Trading around a position using covered calls

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Roger Manzolini June 23, 2011

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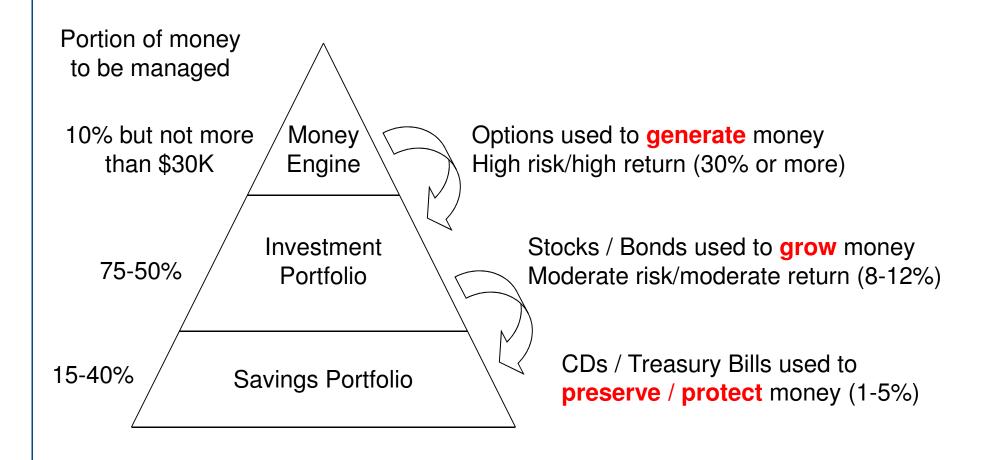
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Additional caution: My peers call me Maddog

Agenda

- Introduction
- Option Basics
- Covered Calls
- Trading Examples
- Comparison of Approaches

Introduction High Level Strategic View



Introduction Market Composition

12	Sectors	Basic Materials	Capital Goods	Conglomerates	Consumer Cydicals	Consumer Non-Cyclicals	Energy	Financial	Healthcare	Serviæs	Technology	Transportation	Utilities
102	Industries	11	7	1	12	8	4	10	4	25	11	6	3
14,387	Stocks	2,032	635	90	479	406	1,054	3,674	1,243	2,296	1,990	226	262
1		207	105	90	70	37	57	122	708	78	224	11	164
2		26	37		28	49	83	23	158	101	34	43	71
3		62	84		45	27	712	52	33	369	38	48	27
4		23	42		44	15	202	22	344	76	49	20	
5		23	159		91	175		127		296	347	38	
6		1,045	197		25	12		183		38	28	66	
7		48	11		43	79		2,252		66	266		
8		384			15	12		43		49	17		
9	>	81			12			649		75	129		
10	# Stocks in each Industry	92			83			201		19	272		
11	<u> </u>	41			15					345	586		
12	듗				8					57			
13	<u>8</u>									41			
14	S :									102			
15	Ř									65			
16	<i>5</i> 5									46			
17										33			
18										26			
19										50			
20										11			
21										119			
22										16			
23										62			
24										57			
25										99			

Introduction

Basic premise

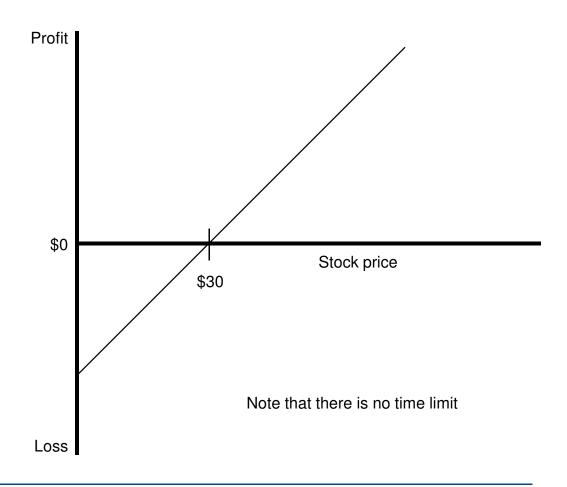
- You're familiar with typical buying, holding and selling stocks
- Portfolio performance can be improved over that typical approach through the use of options
- You can set up positions where you are paid to:
 - Hold your stock as you're accustomed to, or
 - Sell your stock at a profit
- The risk is that you give up the potential opportunity of making more money

Introduction

Understanding stock transactions

- Profit (loss) from a "buy stock" transaction
 - → You're "long stock"
 - i.e., you bought stock with the intent to sell it in the future at a higher price to make a profit

Buy low, sell high

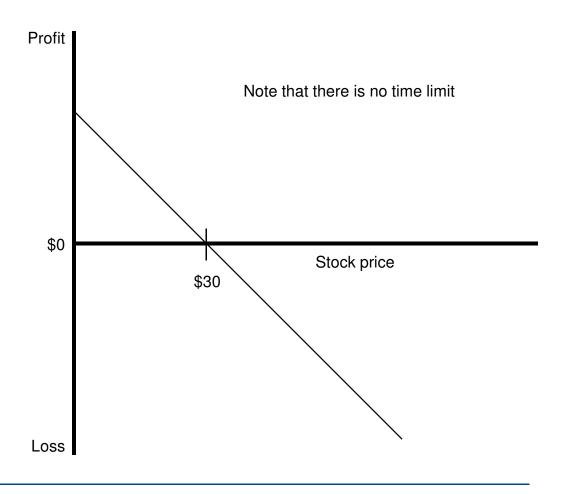


Introduction

Understanding stock transactions

- Profit (loss) from a "sell stock" transaction
 - → You're "short stock"
 - i.e., you sold stock that you didn't have with the intent to buy it back in the future at a lower price to make a profit

