The Basics of Options

Terminology & Mechanics

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Disclosures

In order to simplify the computations, commissions have not been included in the examples used in these materials. Commission costs will impact the outcome of all stock and options transactions and must be considered prior to entering into any transactions. Multiple leg strategies involve multiple commission charges.

Any strategies discussed, including examples using actual securities and price data, are strictly for illustrative and educational purposes only and are not to be construed as an endorsement, recommendation, or solicitation to buy or sell securities.

Options involve risks and are not suitable for all investors. Prior to buying or selling an option, an investor must receive a copy of Characteristics and Risks of Standardized Options. Copies are available from your broker, by calling 1-888-OPTIONS, or from The Options Clearing Corporation, One North Wacker Drive, Suite 500, Chicago, Illinois 60606. Investors considering options should consult their tax advisor as to how taxes may affect the outcome of contemplated options transactions.

Session Outline

Essential Terminology

Profit / Loss Diagrams

Mechanics at Expiration

What are Options?

Options are _____

- Option buyers get _____
- Option sellers get _____

What are Options?

Buyers of calls get _____

Sellers of calls get _____

Buyers of puts get _____

Sellers of puts get _____

An option trading instruction:

Buy to open 1 XYZ Dec 55 Call @ 6.70

Buy

open

1

XYZ

Dec

55

Call

6.70

Profit & Loss Diagrams

Show: profit potential
risk
break-even point at expiration

Excellent for understanding a strategy

Can be basic – one option

Can be complex – with stock or many options

Long Option Strategies

An option buyer gets a right (but not an obligation) in return for paying the premium (price) to the option seller.

Option buyers have “long option” positions.

A “long call” is a right to buy the underlying stock at the strike price until expiration.

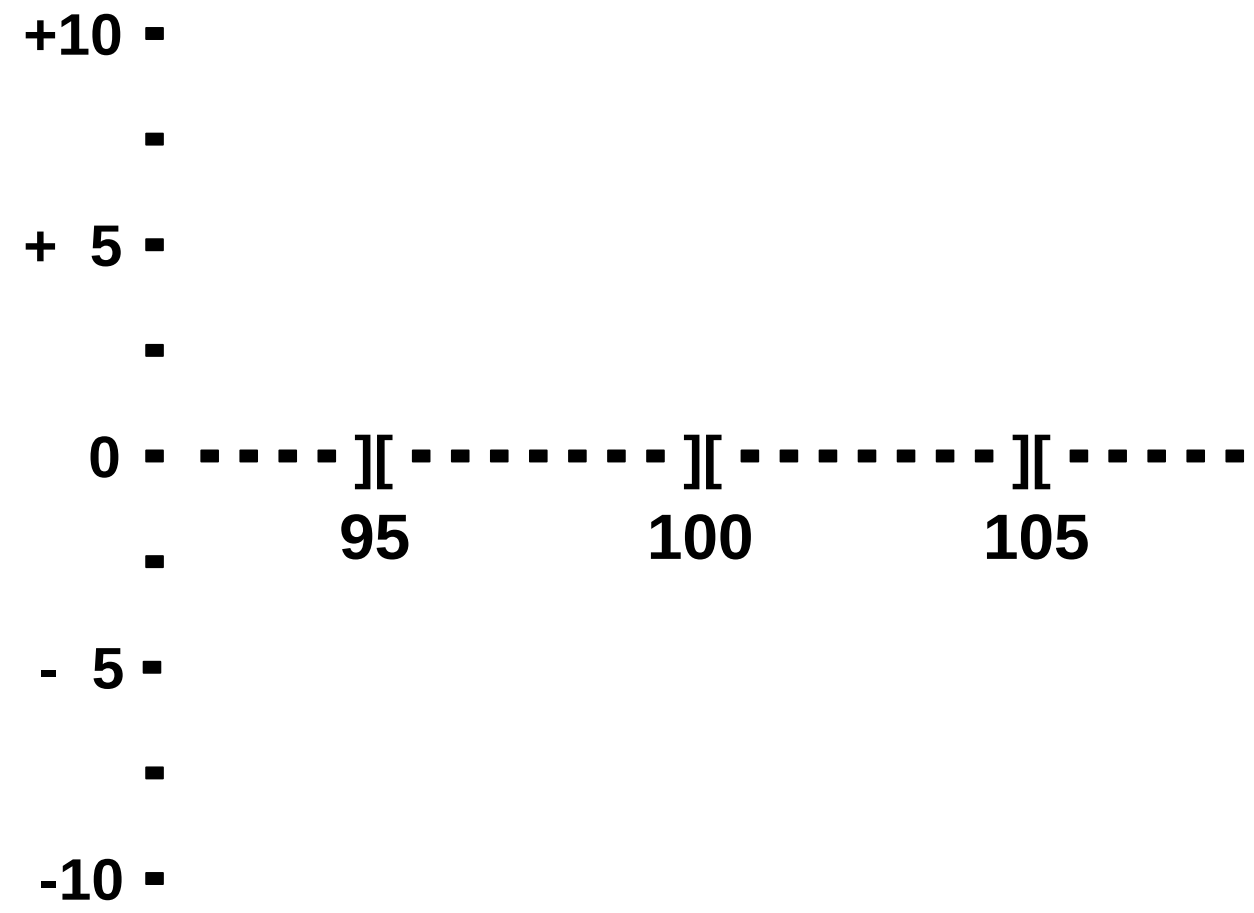
A “long put” is a right to sell the underlying stock at the strike price until expiration.

Buy 1 100 Call @ 4.00

Stock Price	Value at Exp.	Cost	P /(L)
110			
105			
100			
95			
90			

Buy 1 100 Call @ 4.00

P /(L)
+6
+1
(4)
(4)
(4)



Buy 1 100 Call @ 4.00

1. Bullish, bearish or neutral?

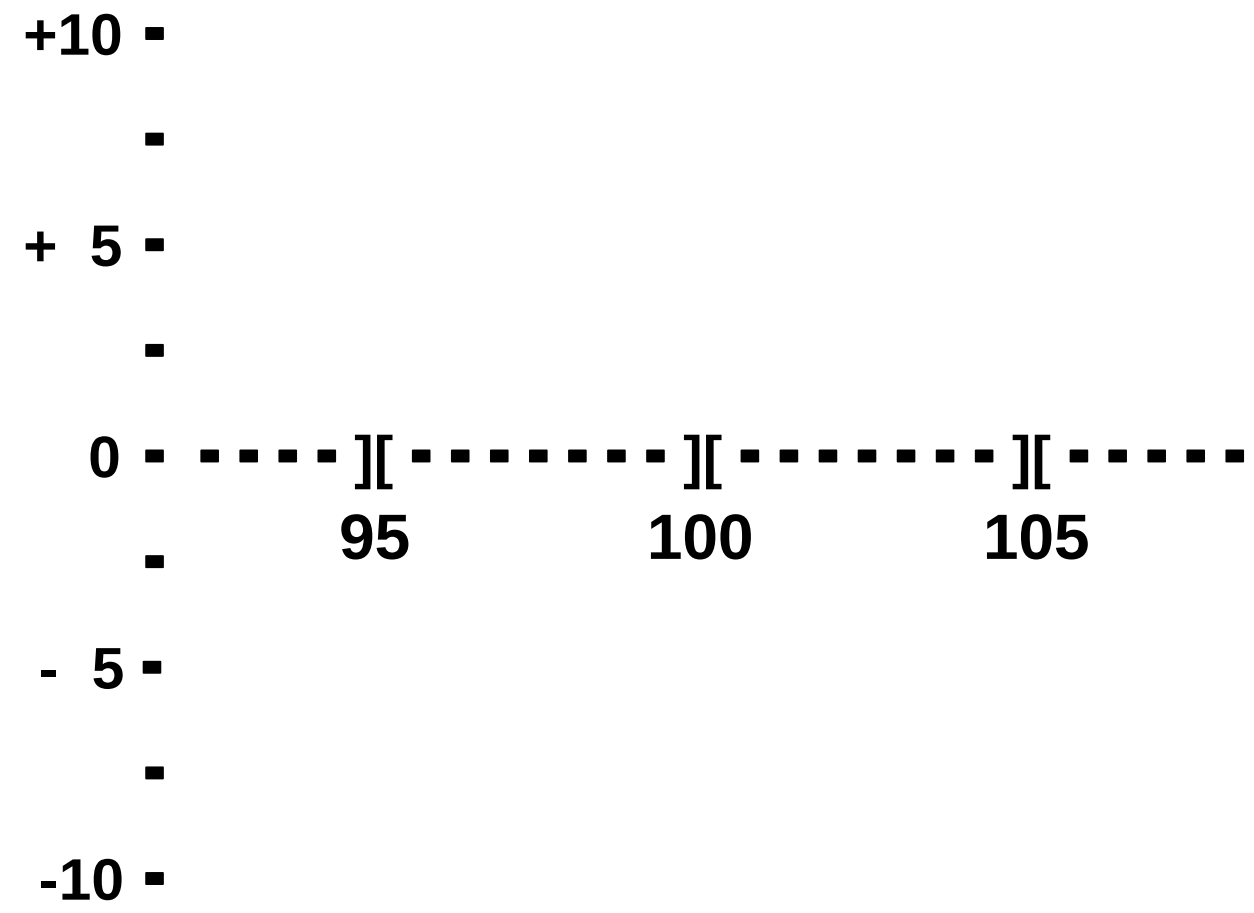
2. Max profit? Max risk?

