit/Loss					14250	0	-5750	-10750	0	14250

SHORT STRADDLE – PAY OFF GRAPH



Scenario Analysis at various Levels

					Spot closing at expiry					
Instrument	Action	Strike	Price	No. of lots	4250	4285	4400	4500	4715	4750
C	S	4500	105	1	105	105	105	105	-110	-145
P	S	4500	110	1	-140	-105	10	110	110	110
Profit/Loss per share					-35	0	115	215	0	-35
Total Profit/Loss					-1750	0	5750	10750	0	-1750

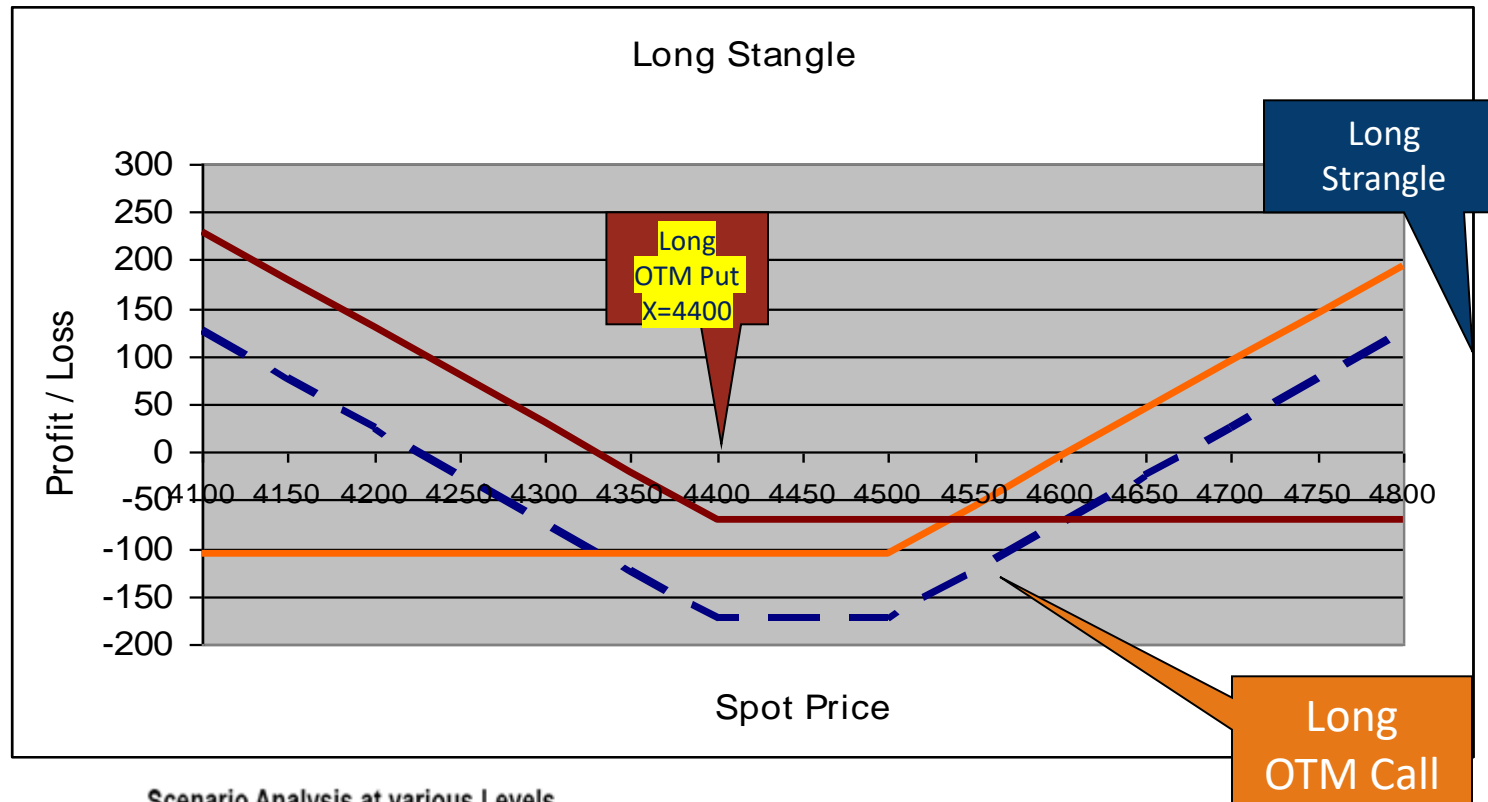
SHORT STRADDLE – PAY OFF GRAPH



Scenario Analysis at various Levels

					Spot closing at expiry					
Instrument	Action	Strike	Price	No. of lots	4250	4285	4400	4500	4715	4750
C	S	4500	105	1	105	105	105	105	-110	-145
P	S	4500	110	1	-140	-105	10	110	110	110
Profit/Loss per share					-35	0	115	215	0	-35
Total Profit/Loss					-1750	0	5750	10750	0	-1750