Sell high, buy low



Options

- What is an option?
 - An option is a contract that gives the holder of the option the *right*, but not the obligation, to buy or sell an asset at a specific price on or before a specific date
 - → For example:
 - Option on a piece of property for sale
 - Not the focus of this discussion
 - Stock options
 - Subject of discussion today
 - with focus on selling calls

Types of options

- American option
 - An option that can be exercised anytime up to and including expiration date
 - The type traded in our markets
- European option
 - An option that can only be exercised on the expiration date
- Bermuda options ...certain dates ...
- Asian options ...
- Exotic options ...
- …all kinds of options; most of which we don't care about

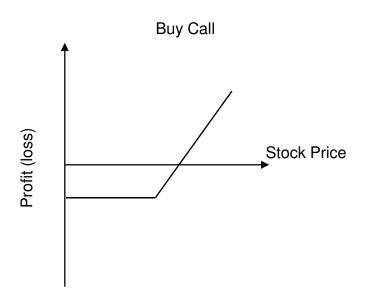
Option lingo

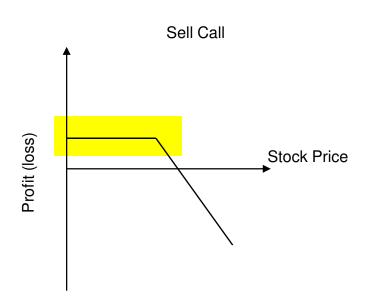
- Strike price; also called exercise price
 - The price the underlying stock may be bought or sold
- Premium
 - The cost of the option to the buyer
 - A credit to the seller
- Expiration date
 - The date the option expires. The last day the option can be exercised
 - Typically up to 9 months (longer out…leaps)
 - The 3rd Friday of the month
- Exercising the option (option is assigned)
 - When the underlying stock is bought or sold

Specific types

- Call option
 - → Option that provides the buyer the right, but not the obligation, to buy at the strike price on or before the expiration date
 - → Buyers of call options profit when the stock price rises above the strike price, plus the premium they paid for the option
 - Sellers of call options profit when the stock price remains below the strike price

Money and Investing Call Options "hockey sticks"





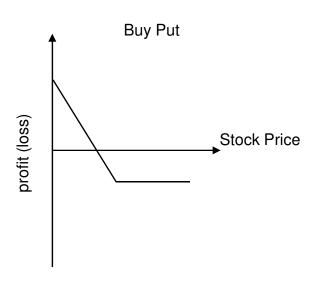
Money and Investing Specific types

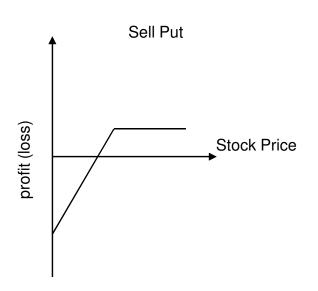


- Put options
 - Options that provides the buyer the right, but not the obligation, to sell at the strike price on or before the expiration date
 - → Buyers of put options profit when the stock price drops below the strike price, minus the price they paid for the option
 - → Sellers of put options profit when the stock remains above the strike price

Money and Investing Put Options "hockey sticks"







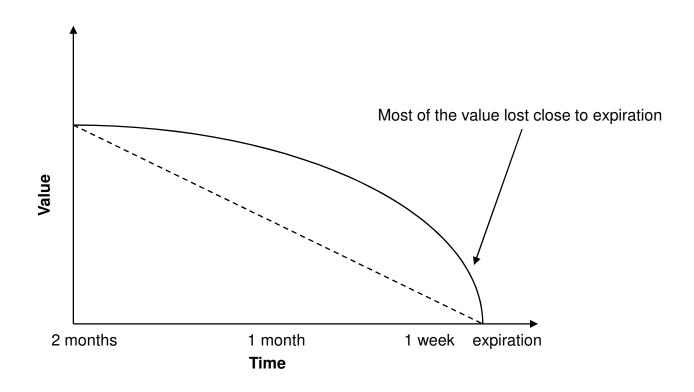
Money and Investing Option Rights and Obligations

Initiator	Call option	Put option					
Option buyer (holder, long in options)	Right to buy stock at strike price	Right to sell stock at strike price					
Option seller (writer, short in options)	Obligation to sell stock at strike price	Obligation to buy stock at strike price					

Options

- Price
 - → Price = intrinsic value + time value fees
 - Intrinsic value = The amount by which an option is "in the money"
 - Call: stock price strike price
 - Put: strike price stock price
 - Time value = the portion of the option price that is in excess of the intrinsic value, due to the amount of volatility in the stock; sometime referred to as premium. Time value is positively related to the length of time remaining until expiration

