

**Income using credit spreads**

# Money and Investing

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- Income using credit spreads

Roger Manzolini

July 26, 2012

# Disclaimer

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- This presentation is the creation of Roger Manzolini and is to be used for informational use only
- Roger is not a certified financial planner nor a financial advisor of any kind, so use of this information is at your own risk
- None of the information provided should be considered a recommendation or solicitation to invest in, or liquidate, a particular security or type of security

# More Disclaimer

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- Options involve risk and are not suitable for all investors. All rights and obligations of options instruments should be fully understood by individual investors before entering any trade

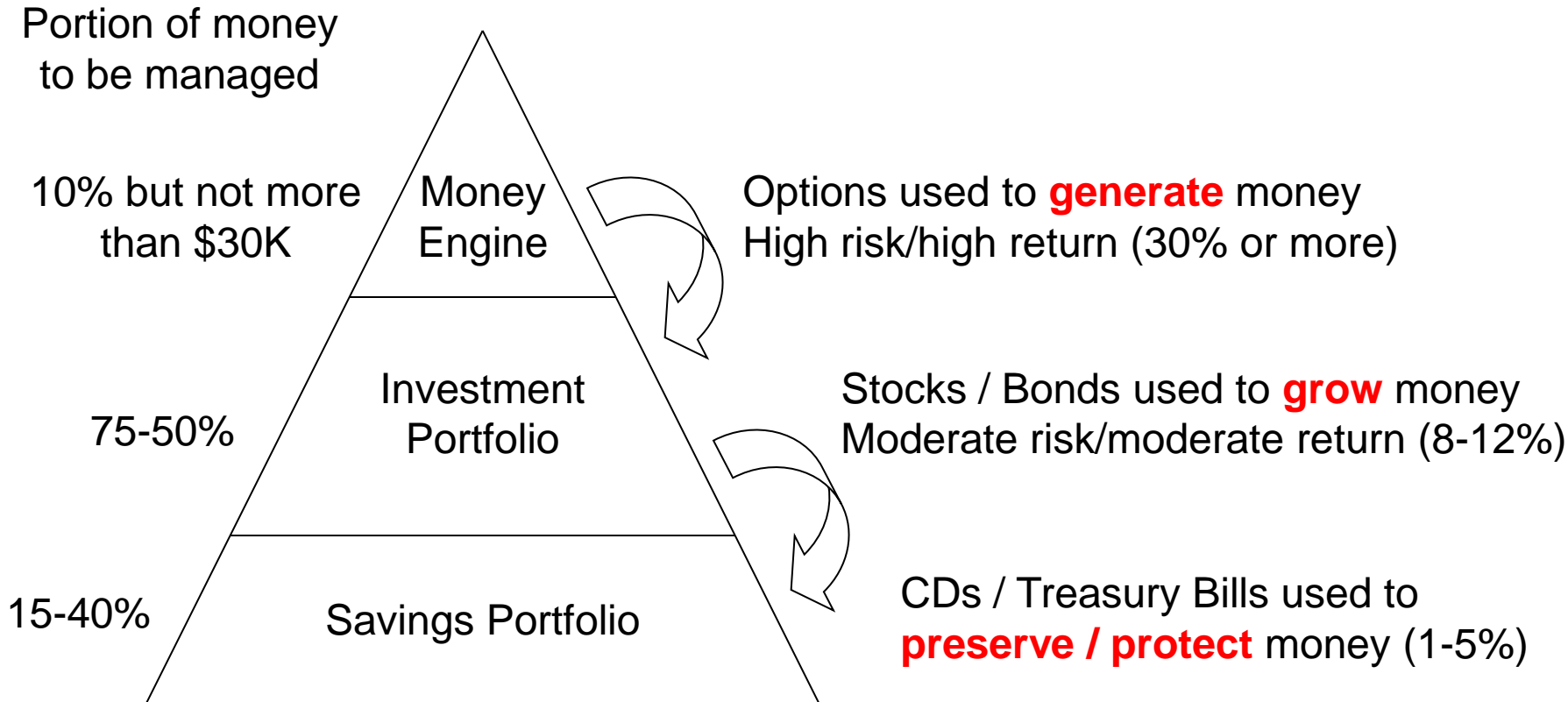
# Agenda

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- Introduction
- Covered calls revisited
- Credit spreads
- Trading Examples
- Actual Results
- Closing comments