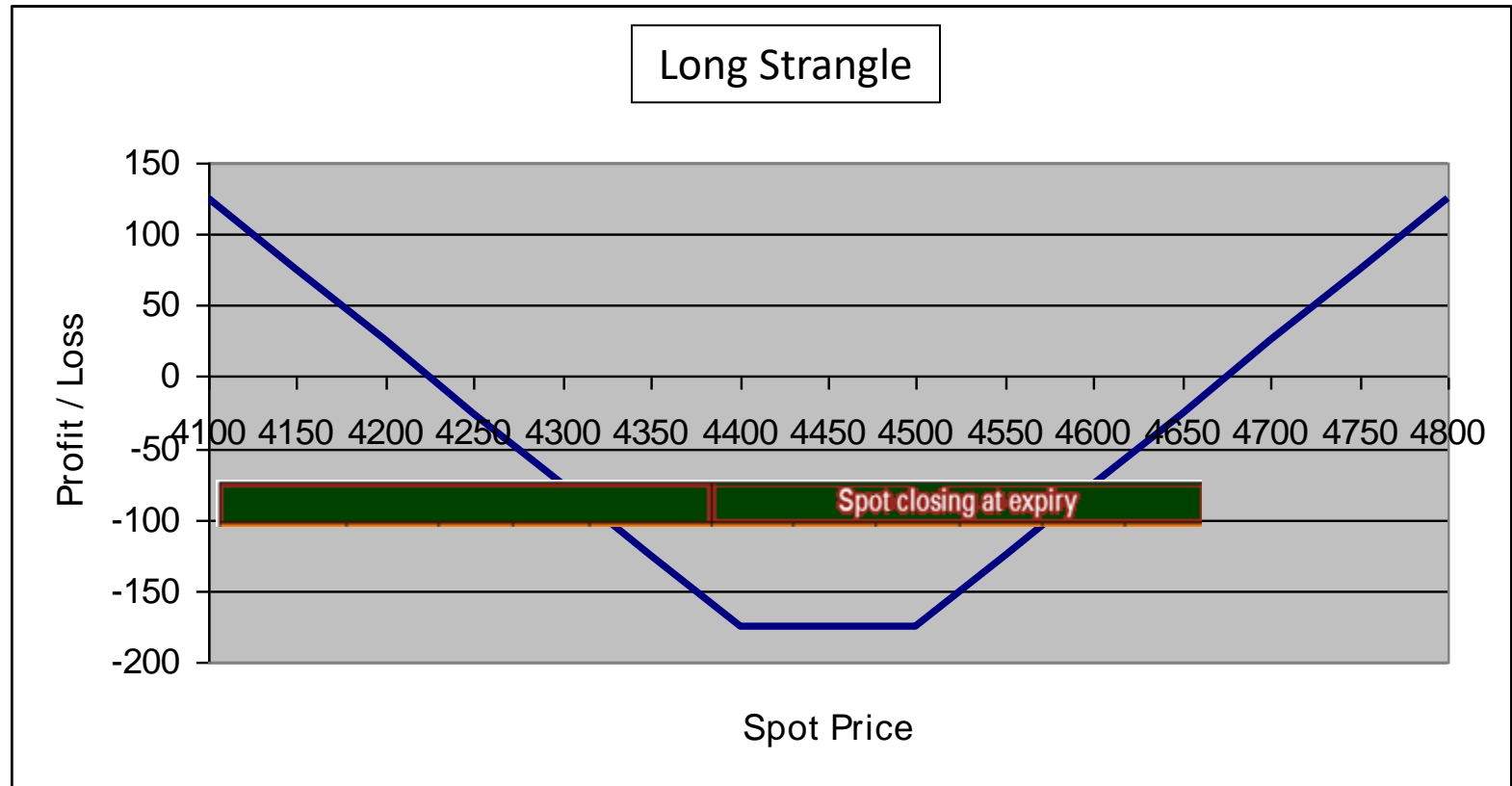
LONG STRANGLE – PAY OFF GRAPH



Scenario Analysis at various Levels

					Spot closing at expiry					
Instrument	Action	Strike	Price	No. of lots	4000	4225	4400	4500	4675	4900
C	B	4500	105	1	-105	-105	-105	-105	70	295
P	B	4400	70	1	330	105	-70	-70	-70	-70
Profit/Loss per share					225	0	-175	-175	0	225
Total Profit/Loss					11250	0	-8750	-8750	0	11250