Time value decay



Option Value

- The value of an option at expiration is a function of the stock price and the strike price
- Just the intrinsic value; there is no time value

Example - Option values given a strike price of \$85

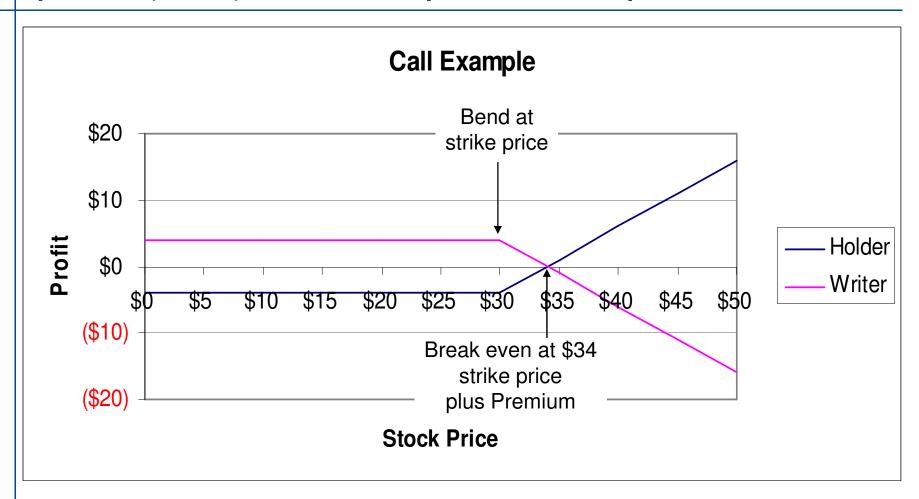
Stock Price	\$60	\$70	\$80	\$85	\$90	\$100	\$110
Call Value	\$0	\$0	\$0	\$0	\$5	\$15	\$25
Put Value	\$25	\$15	\$5	\$0	\$0	\$0	\$0

Example of a call option

 Suppose a call option has an strike price of \$30 and a premium of \$4 (no time value or fees)

		Stock price	Call		
Strike price	Premium	at	holder's	Holder	Writer
		expiration	payoff		
\$30	\$4	\$0	\$0	-\$4	\$4
\$30	\$4	\$10	\$0	-\$4	\$4
\$30	\$4	\$15	\$0	-\$4	\$4
\$30	\$4	\$20	\$0	-\$4	\$4
\$30	\$4	\$25	\$0	-\$4	\$4
\$30	\$4	\$30	\$0	-\$4	\$4
\$30	\$4	\$35	\$5	\$1	-\$1
\$30	\$4	\$40	\$10	\$6	-\$6
\$30	\$4	\$45	\$15	\$11	-\$11
\$30	\$4	\$50	\$20	\$16	-\$16

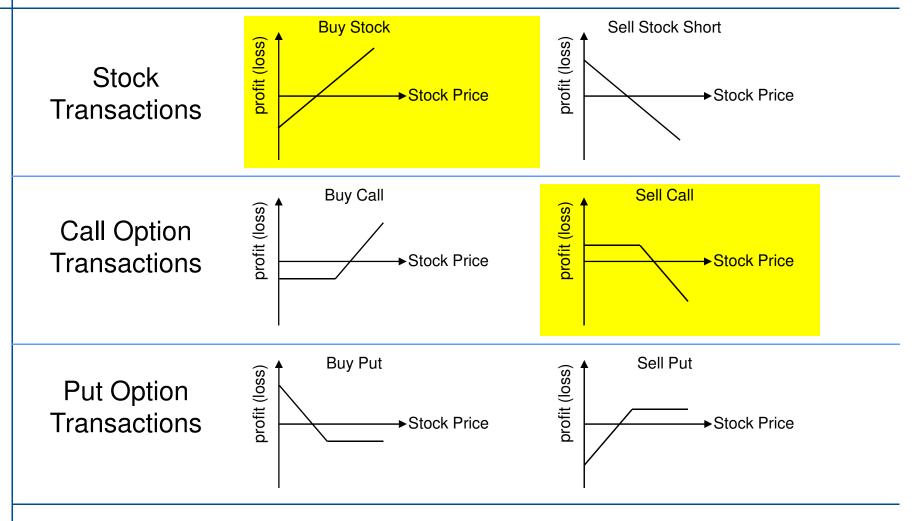
Money and Investing profit (loss) of Call Option at Expiration