# Introduction

## High Level Strategic View



# Introduction

## Market Composition

12	Sectors	Basic Materials	Capital Goods	Conglomerates	Consumer Cyclicals	Consumer Non-Cyclicals	Energy	Financial	Healthcare	Services	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	# Stocks in each Industry	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		92			83			201		19	272		
11		41			15					345	586		
12					8					57			
13										41			
14										102			
15										65			
16										46			
17										33			
18										26			
19										50			
20										11			
21										119			
22										16			
23										62			
24										57			
25										99			

# Introduction

## Basic premise

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- 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 that generate monthly income via:
  - Selling call options on stock that you already own
  - Selling and buying calls and/or puts for a net credit
    - credit spreads that we'll talk about today
- The risk is low and easily managed



# Money and Investing

## 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 3<sup>rd</sup> Friday of the month
- Exercising the option (option is assigned)
  - When the underlying stock is bought or sold

# Money and Investing

## Option Rights and Obligations

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

# Money and Investing

## Options

- Price = intrinsic value + time value
  - 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

# Other things to know

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- 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 call options grants the buyer the right to buy 500 shares of your stock at the strike price
- Most (65 to 90%) options expire worthless
  - This is very advantageous for option writers
  - I liken this to being the “house” at a casino
    - High probability (65 to 90%) for small gains
    - No probability (0%) for large wins

# Covered Calls

# Money and Investing

## Covered Call - Strategy for “undisciplined sell, cash flow”

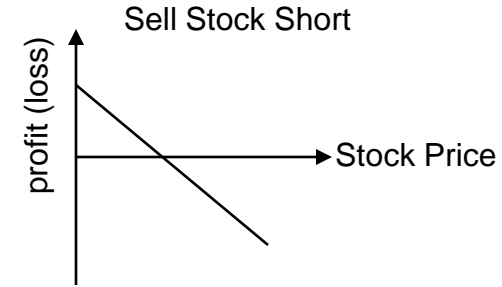
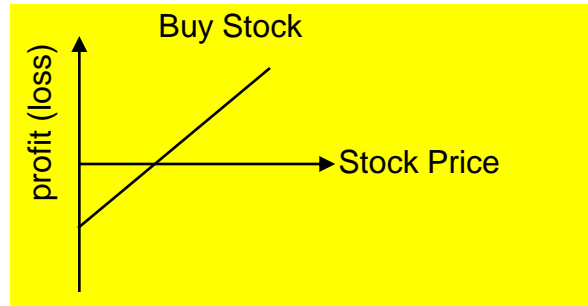
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- The plan
  - To improve your profit over just stock ownership by the premium received from the sold call
- Characteristics
  - Limited maximum profit – strike price minus the purchase price of the stock plus the net credit received
  - Unlimited loss – loss in stock value plus net credit
- Set up
  - Own or buy a stock
  - Sell a call option with a higher strike price than the purchase price of the stock

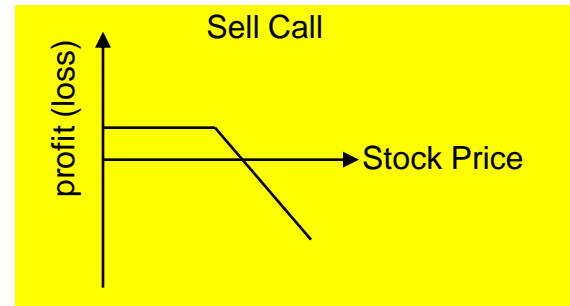
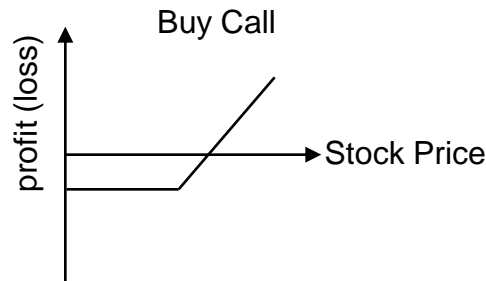
# Money and Investing

## Summary of profit (loss) Graphs

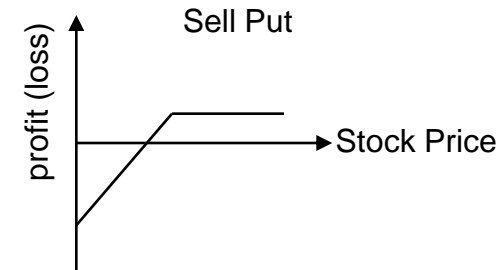
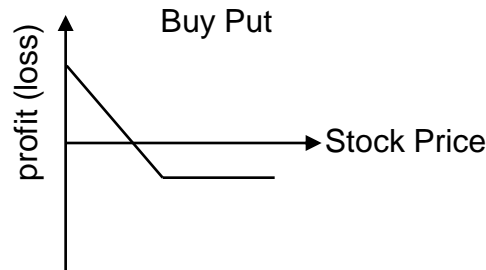
Stock Transactions