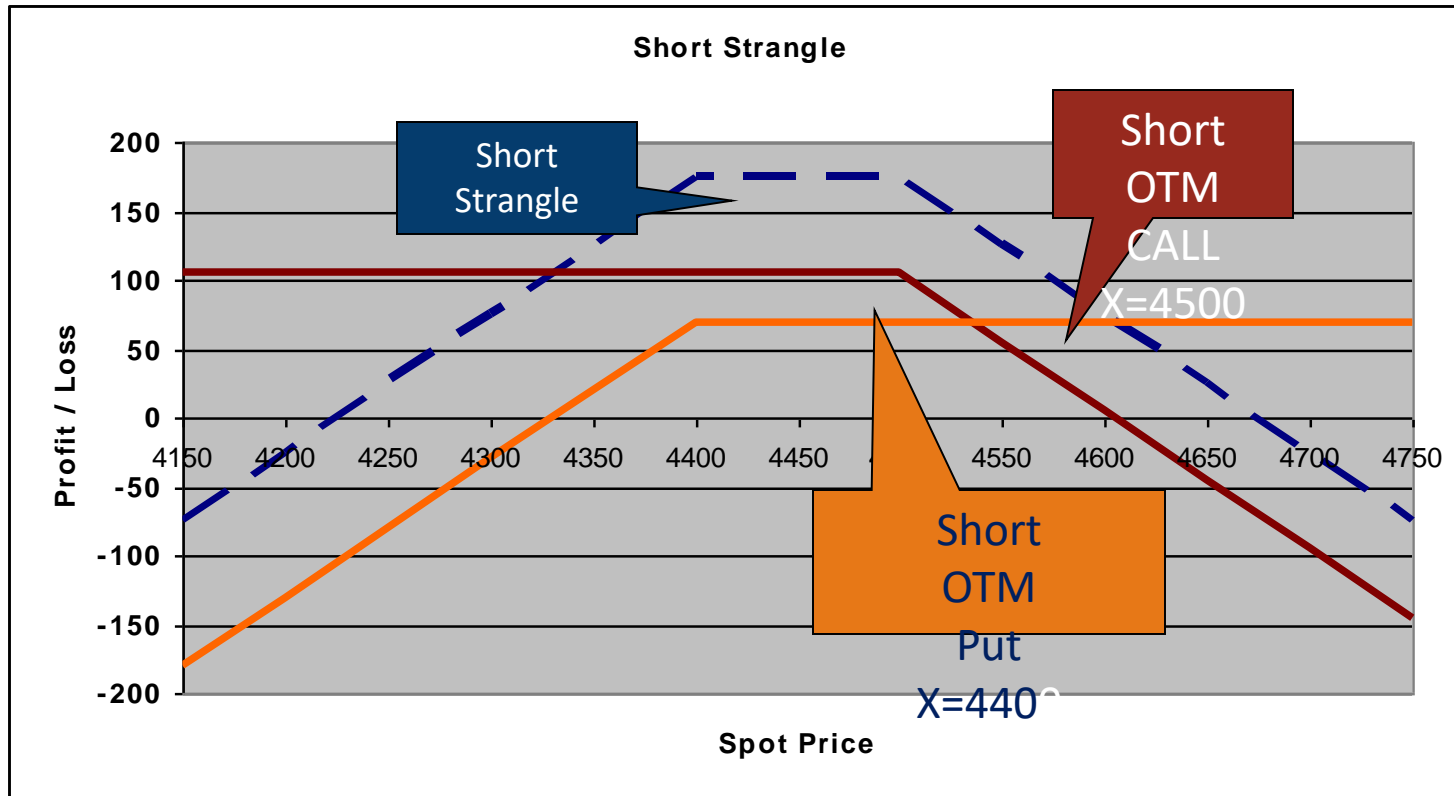
LONG STRANGLE – PAY OFF GRAPH



Scenario Analysis at various Levels

					Spot closing at expiry					
Instrument	Action	Strike	Price	No. of lots	4000	4225	4400	4500	4675	4900
C	B	4500	105	1	-105	-105	-105	-105	70	295
P	B	4400	70	1	330	105	-70	-70	-70	-70
Profit/Loss per share					225	0	-175	-175	0	225
Total Profit/Loss					11250	0	-8750	-8750	0	11250