Trading Strategies with Options

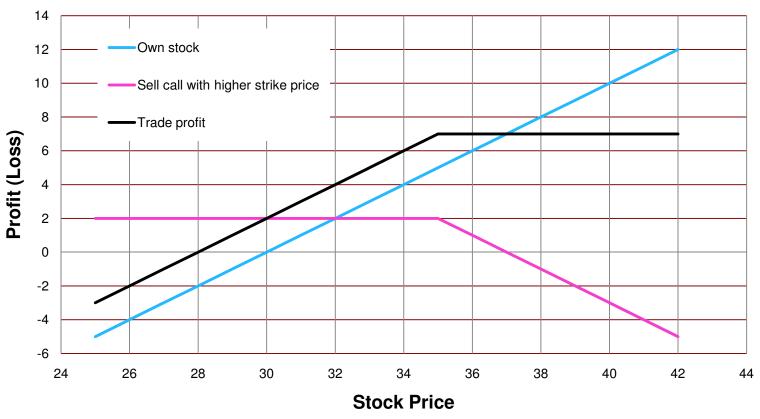
- Protective Put
 - Strategy for "portfolio insurance"
- Covered Call
 - Strategy for "undisciplined sell, cash flow"
- Straddle
 - Strategy for "profiting from high volatility"
- Bull Spread
 - Like covered call but limits loss risk
- Butterfly Spread
 - Strategy for "profiting from low volatility"

Money and Investing Summary of profit (loss) Graphs



Covered Call - Strategy for "undisciplined sell"

Typical Covered Call Set-up Example



Possible Outcomes

- Stock goes down
 - Your loss is \$2 less than if you hadn't sold the call
- Stock remains the same (or goes up to just below the strike price of \$35
 - Your gain is \$2 more than if you hadn't sold the call
- Stock goes up and exceeds the strike price of \$35
 - Option is assigned and you must sell your stock at \$35
 - Your gain is \$7 per share
 - \$2 premium from the sold option
 - \$5 from the stock sale



Other things to know

- Options can be traded just like stocks
- Options provide significant leverage and are volatile
 - → Returns range from 100% loss to very significant gains (1,000%).
- Each option represents 100 shares of stock
 - ▼ E.g. selling 5 options grants the buyer the right to buy 500 shares of your stock at the strike price
- Most (~2/3) options expire worthless
 - This is very advantageous for option writers
 - I liken this to being the "house" at a casino
 - Many probable small gains
 - No probable large wins
- It has been my experience that whenever I've been forced to sell stock at a profit, I was able to buy it back later at a lower price

- Excel to show
 - Covered call trade setup
 - Buy stock
 - Sell call
 - → 1 of 2 outcomes
 - Option expires
 - → gain premium only
 - Option is exercised
 - → gain premium and profit

Trade se	t-up								
	qty	security	urity price com		om		cost) emium		
Buy stock	100	AEM	\$	70.50	\$	7	\$	(7,057)	
sell option	1	AEM Feb11 75.00 call	\$	0.85	\$	8	\$	77	
Gain if o	ption e	xpires						Gain	
							\$	77	1.1%
Gain if o	ption is	exercised							
	qty	security		orice	CO	om	re	eceive	
Sell stock	100	AEM	\$	75.00	\$	36	\$	7,464	
								Gain	
							\$	484	6.9%

Trade se	t-up								
	qty	security	I	price com			cost) emium		
Buy stock	100	GOLD	\$	79.50	\$	7	\$	(7,957)	
sell option	1	GOLD SEPT11 87.50 call	\$	3.00	\$	8	\$	292	
Gain if o	ption e	xpires						Gain	
							\$	292	3.7%
Gain if o	ption is	exercised							
	qty	security		orice	CC	om	receive		
Sell stock	100	GOLD	\$	87.50	\$	36	\$	8,714	
								Gain	
							\$	1,049	13.2%

Trade se	t-up								
	qty	security	price com p			(cost) emium			
Buy stock	300	MRK	\$	32.00	\$	7	\$	(9,607)	
sell option	3	MRK OCT11 35.00 call	\$	1.09	\$	11	\$	316	
Gain if o	ption e	xpires						Gain	
							\$	316	3.3%
Gain if o	ption is	s exercised							
	qty	security		orice	C	om	re	eceive	
Sell stock	300	MRK	\$	35.00	\$	36	\$	10,464	
								Gain	
							\$	1,173	12.2%

Trade se	t-up							
	qty	security	ı	orice	com		cost) emium	
Buy stock	2000	NAT	\$	22.52	\$ 7	\$	(45,047)	
sell option	20	NAT OCT11 25.00 call	\$	0.55	\$ 32	\$	1,068	
Gain if o	Gain if option expires						Gain	
						\$	1,068	2.4%
Gain if o	ption is	exercised						
	qty	security		orice	com	re	eceive	
Sell stock	2000	NAT	\$	25.00	\$ 36	\$	49,964	
							Gain	
						\$	5,985	13.3%

Trade se	t-up								
	qty	security	ı	orice	C	om	•	cost) emium	
Buy stock	500	SLV	\$	32.99	\$	7	\$ ((16,502)	
sell option	5	SLV JUN11 36.00 call	\$	1.45	\$	13	\$	712	
Gain if o	ption e	xpires					(Gain	
							\$	712	4.3%
Gain if o	ption is	exercised							
	qty	security		orice	C	om	receive		
Sell stock	500	SLV	\$	36.00	\$	36	\$	17,964	
							(Gain	
							\$	2,174	13.2%

- Excel to show
 - Actual trades
 - Buy stock
 - Sell call
 - Buy back call
 - Option expires
 - Option is exercised (assigned)