Buy 1 100 Put @ 3.00

Stock Price	Value at Exp.	Cost	P /(L)
110			
105			
100			
95			
90			

Buy 1 100 Put @ 3.00

P /(L)
(3)
(3)
(3)
+2
+7



Buy 1 100 Put @ 3.00

4. Bullish, bearish or neutral?

5. Max profit? Max risk?

Multiple-Option Strategies

Single-option strategies can be added together to create unique risk profiles that are not possible with stocks alone.

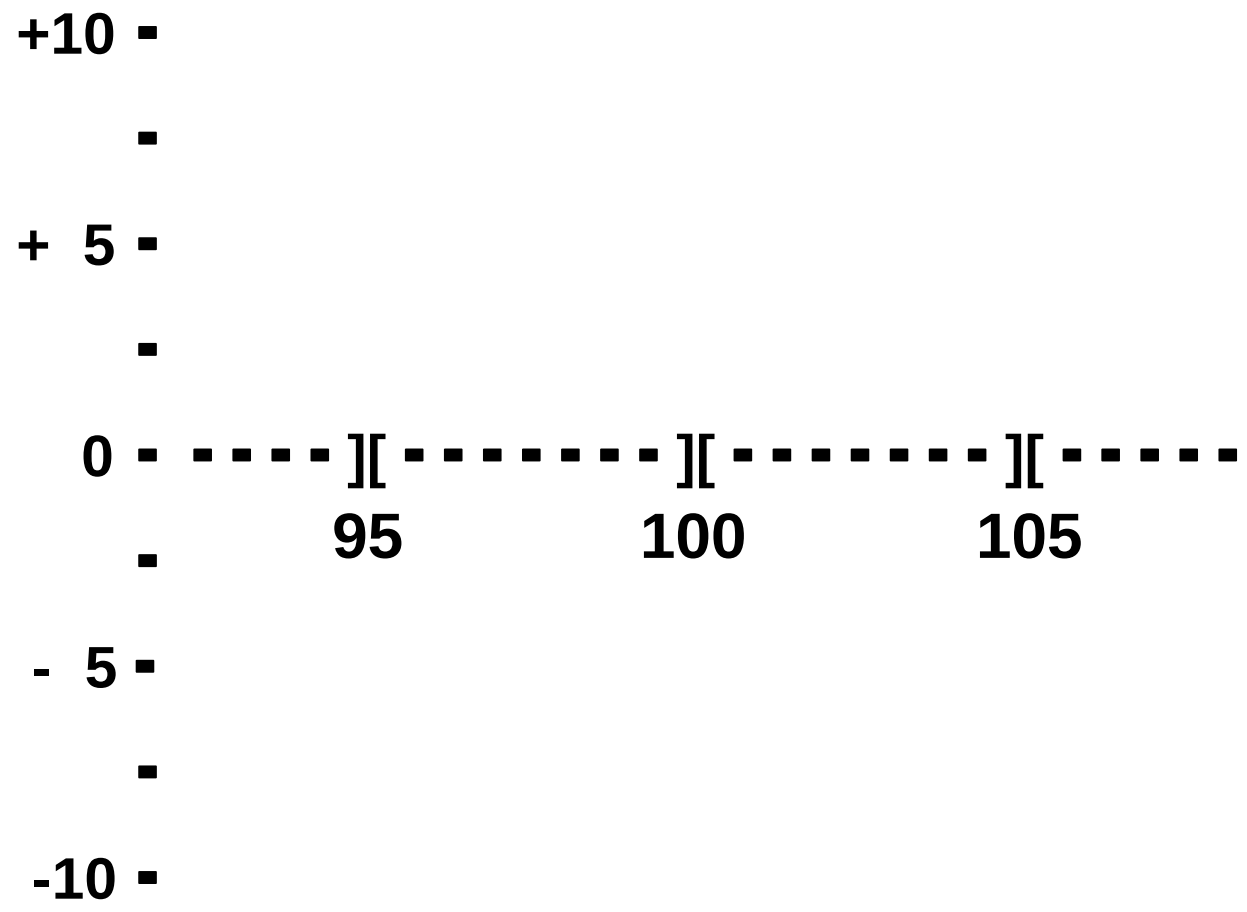
The straddle strategy involves buying both a call and a put with the same underlying, same strike price and same expiration date.

Buy 100 Call @ 3.00
Buy 100 Put @ 2.00

Stock Price	+100 Call at 3.00	+100 Put at 2.00	P /(L)
110			
105			
100			
95			
90			

Buy 100 Call @ 3.00
Buy 100 Put @ 2.00

P /(L)
+5.00
-0-
(5.00)
-0-
+5.00



Straddle – Possible Outcomes

AT EXPIRATION:

Stock price above the strike price:

- Put expires; call is exercised; stock is purchased at the strike price.

Stock price below the strike price:

- Call expires; Put is exercised; stock is sold at the strike price.

Stock price at the strike price:

- Both call and put expire; maximum loss.

Short Option Strategies

An option seller assumes an obligation in return for receiving the premium from the option buyer.

Option sellers have “short option” positions.

A “short call” is an obligation to sell the underlying stock at the strike price until expiration.