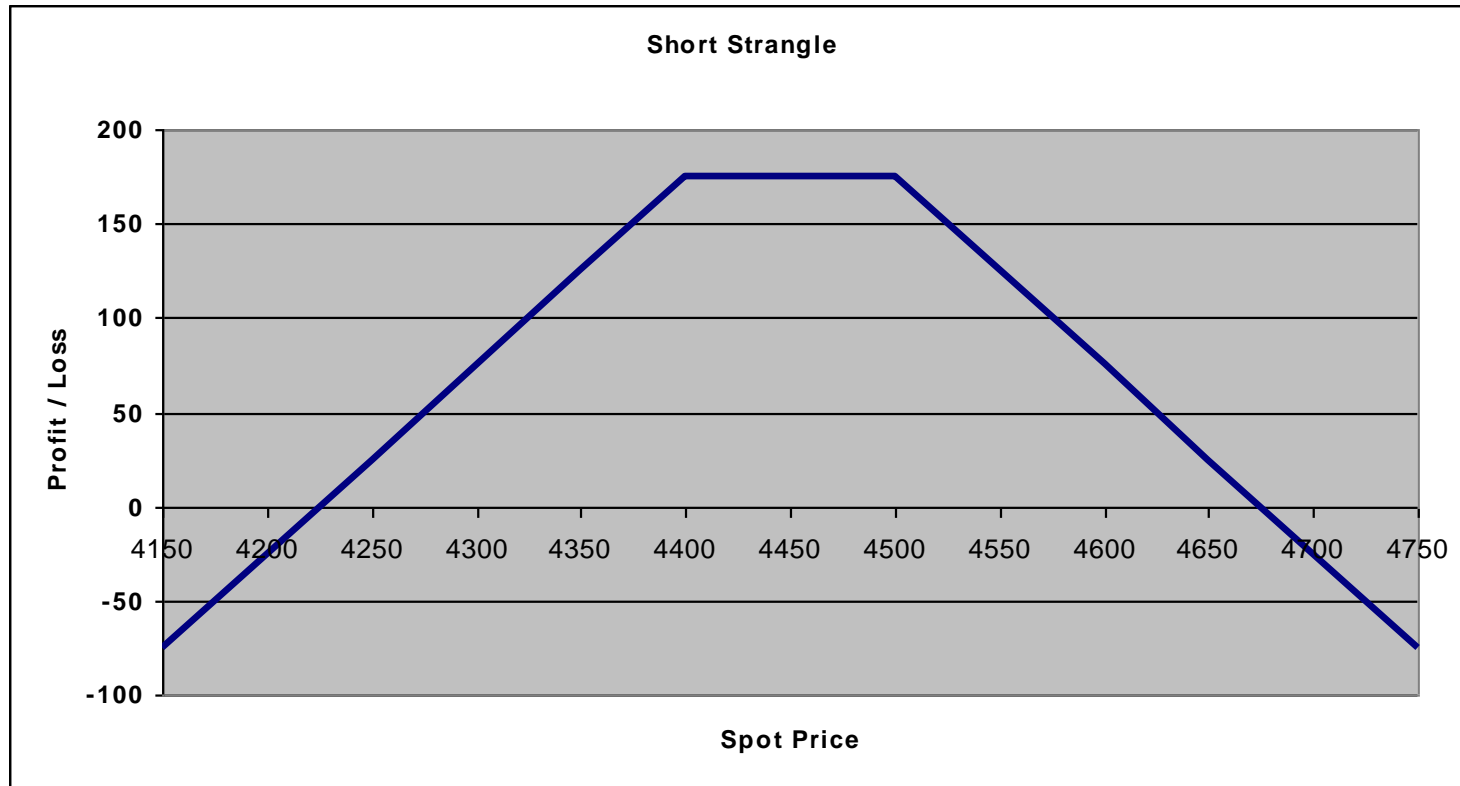
SHORT STRANGLE – STRATEGY PAY OFF



Scenario Analysis at various Levels

					Spot closing at expiry					
Instrument	Action	Strike	Price	No. of lots	4200	4225	4400	4500	4675	4700
C	S	4500	105	1	105	105	105	105	-70	-95
P	S	4400	70	1	-130	-105	70	70	70	70
Profit/Loss per share					-25	0	175	175	0	-25
Total Profit/Loss					-1250	0	8750	8750	0	-1250