Results with covered calls

<u>Symbol</u>	Description	Commission	<u>Amount</u>	<u>comments</u>
<u>AEM</u>	BOUGHT 150 SHARES OF AEM AT \$70.50	(\$7.00)	(\$10,582.00)	buy stock
<u>AEM</u>	BOUGHT 50 SHARES OF AEM AT \$61.98	(\$7.00)	(\$3,106.00)	buy stock
AEM 75.00 FEB 11 C	SOLD TO OPEN 1 CONTRACT OF OPTION AEM 110219C00075000 AT \$0.85	(\$8.26)	\$76.74	sell call
AEM 75.00 FEB 11 C	OPTION EXPIRED -1 CONTRACTS OF AEM 110219C00075000	\$0.00	\$0.00	option expired
ABX	BOUGHT 250 SHARES OF ABX AT \$46.1599	(\$7.00)	(\$11,546.98)	buy stock
ABX 50.00 FEB 11 C	SOLD TO OPEN 2 CONTRACTS OF OPTION ABX 110219C00050000 AT \$0.65	(\$9.51)	\$120.49	sell call
ABX	AS OF: SOLD 200 SHARES OF ABX AT \$50.00	(\$17.20)	\$9,982.80	forced to sell stock
ABX 50.00 FEB 11 C	OPTION ASSIGNED: 2 CONTRACTS OF ABX 110219C00050000	\$0.00	\$0.00	option assigned
ABX	BOUGHT 200 SHARES OF ABX AT \$49.86	(\$7.00)	(\$9,979.00)	bought back stock
ABX 60.00 JAN 12 C	SOLD TO OPEN 2 CONTRACTS OF OPTION ABX 120121C00060000 AT \$3.05	(\$9.52)	\$600.48	sell call
ABX 60.00 JAN 12 C	BOUGHT TO CLOSE 2 CONTRACTS OF OPTION ABX 120121C00060000 AT \$2.65	(\$9.50)	(\$539.50)	buy back call
NUE 43.00 JUL 11 C	Sold to Open 10c @ \$1.11 (9:30 AM)	(\$19.53)	\$1,090.47	sell call
NUE 43.00 JUL 11 C	Bought to Close 10c @ \$0.80 (1:30 PM)	(\$19.50)	(\$819.50)	buy back call
GOLD	BOUGHT 100 SHARES OF GOLD AT \$79.50	(\$7.00)	(\$7,957.00)	buy stock
GOLD 87.50 SEP 11 C	SOLD TO OPEN 1 CONTRACT OF OPTION GOLD SEP 11 87.50 C AT \$3.00	(\$8.26)	\$291.74	sell call
MRK	BOUGHT 300 SHARES OF MRK AT \$32.00	(\$7.00)	(\$9,607.00)	buy stock
MRK 35.00 OCT 11 C	SOLD TO OPEN 3 CONTRACT OF OPTION MRK OCT 11 35.00 C AT \$1.09	(\$10.76)	\$316.24	sell call
NAT	BOUGHT 2000 SHARES OF NAT AT \$22.52749	(\$7.00)	(\$45,058.48)	buy stock
NAT 25.00 OCT 11 C	SOLD TO OPEN 3 CONTRACT OF OPTION NAT OCT 11 25.00 C AT \$0.55	(\$10.76)	\$316.24	sell call
<u>SLV</u>	BOUGHT 500 SHARES OF SLV AT \$32.9999	(\$7.00)	(\$16,506.95)	buy stock
SLV 36.00 JUN 11 C	SOLD TO OPEN 5 CONTRACTS OF OPTION SLV JUN 11 \$36.00 C AT \$1.45	(\$13.27)	\$711.73	sell call
SLV 36.00 JUN 11 C	OPTION EXPIRED -3 CONTRACTS OF OPTION SLV JUN 11 \$36.00 C	\$0.00	\$0.00	option expired
		Amount sum	(\$102,195.48)	

Results without covered calls

<u>Symbol</u>	<u>Description</u>	Commission	<u>Amount</u>	<u>comments</u>
<u>AEM</u>	BOUGHT 150 SHARES OF AEM AT \$70.50	(\$7.00)	(\$10,582.00)	buy stock
<u>AEM</u>	BOUGHT 50 SHARES OF AEM AT \$61.98	(\$7.00)	(\$3,106.00)	buy stock
<u>ABX</u>	BOUGHT 250 SHARES OF ABX AT \$46.1599	(\$7.00)	(\$11,546.98)	buy stock
<u>GOLD</u>	BOUGHT 100 SHARES OF GOLD AT \$79.50	(\$7.00)	(\$7,957.00)	buy stock
<u>MRK</u>	BOUGHT 300 SHARES OF MRK AT \$32.00	(\$7.00)	(\$9,607.00)	buy stock
<u>NAT</u>	BOUGHT 2000 SHARES OF NAT AT \$22.52749	(\$7.00)	(\$45,058.48)	buy stock
SLV	BOUGHT 500 SHARES OF SLV AT \$32.9999	(\$7.00)	(\$16,506.95)	buy stock
		Amount sum	(\$104,364.41)	

Comparison of Approaches

- Results with Buy and Hold Approach
 - 7 Paid \$104,364.41 to own
 - 200 shares of AEM
 - 250 shares of ABX
 - 100 shares of GOLD
 - 2000 shares of NAT
 - 500 shares of SLV