Call Option Transactions



Put Option Transactions



# Money and Investing

## Covered Call - Strategy for “undisciplined sell, cash flow”

### Typical Covered Call Set-up Example





# Possible Outcomes

## Covered Call

- 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 (forfeiting additional gain)
    - \$2 premium from the sold option
    - \$5 from the stock sale

WIN

WIN

WIN

# Credit Spreads

# What is a credit spread?

- When you sell a credit spread
  - you simultaneously sell one option and buy one option for a stock as a single transaction
  - The options are traded for the same expiration month, with different strike prices and are either both call options or both put options
  - You sell the more expensive option, and buy the cheaper option
- Resulting in a credit to your account

# Why sell credit spreads?

- Selling credit spreads allows you to trade options with:
  - Minimum risk
  - The deck stacked in your favor
  - Time decay working in your favor
  - Low margin requirements to make it possible for smaller investors
  - The opportunity to manage the outcome to still win if the trade begins to work against you
- To regularly make trades of 15% per month

# Money and Investing

## Credit Spreads - Strategy for “cash flow”

- For a bull market:



- Use bull credit spread, also called put credit spread
  - Sell out of the money put (for credit)
  - Buy further out of the money put (protection)

- For a bear market:



- Use bear credit spread, also called bear call spread
  - Sell out of the money call (for credit)
  - Buy further out of the money call (protection)

- For a sideways market:



- Use iron condors
  - Subject for another time

# Bull Credit Spreads

# Bull Credit Spread

## also called Put Credit Spread

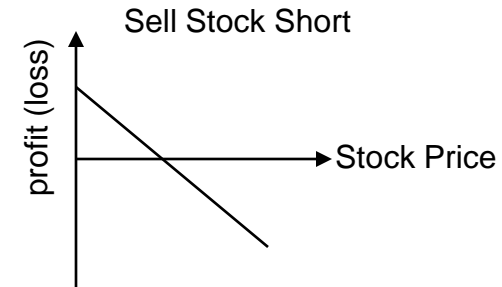
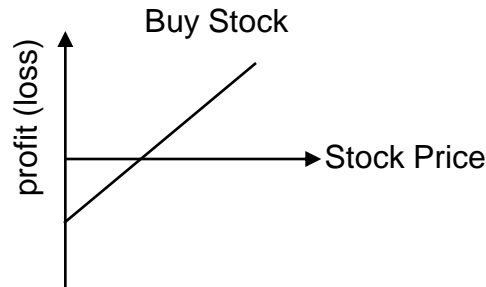
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- The plan
  - To anticipate and experience an upward move in the underlying stock. Have both options expire worthless. Retain the premium received.
- Characteristics
  - Limited maximum profit – net credit received
  - Limited maximum loss – difference in strike prices minus net credit
- Set up
  - Sell a put option
  - Buy a put option with a lower strike price (and lower cost)
- Comments
  - There is less risk to trade out of the money options

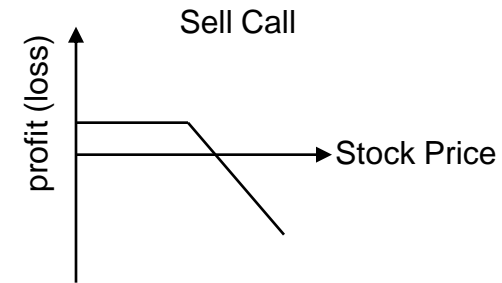
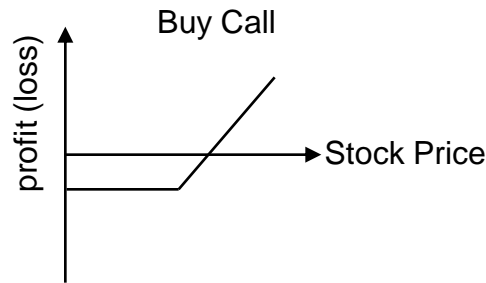
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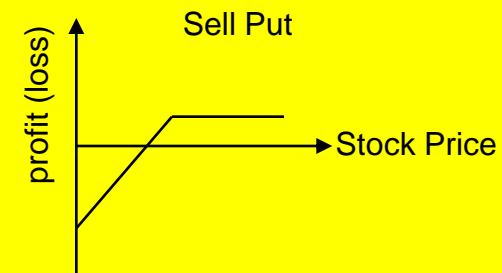
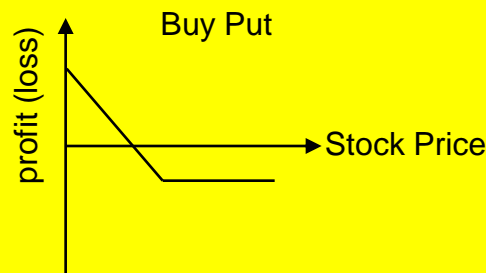
### Stock Transactions