Short Strangle – Strategy Pay off



Scenario Analysis at various Levels

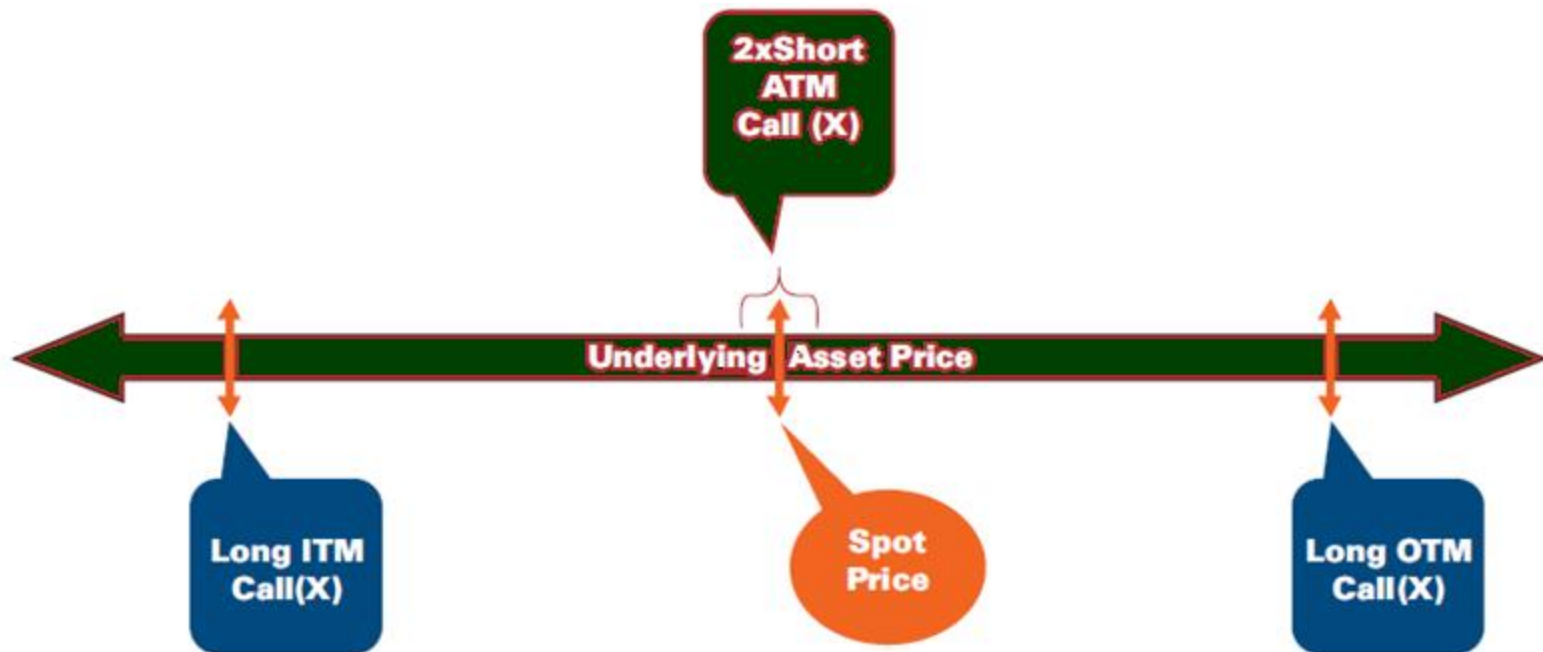
					Spot closing at expiry					
Instrument	Action	Strike	Price	No. of lots	4200	4225	4400	4500	4675	4700
C	S	4500	105	1	105	105	105	105	-70	-95
P	S	4400	70	1	-130	-105	70	70	70	70
Profit/Loss per share					-25	0	175	175	0	-25
Total Profit/Loss					-1250	0	8750	8750	0	-1250

Four positions strategies

Butterfly Straddle	1) Buy 1 ITM Call (E1) 2) Sell 2 ATM Calls(E2) 3) Buy 1 OTM Call(E3)	Those investors who perceive that there would be low volatility in the market whereas want to minimize their losses even if the market breaks out of a specified range.
Long call condor	1.) Long ITM Call (E1) 2.) Long OTM Call(E4) 3.) Short ITM Call(E2) 4.) Short OTM Call(E3)	Those investors who perceive that there would be moderate volatility in the market whereas want to minimize their losses even if the market breaks out of a specified range.