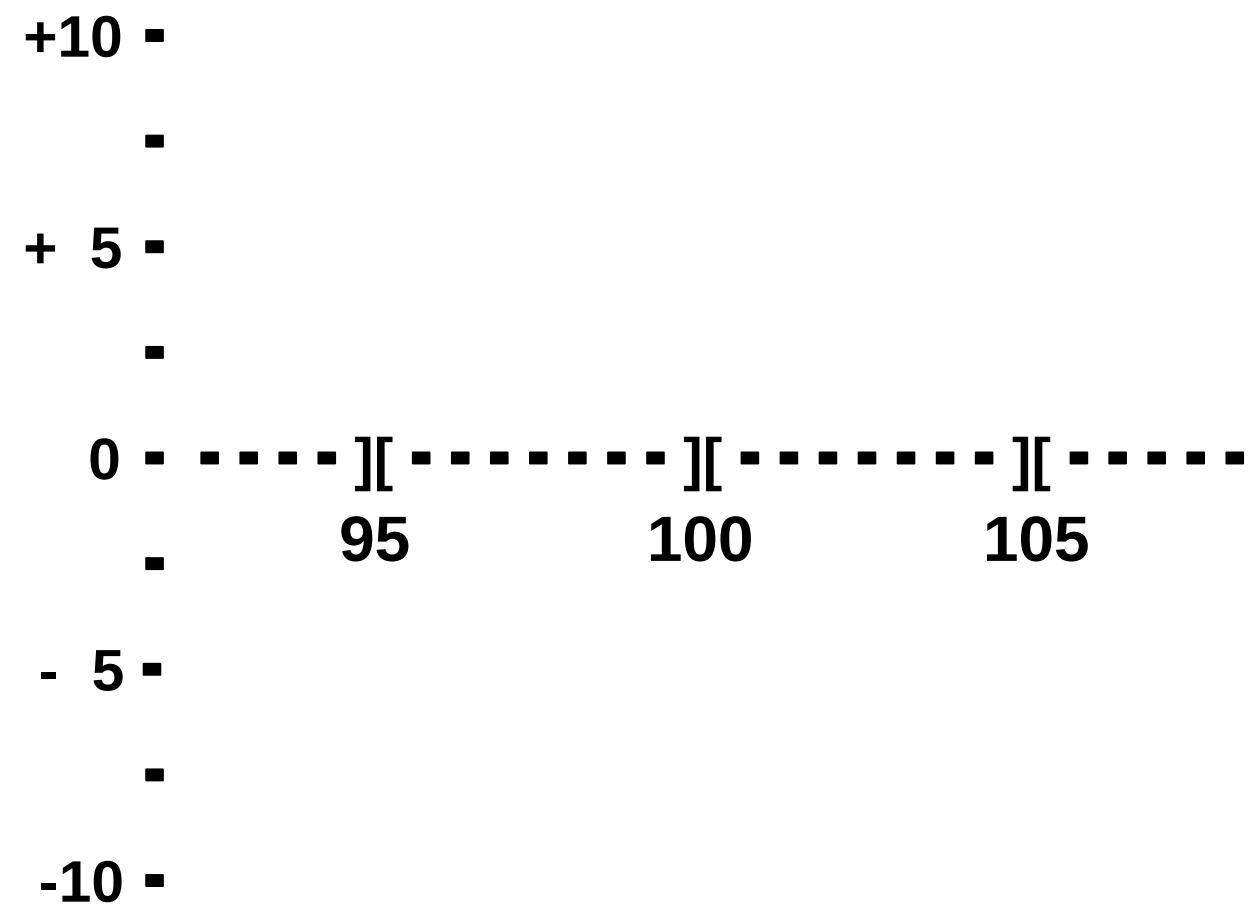
A “short put” is an obligation to buy the underlying stock at the strike price until expiration.

Short 1 100 Call @ 4.00

Stock Price	Sale Price	Value at Exp.	P /(L)
110			
105			
100			
95			
90			

Short 1 100 Call @ 4.00

P /(L)
(6)
(1)
+4
+4
+4



Short 1 100 Call @ 4.00

10. Bullish, bearish or neutral?

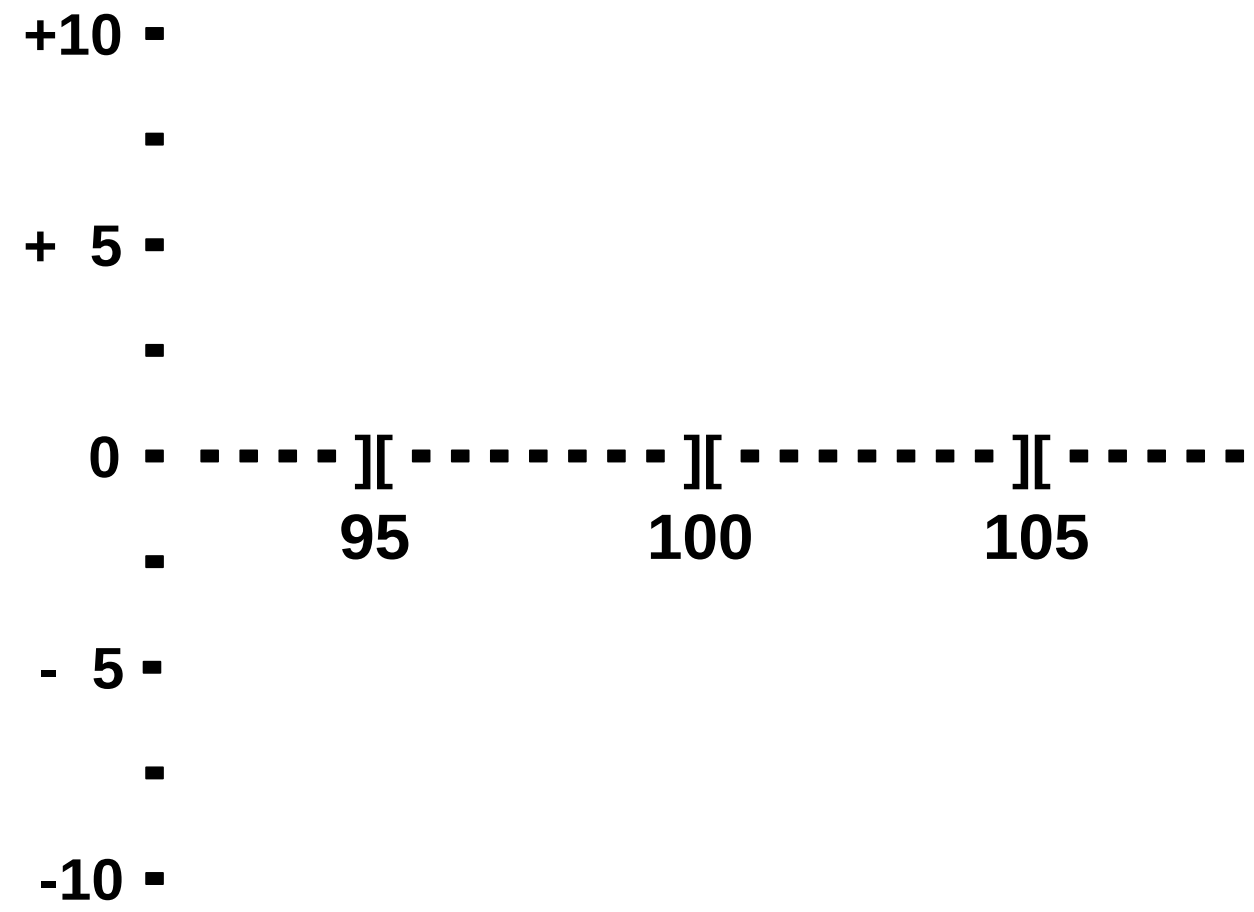
11. Max profit? Max risk?

Short 1 100 Put @ 3.00

Stock Price	Sale Price	Value at Exp.	P /(L)
110			
105			
100			
95			
90			

Short 1 100 Put @ 3.00

P /(L)
+3
+3
+3
(2)
(7)



Short 1 100 Put @ 3.00

10. Bullish, bearish or neutral?

Neutral to bullish

11. Max profit?

Limited to premium received

Max risk?

Substantial

Stock & Option Strategies

Options can be added to stock positions to target a range of investment objectives such as increasing income and limiting risk.

The protective put strategy involves buying puts and stock on a share-for-share basis.