- Results with Covered Call Options Approach
 - Paid \$104,364.41 to own the same shares
 - 200 shares of AEM
 - 250 shares of ABX
 - 100 shares of GOLD
 - 2000 shares of NAT
 - 500 shares of SLV
 - Collected \$2,168.93 in premiums

Comparison of Approaches

- Results with Buy and Hold Approach
 - 7 Paid \$104,364.41 to own
 - 200 shares of AEM
 - 250 shares of ABX
 - 100 shares of GOLD
 - 2000 shares of NAT
 - 500 shares of SLV

- Results with Covered Call Options Approach
 - Paid \$104,364.41 to own the same shares
 - 200 shares of AEM
 - 250 shares of ABX
 - 100 shares of GOLD
 - 2000 shares of NAT
 - 500 shares of SLV
 - Collected \$2,168.93 in premiums

Covered calls enhanced account by 2.1% over the same Buy and Hold account

Money and Investing Parting Thoughts

- What does it take?
 - Time to continue to educate yourself
 - Time to manage your trades
 - Positive attitude
 - Belief in yourself that you can do it
 - Separation of emotion from trading decisions
 - Learning from your mistakes
 - Tenacity to continue

The End

Additional info and other strategies

Option Intrinsic Value and profit (loss) Summary

	Call Option	Put Option
Intrinsic Value	Max(0, S-X)	Max(0, X-S)
Holder Profit	Max(0, S-X) – Premium	Max(0, X-S) – Premium
Writer Profit	- (Max(0, S-X) - Premium)	- (Max(0, X-S) - Premium)

Holder = Buyer S = Sell Price Writer = Seller X = Strike Price

	Call Option	Put Option
In-the-money	S > X	S < X
At-the-money	S = X	S = X
Out of-the-money	S < X	S > X

Money and Investing Components of the Option Price



- 1 Underlying stock price
- 2 Strike price
- 3 Time to expiration
- 4 Volatility of the stock return
- 5 Risk-free rate of interest

Money and Investing Determinants of Option Value



When there is an increase in:	Value of Call	Value of Put
Underlying stock price	increases	decreases
strike price	decreases	increases
Time to expiration	increases	increases
Volatility of stock return	increases	increases
Risk-free rate of interest*	increases	decreases

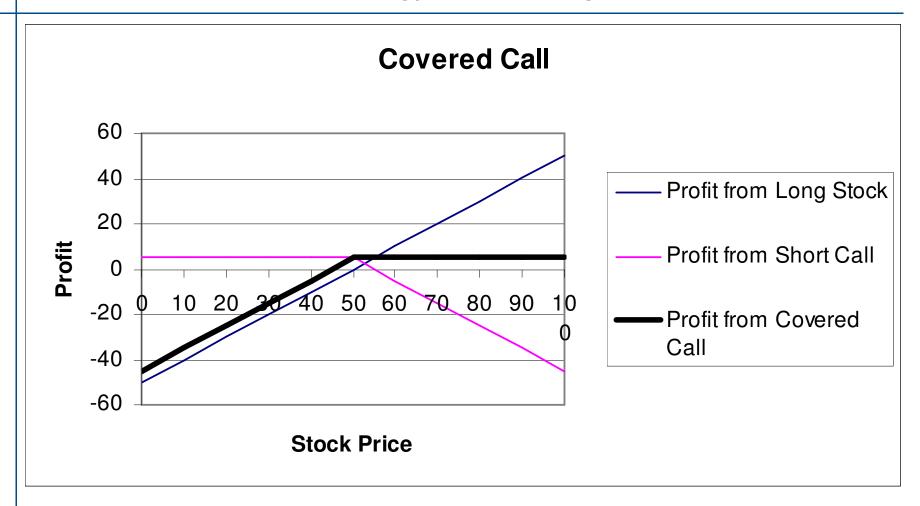
^{*} If interest rate increases, the present value of the strike price (that's what you're paying for when you buy an option) decreases; therefore value of call increases.

Covered Call - Strategy for "undisciplined sell, cash flow"

- → buy (or already own) the stock
- ¬Sell (write) call option on stock (collect premium)

Stock price	Profit from Long Stock	Profit from 50 Call Sold at \$5	Profit from Covered Call
\$25	(\$25)	\$5	(\$20)
\$30	(\$20)	\$5	(\$15)
\$35	(\$15)	\$5	(\$10)
\$40	(\$10)	\$5	(\$5)
\$45	(\$5)	\$5	\$0
\$50	\$0	\$5	\$5
\$55	\$5	\$0	\$5
\$60	\$10	(\$5)	\$5
\$65	\$15	(\$10)	\$5
\$70	\$20	(\$15)	\$5
\$75	\$25	(\$20)	\$5

Covered Call - Strategy for "undisciplined sell"