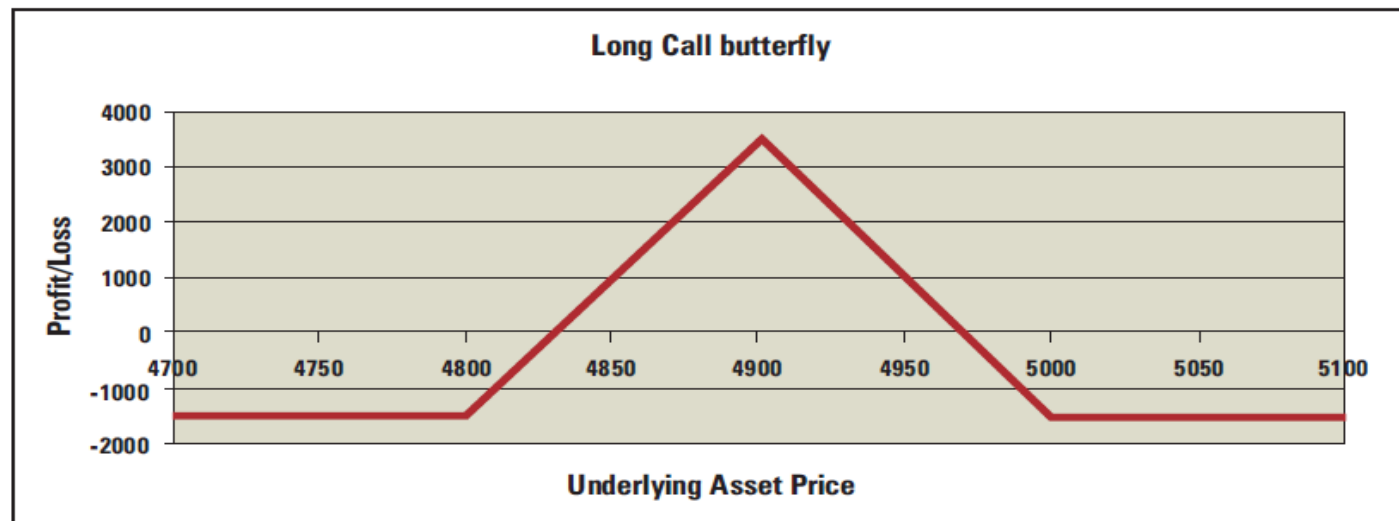
LONG CALL BUTTERFLY

- 1.) Long ITM Call
- 2.) Long OTM Call
- 3.) 2 x Short ATM Call (At the same strike price)



LONG CALL BUTTERFLY

Nifty is trading at 5000, We buy an ITM Call at strike price of 4900 trading at Rs. 120, we buy an OTM call at strike price 5050 trading at Rs. 30 and short two ATM call with a strike price of 5000 trading at Rs. 60.