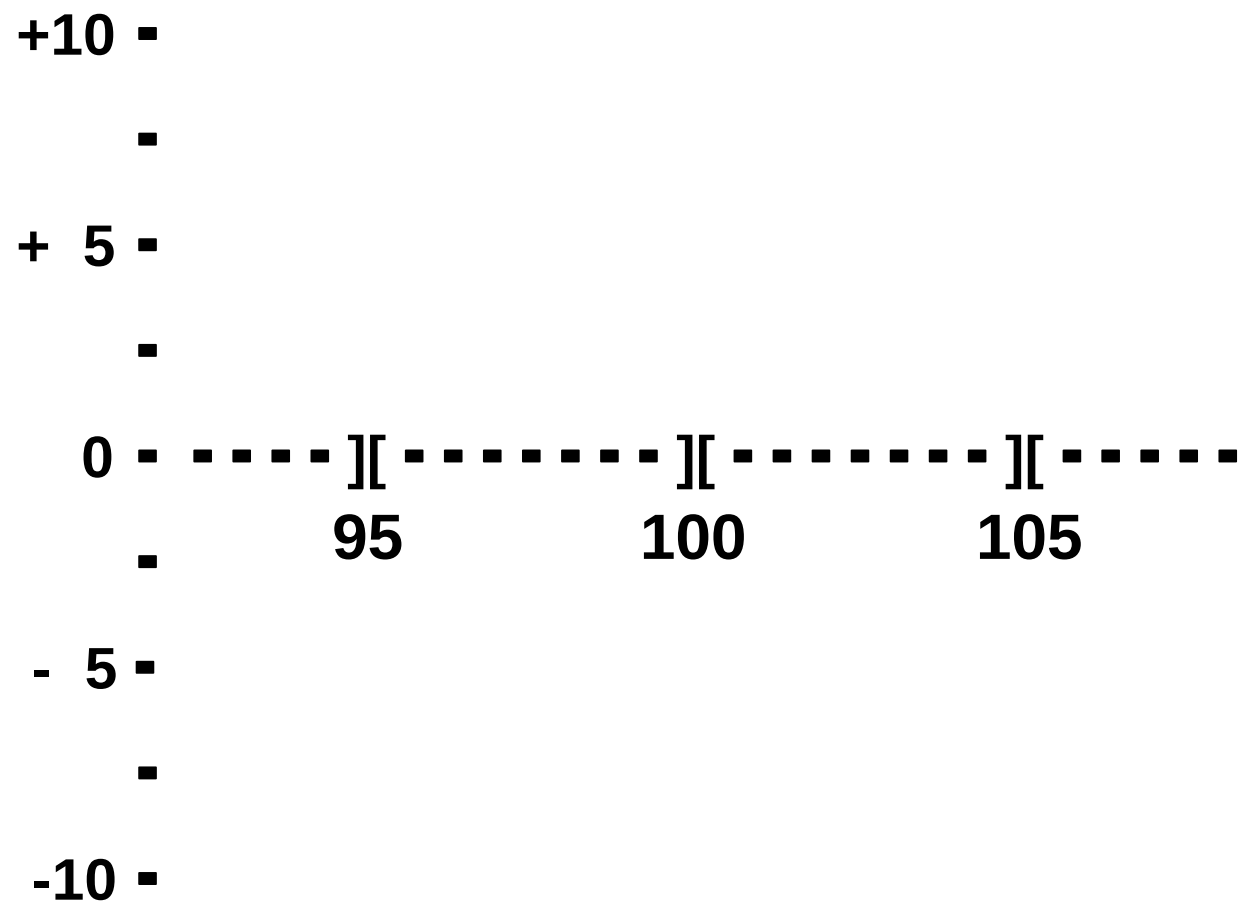
The covered call strategy involves buying stock and selling calls on a share-for-share basis.

Buy Stock @ 98.00
Short 100 Call @ 3.50

Stock Price	Long Stk at 98.00	-100 Call at 3.50	P /(L)
110			
105			
100			
95			
90			

The Covered Call

P /(L)
+5.50
+5.50
+5.50
+0.50
(4.50)



Covered Calls – Possible Outcomes

AT EXPIRATION:

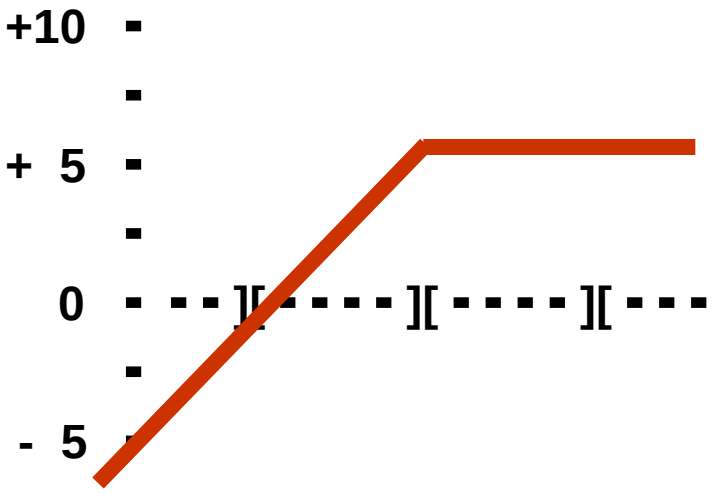
Stock price at or below the strike price:

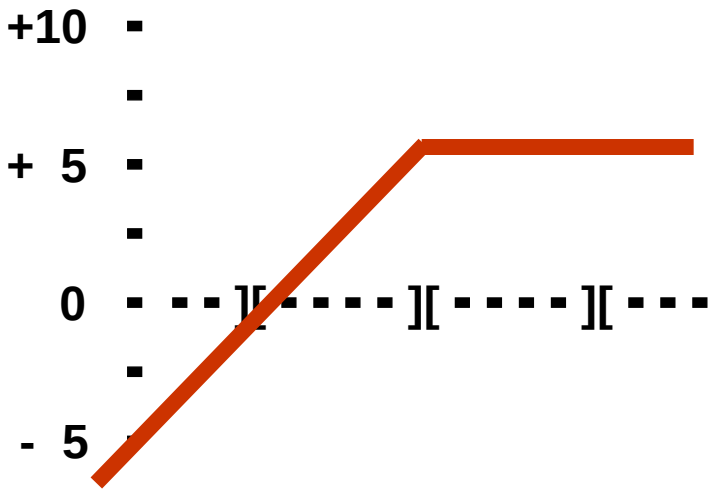
- Call expires; stock position is kept

Stock price above the strike price:

- Call is assigned – stock is sold at the strike price.

Similar to Another Strategy?





Covered Call

Does this look like another strategy we have seen earlier?

Mechanics at Expiration

Exercise means _____

Assigned means _____

Mechanics at Expiration

Exercise a long call: _____

Exercise a long put: _____

Assigned on a short call: _____

Assigned on a short put: _____

Exercise / Assignment Problems 1

Option Position	Initial Stock Position	Stock Price at Exp	Expire Exercise Assigned	Ending Stock Position
Long 5 70 Call	none	$78		

Exercise / Assignment Problems 2

Option Position	Initial Stock Position	Stock Price at Exp	Expire Exercise Assigned	Ending Stock Position
Long 5 75 Put	none	$66		

Exercise / Assignment Problems 3

Option Position	Initial Stock Position	Stock Price at Exp	Expire Exercise Assigned	Ending Stock Position
Long 3 60 Put	Long 300 shrs	$58		

Exercise / Assignment Problems 4

Option Position	Initial Stock Position	Stock Price at Exp	Expire Exercise Assigned	Ending Stock Position
Short 10 90 Put	none	$86		

Exercise / Assignment Problems 5

Option Position	Initial Stock Position	Stock Price at Exp	Expire Exercise Assigned	Ending Stock Position
Short 5 95 Call	Long 500 shrs	$99		

Summary

Terminology

Profit / loss diagrams

Mechanics at expiration

THANK YOU FOR ATTENDING.