Money and Investing Example of a put option

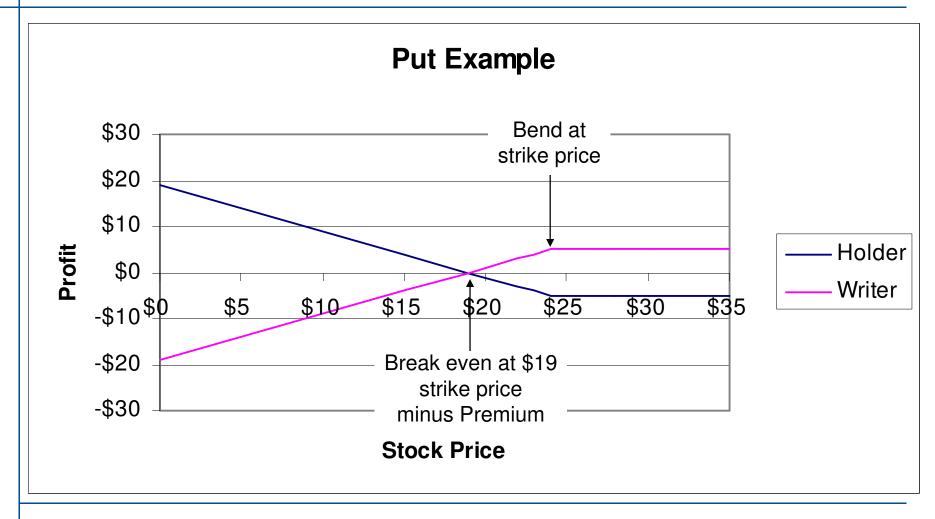


 Suppose a put option has an strike price of \$24 and a premium of \$5 (no time value or fees)

		Stock price	Call		
Strike price	Premium	at	holder's	Holder	Writer
		expiration	payoff		
\$30	\$4	\$0	\$0	-\$4	\$4
\$30	\$4	\$10	\$0	-\$4	\$4
\$30	\$4	\$15	\$0	-\$4	\$4
\$30	\$4	\$20	\$0	-\$4	\$4
\$30	\$4	\$25	\$0	-\$4	\$4
\$30	\$4	\$30	\$0	-\$4	\$4
\$30	\$4	\$35	\$5	\$1	-\$1
\$30	\$4	\$40	\$10	\$6	-\$6
\$30	\$4	\$45	\$15	\$11	-\$11
\$30	\$4	\$50	\$20	\$16	-\$16

Money and Investing profit (loss) of Put Option at Expiration







Protective Put - Strategy for "portfolio insurance"

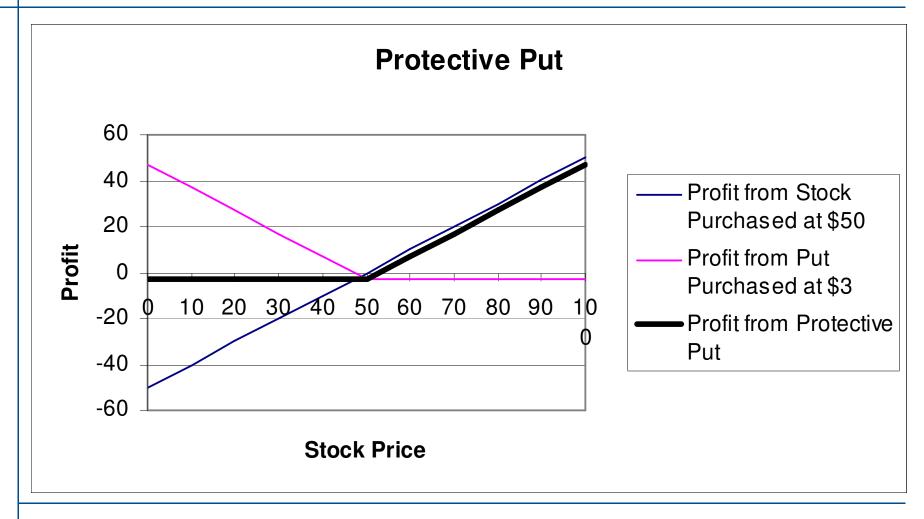
→ buy (or already own) the stock

→ buy put option on stock

Stock price	Profit from Stock Purchased at \$50	Profit from 50 Put Purchased at \$3	Profit from Protective Put
\$25	(\$25)	\$22	(\$3)
\$30	(\$20)	\$17	(\$3)
\$35	(\$15)	\$12	(\$3)
\$40	(\$10)	\$7	(\$3)
\$45	(\$5)	\$2	(\$3)
\$50	\$0	(\$3)	(\$3)
\$55	\$5	(\$3)	\$2
\$60	\$10	(\$3)	\$7
\$65	\$15	(\$3)	\$12
\$70	\$20	(\$3)	\$17
\$75	\$25	(\$3)	\$22



Protective Put - Strategy for "portfolio insurance"