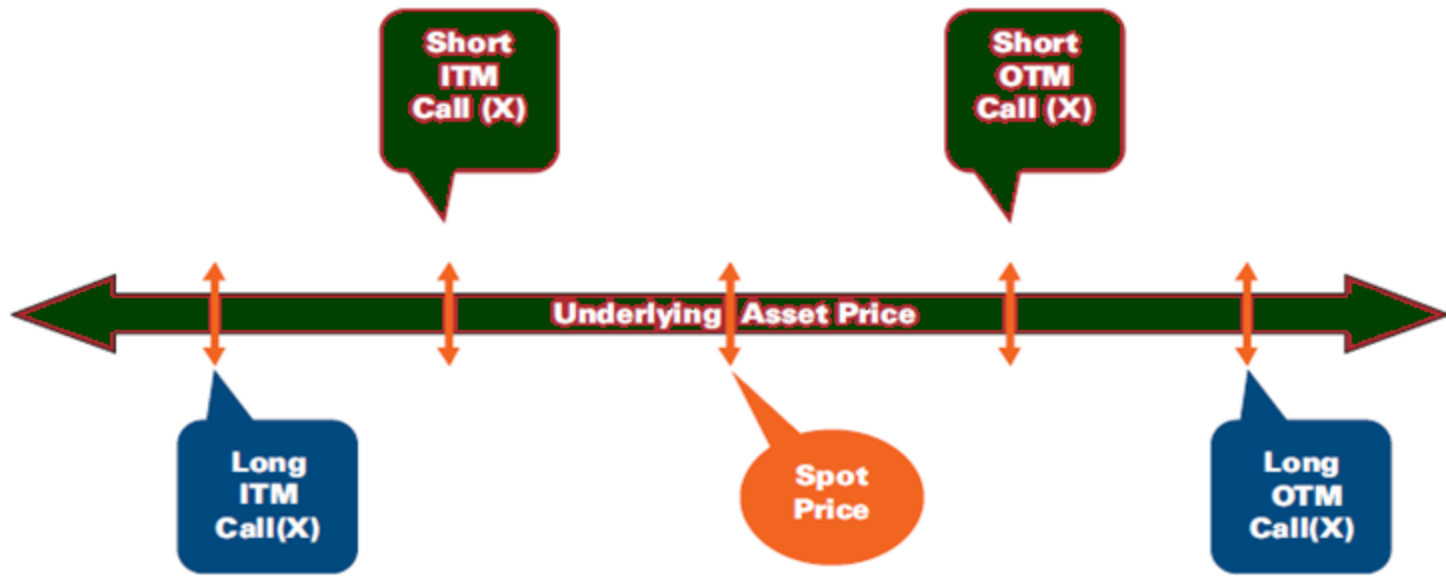
Long Call ButterflySpot price at the time of Expiration											
Nature	Action	Nature	Strike price	Price	No.of lots	4850	4900	4950	5000	5050	5100
Call	B	ITM	4900	120	1	-120	-120	-70	-20	30	80
Call	B	OTM	5050	30	1	-30	-30	-30	-30	-30	-30
Call	S	ATM	5000	60	1	60	60	60	60	10	-40
Call	S	ATM	5000	60	1	60	60	60	60	10	-40
Profit / Loss per Unit						-30	-30	20	70	20	-30
Total Profit/Loss						-1500	-1500	1000	3500	1000	-1500

LONG CALL CONDOR

- Those investors who perceive that there would be moderate volatility in the market whereas want to minimize their losses even if the market breaks out of a specified range.
- The strategy by view is similar to Long strangle but the maximum losses are hedged to a specified limit.
- The four positions taken to create a Short Call Condor strategy are
 - 1.) Long ITM Call
 - 2.) Long OTM Call
 - 3.) Short ITM Call
 - 4.) Short OTM Call