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ANSWERS

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The Basics of Options

What are Options?

Options are **contracts**

- Option buyers get **rights**
- Option sellers get **obligations**

What are Options?

Buyers of calls get **right to buy**

Sellers of calls get **obligation to sell**

Buyers of puts get **right to sell**

Sellers of puts get **obligation to buy**

An option trading instruction:

Buy to open 1 XYZ Dec 55 Call @ 6.70

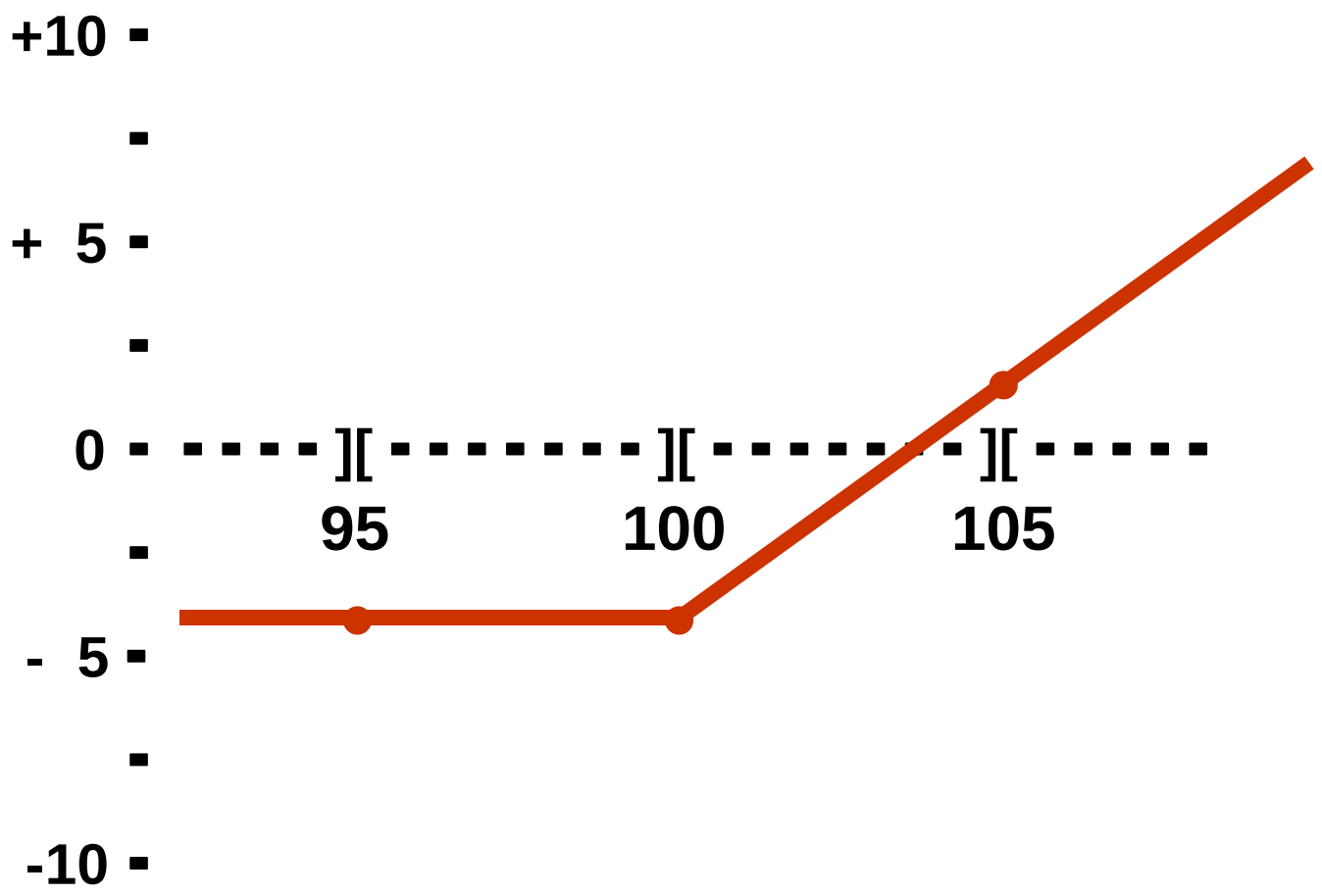
Buy	**the action (also sell)**
open	**creates a new position**
	(close eliminates an existing position)
1	**quantity of contracts**
XYZ	**the underlying (usually 100 shares)**
Dec	**Expiration month (3rd Friday)**
55	**Strike price or exercise price**
Call	**Option type (also put)**
6.70	**Price per share ($670 per option)**

Buy 1 100 Call @ 4.00

Stock Price	Value at Exp.	Cost	P /(L)
110	10	4	+6
105	5	4	+1
100	0	4	(4)
95	0	4	(4)
90	0	4	(4)

Buy 1 100 Call @ 4.00

P /(L)
+6
+1
(4)
(4)
(4)



Buy 1 100 Call @ 4.00

1. Bullish, bearish or neutral?

Bullish – b/e above stock price

2. Max profit?

Profit potential unlimited

Max risk?