Straddle - Strategy for profiting from high volatility

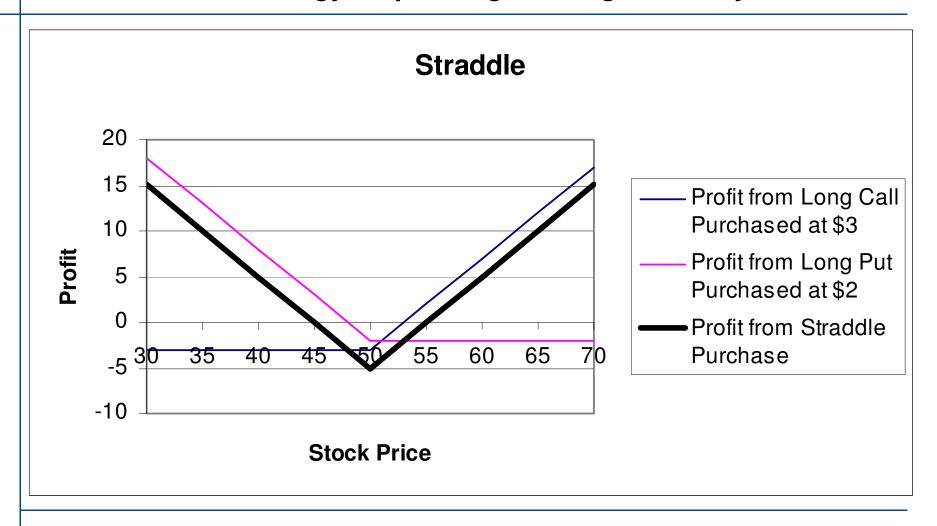
→ buy call, and

→ buy put with the same strike price and expiration date as the call option

Stock price	Profit from 50 Call Purchased at \$3	Profit from 50 Put Purchased at \$2	Profit from Straddle Purchase
\$30	(\$3)	\$18	\$15
\$35	(\$3)	\$13	\$10
\$40	(\$3)	\$8	\$5
\$45	(\$3)	\$3	\$0
\$50	(\$3)	(\$2)	(\$5)
\$55	\$2	(\$2)	\$0
\$60	\$7	(\$2)	\$5
\$65	\$12	(\$2)	\$10
\$70	\$17	(\$2)	\$15

SUL

Straddle - Strategy for profiting from high volatility



Money and Investing Bull Spread

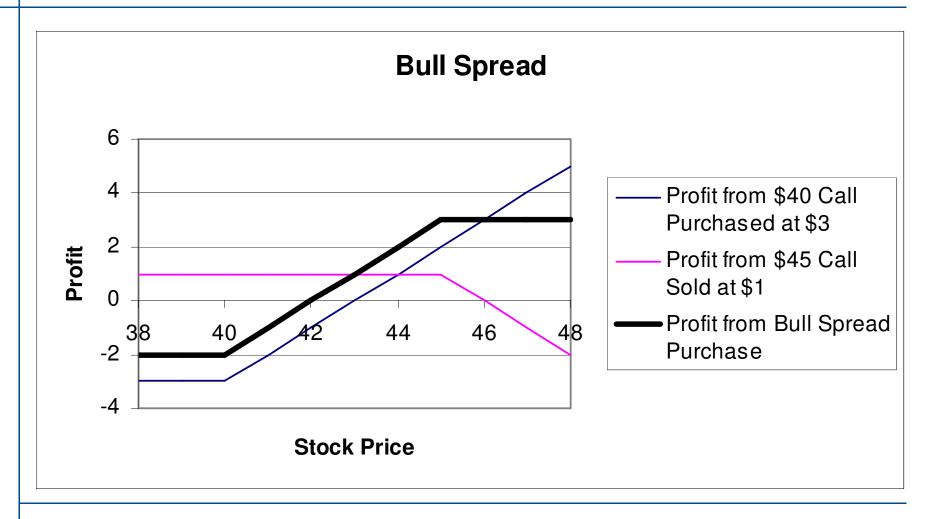


- → buy call option with a certain strike price, and
- ¬sell call option on the same stock with a higher strike price

Strike price	Profit from \$40 Call Purchased at \$3	Profit from \$45 Call Sold at \$1	Profit from Bull Spread Purchase
\$38	(\$3)	\$1	(\$2)
\$39	(\$3)	\$1	(\$2)
\$40	(\$3)	\$1	(\$2)
\$41	(\$2)	\$1	(\$1)
\$42	(\$1)	\$1	\$0
\$43	\$0	\$1	\$1
\$44	\$1	\$1	\$2
\$45	\$2	\$1	\$3
\$46	\$3	\$0	\$3
\$47	\$4	(\$1)	\$3
\$48	\$5	(\$2)	\$3

Money and Investing Bull Spread





Butterfly Spread - Strategy for profiting from low volatility

- → buy call with relatively low strike price, x1;
- → buy call with relatively high strike price, x3; and
- → write two calls with strike price half way between x1 and x3

Stock price	Profit from \$40 Call Purchased at \$12	Profit from two \$50 Call Sold at \$6	Profit from \$60 Call Purchased at \$3	Profit from Straddle Purchase
\$30	(\$12)	\$12	(\$3)	(\$3)
\$35	(\$12)	\$12	(\$3)	(\$3)
\$40	(\$12)	\$12	(\$3)	(\$3)
\$45	(\$7)	\$12	(\$3)	\$2
\$50	(\$2)	\$12	(\$3)	\$7
\$55	\$3	\$2	(\$3)	\$2
\$60	\$8	(\$8)	(\$3)	(\$3)
\$65	\$13	(\$18)	\$2	(\$3)

Butterfly Spread - Strategy for profiting from low volatility