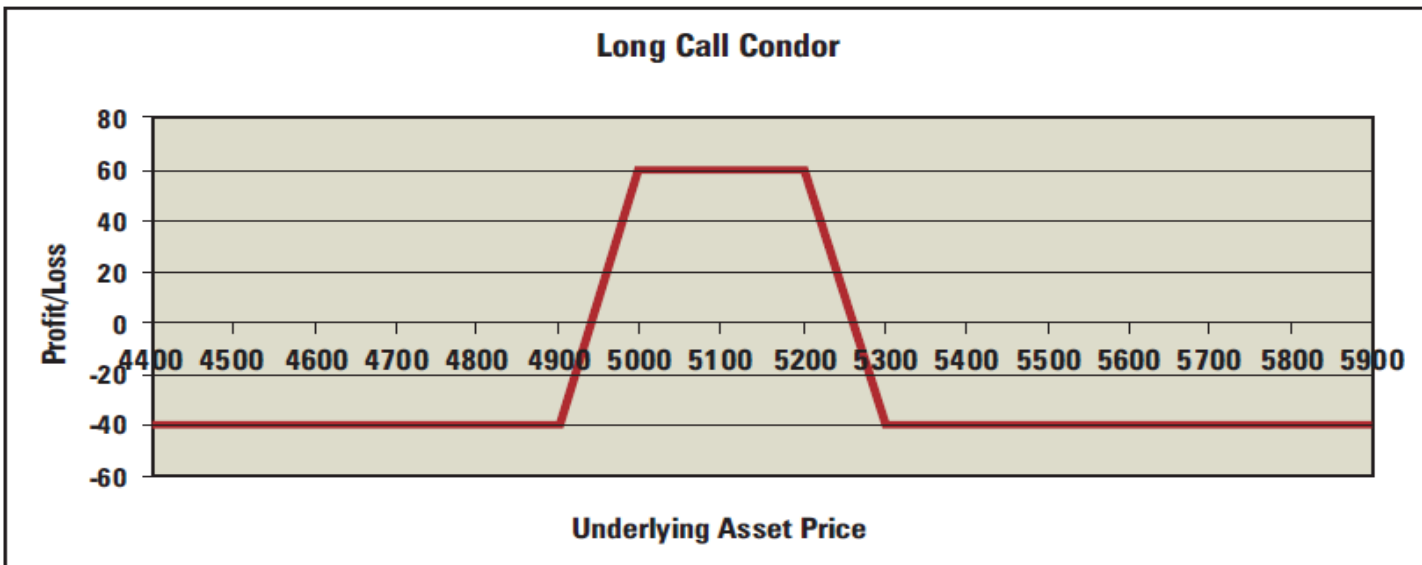
LONG CALL CONDOR

- 1.) Long ITM Call
- 2.) Long OTM Call
- 3.) Short ITM Call
- 4.) Short OTM Call



LONG CALL CONDOR

- Nifty is trading at 5100, We buy an ITM Call at strike price of 4900 trading at Rs.275, we buy an OTM call at strike price 5300 trading at Rs.20, short an OTM call with a strike price of 5200 trading at Rs.105 and short an ITM call at the strike price of 5000 trading at Rs.150



Long Call Condor						Spot price at the time of Expiration					
Nature	Action	Nature	Strike price	Price	No. of lots	4900	5000	5100	5200	5300	5400
Call	B	ITM	4900	275	1	-275	-175	-75	25	125	225
Call	B	OTM	5300	20	1	-20	-20	-20	-20	-20	80
Call	S	ITM	5000	150	1	150	150	50	50	150	250
Call	S	OTM	5200	105	1	105	105	105	105	5	-95
Profit / Loss per Unit						-40	60	60	60	-40	-40
Total Profit/Loss						2000	3000	3000	3000	-2000	-2000

Put Call Ratio

- Put call ratio is an important indicator that can help one in gauging the future direction of the market.
- If the Put call ratio rises then there is hope of higher prices in the near future.
- If the Put call ratio falls it is a sign of weakness in the market.
- Generally put call ratio is read along with volatility.
- PCR can be calculated for Open Interest/positions or no of puts and calls traded.

PUT CALL RATIO

Put Call Ratio

A Indicator to measure the sentiment of market

Total PUT open interest / Total CALL open interest

PCR – RANGE AND INTERPRETATIONS

PCR Range

For general markets: PCR-OI of all strikes at 0.80 to 1.0 indicates oversold market

For general markets: PCR-OI of all strikes at 1.8 to 2.0 indicates overbought market

For a specific underlying: PCR-OI of any strike below 0.60 indicates strong resistance

For a specific underlying: PCR-OI of any strike above 1.80 indicates strong support

- A PCR ratio below 1 suggests that traders are buying more Call options than Put options. It signals that most market participants are betting on a likely bullish trend going forward. For contrarians, it is a signal to go against the wind.
- The market sentiment is deemed excessively bearish when the PCR is at a relatively high level. But for contrarian investors, it suggests that the market may soon bottom out. On the other hand, when the ratio falls to a relatively low level, it is deemed excessively bullish. For contrarians, it would suggest a market top is in the making.

Put Call Ratio-Index Options

28-Dec-2017		25-Jan-2018	22-Feb-2018
OI wise		Volume wise	
Symbol	Put		Call Ratio
BANKNIFTY	5,599,600.00		4,089,280.00 1.37
NIFTY	56,511,725.00		55,663,825.00 1.02

Put Call Ratio-Stock Options

28-Dec-2017		25-Jan-2018	22-Feb-2018
OI wise		Volume wise	
Symbol	Put		Call Ratio
GODREJCP	118,400.00		56,000.00 2.11
MARICO	377,000.00		241,800.00 1.56
JSWENERGY	5,661,000.00		4,207,500.00 1.35
SUNTV	1,628,000.00		1,218,000.00 1.34
MARUTI	739,725.00		562,500.00 1.32
IRB	3,547,500.00		2,872,500.00 1.23
BERGEPAINT	103,400.00		92,400.00 1.12
DLF	17,850,000.00		16,240,000.00 1.10
BIOCON	3,551,400.00		3,328,200.00 1.07
WIPAC	2,700,000.00		2,700,000.00 1.00