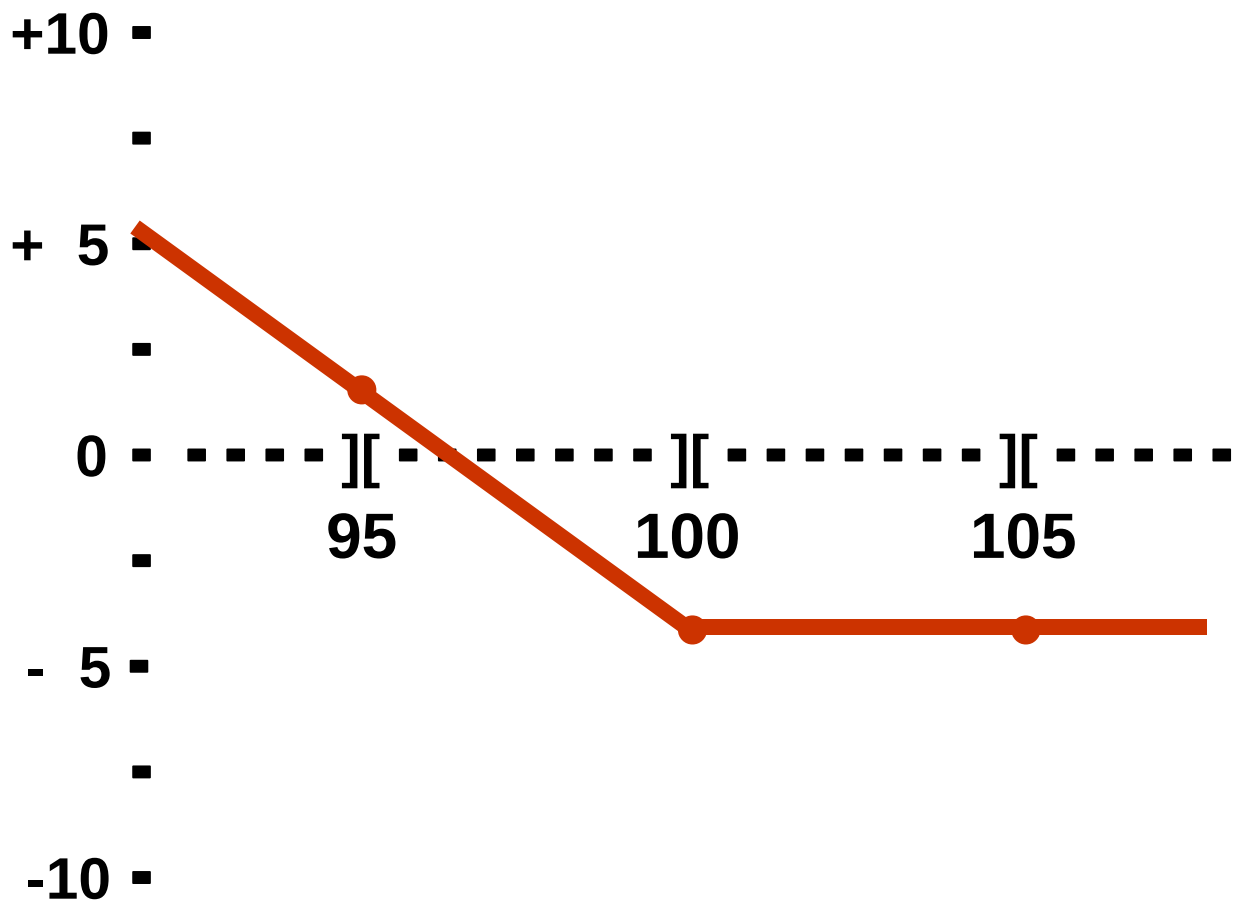
Risk limited to price paid

Buy 1 100 Put @ 3.00

Stock Price	Value at Exp.	Cost	P /(L)
110	0	3	(3)
105	0	3	(3)
100	0	3	(3)
95	5	3	+2
90	10	3	+7

Buy 1 100 Put @ 3.00

P /(L)
(3)
(3)
(3)
+2
+7



Buy 1 100 Put @ 3.00

4. Bullish, bearish or neutral?

Bearish – b/e below stock price

5. Max profit?

Profit potential substantial

Max risk?

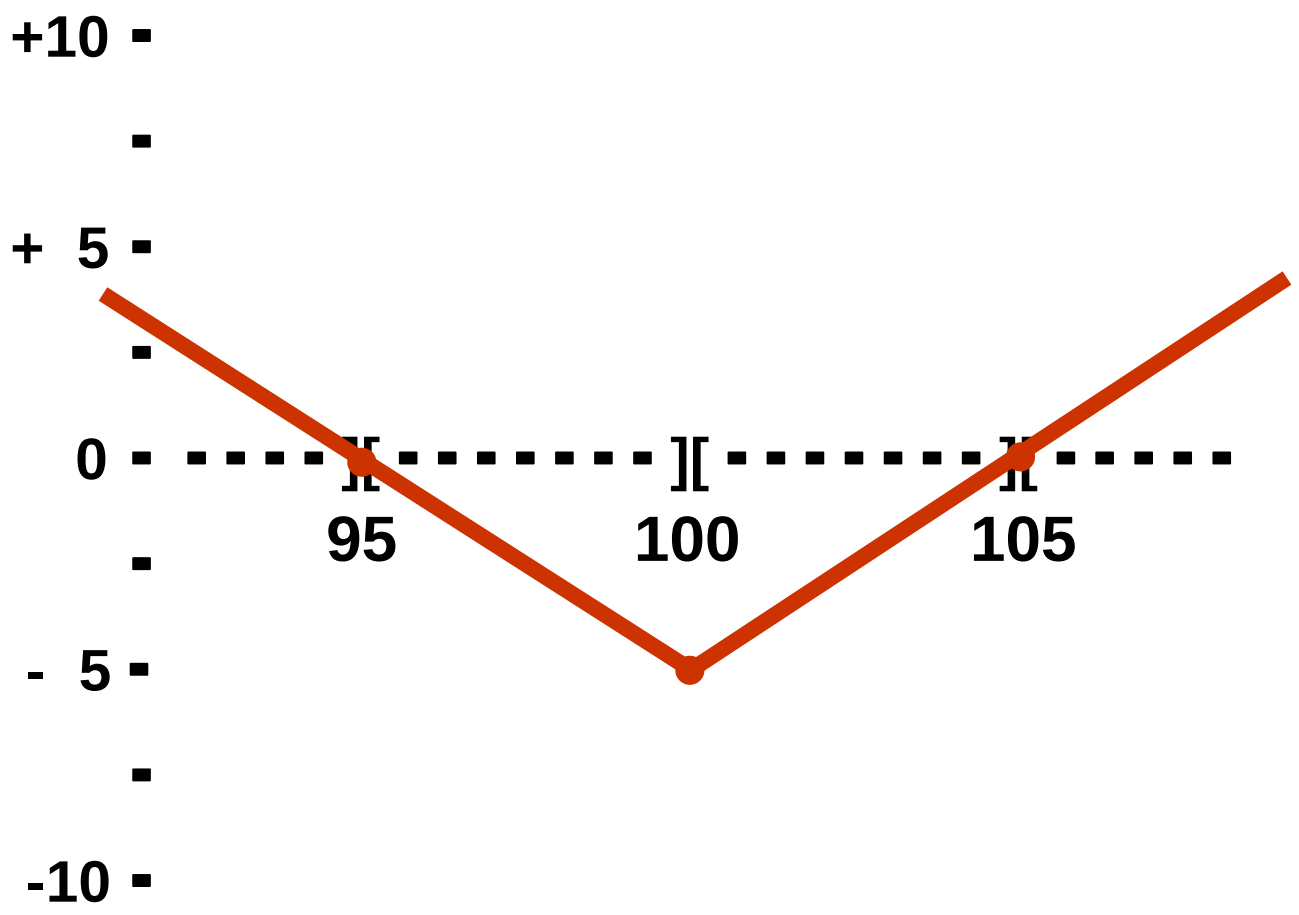
Risk limited to price paid

Buy 100 Call @ 3.00
Buy 100 Put @ 2.00

Stock Price	+100 Call at 3.00	+100 Put at 2.00	P /(L)
110	+7.00	(2.00)	+5.00
105	+2.00	(2.00)	-0-
100	(3.00)	(2.00)	(5.00)
95	(3.00)	+3.00	-0-
90	(3.00)	+8.00	+5.00

Buy 100 Call @ 3.00
Buy 100 Put @ 2.00

P /(L)
+5.00
-0-
(5.00)
-0-
+5.00

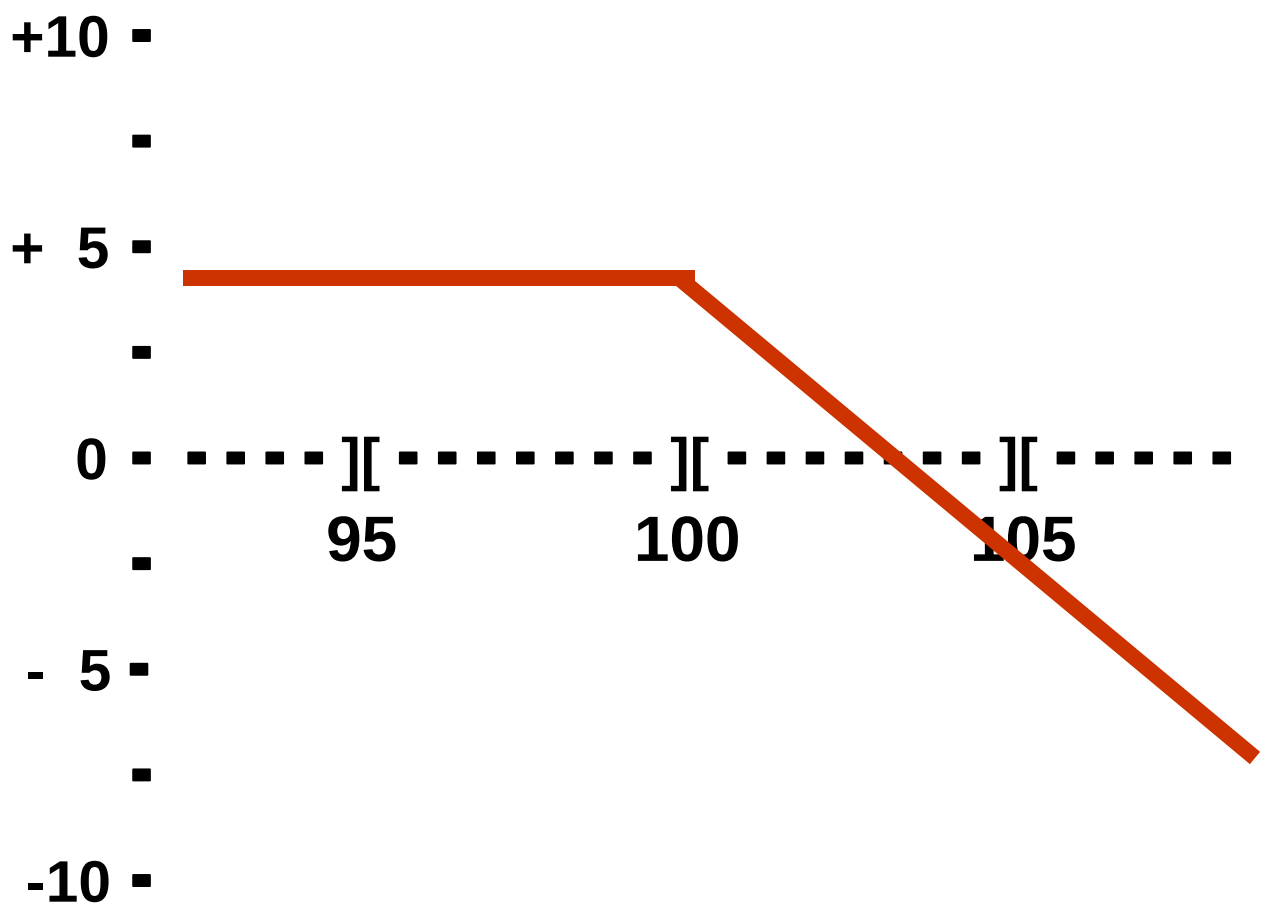


Short 1 100 Call @ 4.00

Stock Price	Sale Price	Value at Exp.	P /(L)
110	4	10	(6)
105	4	5	(1)
100	4	0	+4
95	4	0	+4
90	4	0	+4

Short 1 100 Call @ 4.00

P /(L)
(6)
(1)
+4
+4
+4



Short 1 100 Call @ 4.00

10. Bullish, bearish or neutral?

Neutral to bearish

11. Max profit?

Limited to premium received

Max risk?

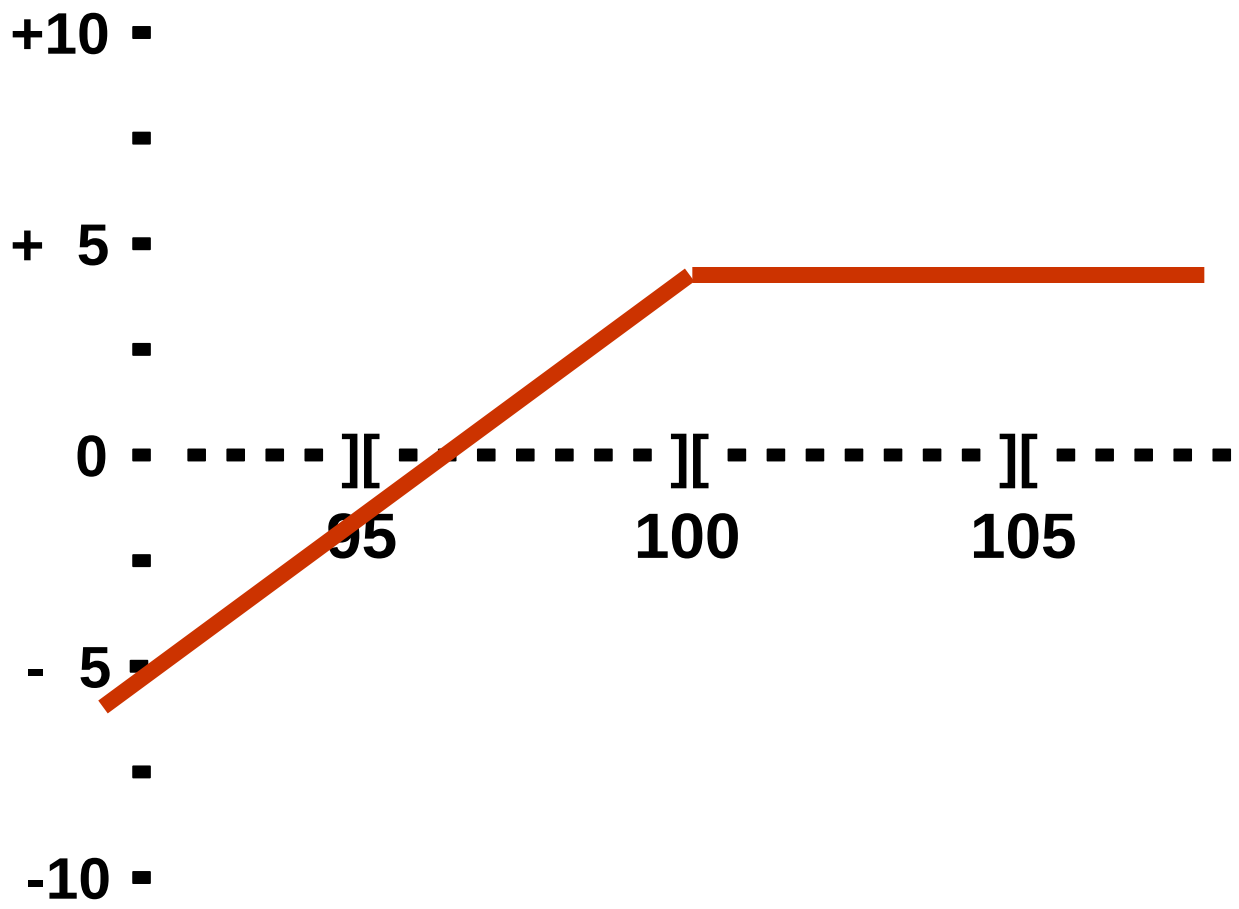
Unlimited

Short 1 100 Put @ 3.00

Stock Price	Sale Price	Value at Exp.	P /(L)
110	3	0	+3
105	3	0	+3
100	3	0	+3
95	3	5	(2)
90	3	10	(7)

Short 1 100 Put @ 3.00

P /(L)
+3
+3
+3
(2)
(7)



Short 1 100 Put @ 3.00

10. Bullish, bearish or neutral?

Neutral to bullish

11. Max profit?

Limited to premium received

Max risk?

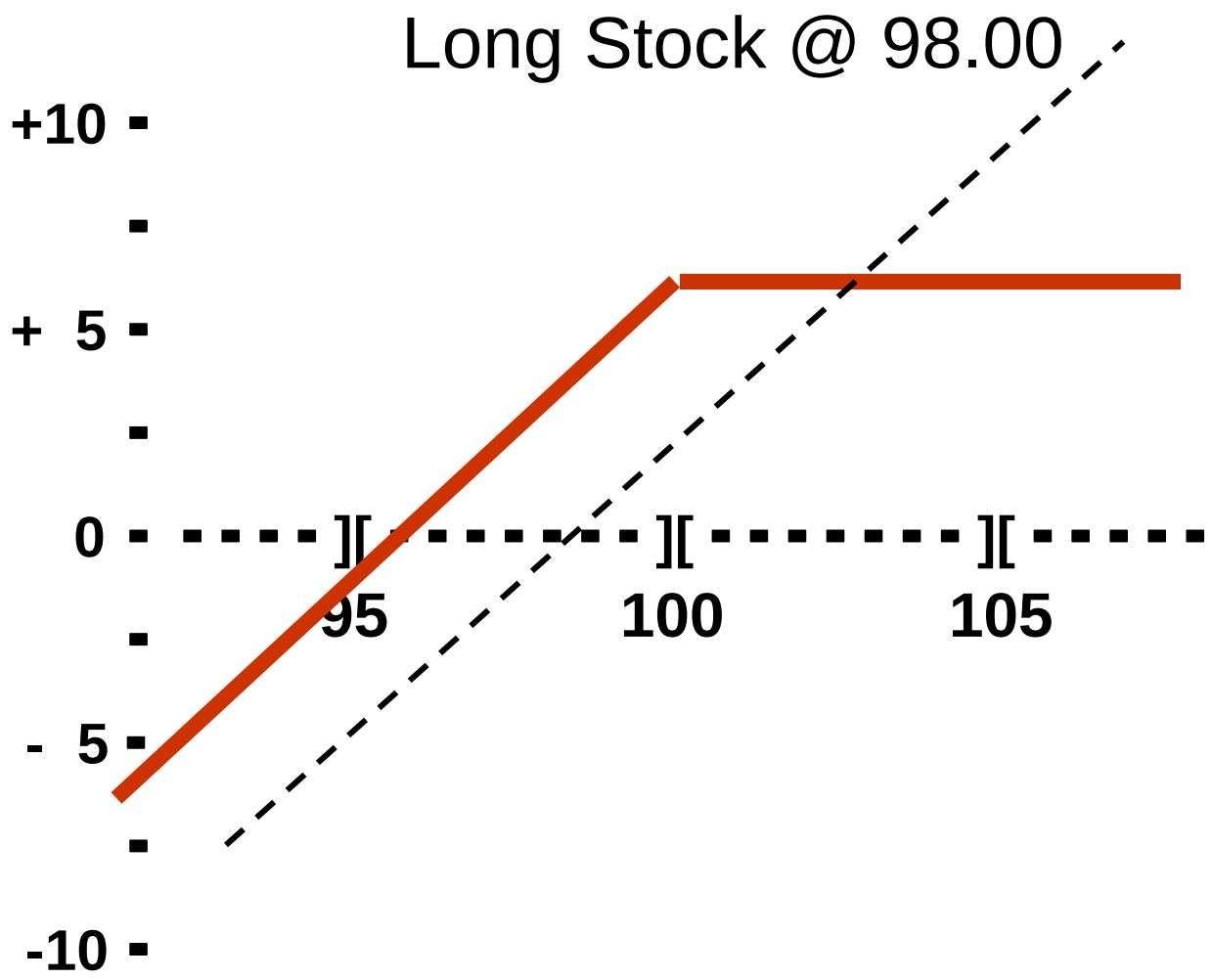
Substantial

Buy Stock @ 98.00
Short 100 Call @ 3.50

Stock Price	Long Stk at 98.00	-100 Call at 3.50	P /(L)
110	+12	(6.50)	+5.50
105	+7	(1.50)	+5.50
100	+2	+3.50	+5.50
95	(3)	+3.50	+0.50
90	(8)	+3.50	(4.50)

The Covered Call

P /(L)
+5.50
+5.50
+5.50
+0.50
(4.50)



Covered Calls – Possible Outcomes

AT EXPIRATION:

Stock price at or below the strike price:

- Call expires; stock position is kept

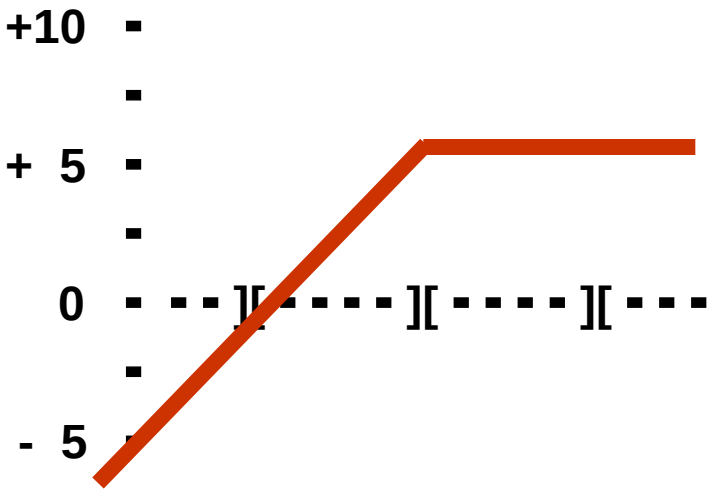
Stock price above the strike price:

- Call is assigned – stock is sold at the strike price.

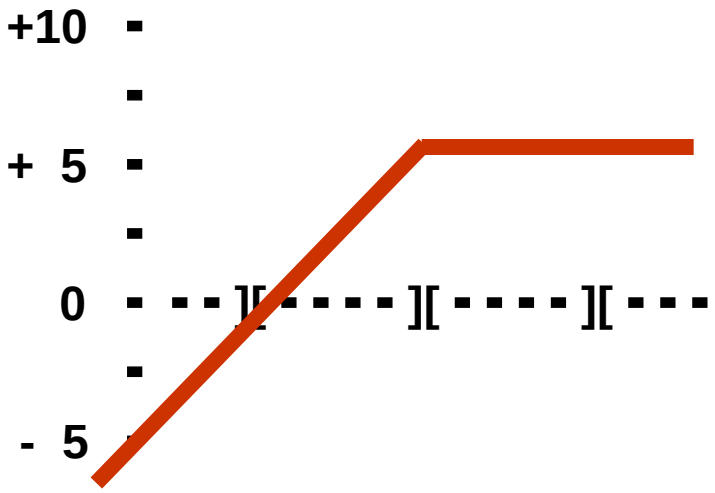
Stock options can be exercised on any business day prior to expiration.

Early exercise is usually related to dividends. Calls are exercised the day before the ex-date, and puts are exercised on the ex-date.

Similar to Another Strategy?



Covered Call



Short Put

Does this look like another strategy we have seen earlier?

Another example of put-call parity

Mechanics at Expiration

Exercise means **Invoke the right contained in the option contract**

Assigned means **Be chosen to fulfill the obligation of a short option**

Mechanics at Expiration

Exercise a long call: **Buy stock**

Exercise a long put: **Sell stock**

Assigned on a short call: **Sell stock**

Assigned on a short put: **Buy stock**

Exercise / Assignment Problems 1

Option Position	Initial Stock Position	Stock Price at Exp	Expire Exercise Assigned	Ending Stock Position
Long 5 70 Call	none	$78	**I-T-M Long Exercise**	**Long 500 shrs**

Exercise / Assignment Problems 2

Option Position	Initial Stock Position	Stock Price at Exp	Expire Exercise Assigned	Ending Stock Position
Long 5 75 Put	none	$66	**I-T-M Long Exercise**	**Short 500 shrs**

Exercise / Assignment Problems 3

Option Position	Initial Stock Position	Stock Price at Exp	Expire Exercise Assigned	Ending Stock Position
Long 3 60 Put	Long 300 shrs	$58	**I-T-M Long Exercise**	**No Position**

Exercise / Assignment Problems 4

Option Position	Initial Stock Position	Stock Price at Exp	Expire Exercise Assigned	Ending Stock Position
Short 10 90 Put	none	$86	**I-T-M Short Assigned**	**Long 1,000 shares**

Exercise / Assignment Problems 5

Option Position	Initial Stock Position	Stock Price at Exp	Expire Exercise Assigned	Ending Stock Position
Short 5 95 Call	Long 500 shrs	$99	**I-T-M Short Assigned**	**No Position**