### Call Option Transactions



### Put Option Transactions





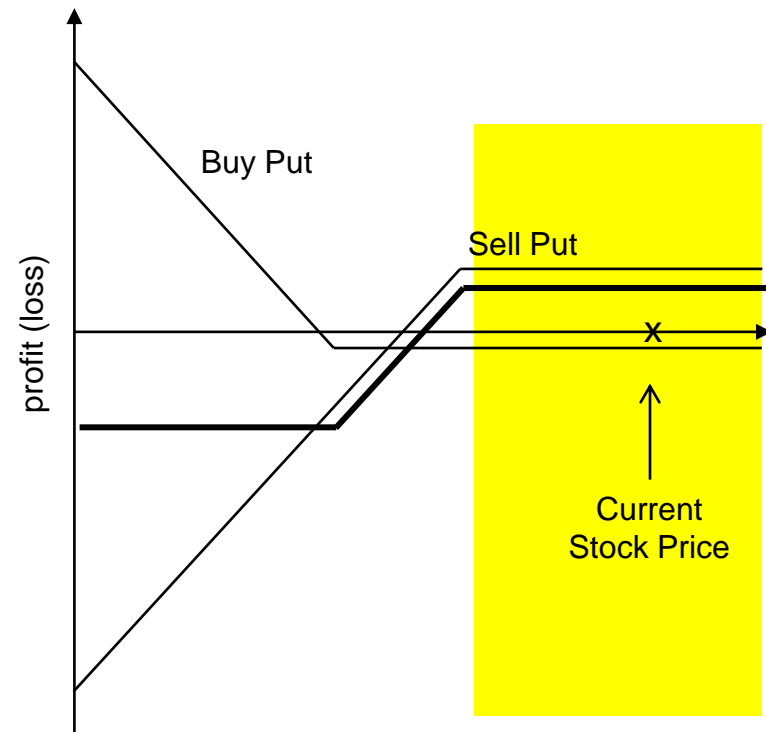
# Bull Credit Spread

also called Put Credit Spread

Sell out of the money put  
Buy further out of the money put  
Profit line

Maximum profit = Net credit

Maximum loss = difference in  
put strike prices – net credit



# Bull Credit Spread

## Example

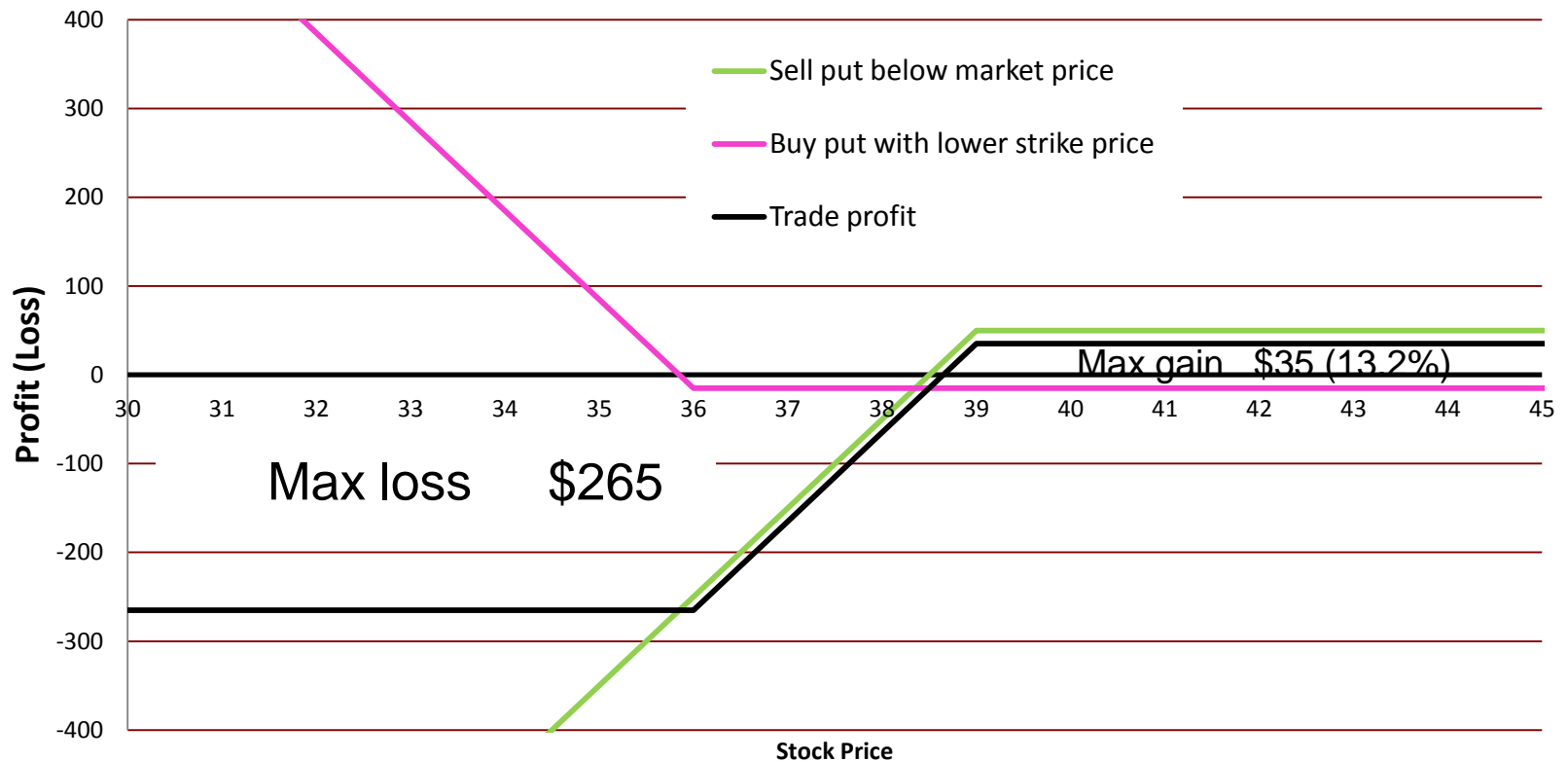
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- Example:
  - In mid June MRK trading at \$40.00
  - Sell MRK Aug \$39 put for \$0.50
  - Buy MRK Aug \$36 put for \$0.15
  
  - Collect \$35 ( $100 * (\$0.50 - \$0.15)$ ) for every contract
    - Yours to keep no matter what
  - Risk \$265 ( $100 * (\$39 - \$36) - \$35$ ) for every contract

# Money and Investing

## Credit Spread - Strategy for “cash flow”

### Bull Credit Spread Set-up



# Possible Outcomes

1. Stock remains above the strike price of \$39 **WIN**
  - Both options expire worthless; Your gain is the net credit received when the trade was set up
2. Stock goes down to \$36 or lower **lose**
  - If you did nothing, both options are assigned. You suffer the max loss of \$265
    - The difference in strike prices minus credit already received
      - $100 \times (39 - 36) - \$35$
3. Stock drops to below \$39, but above \$36 **lose**
  - Your short option is assigned, you are obligated to buy the stock at \$39
  - Your long option expires worthless

# Can you manage the outcome?

- Yes often enough, and no about once every 10 years
  - As the trade turns against you (i.e. stock begins to fall),  
Manage your trade by buying back the spread
    - This will limit your loss to near zero
- Thus outcomes 2. or 3. are prevented (not realized)
  - And you almost always win
  - The only time you lose is when:
    - You don't manage your trade, or
    - The market unexpectedly and dramatically drops rapidly without warning
      - This happens about once every 10 years; that is why you buy the protective put (limit your loss to \$265)

# Bear Credit Spreads

# Money and Investing

## Credit Spreads - Strategy for “cash flow”

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- For rising (bull) market:
  - Use bull credit spread, also called put credit spread
    - Sell out of the money put (for credit)
    - Buy further out of the money put (protection)
- For falling (bear) market:
  - Use bear credit spread, also called bear call spread
    - Sell out of the money call (for credit)
    - Buy further out of the money call (protection)
- For sideways (neutral) market:
  - Use iron condors
    - Subject for another time

# Bear Credit Spread

## also called Bear Call Spread

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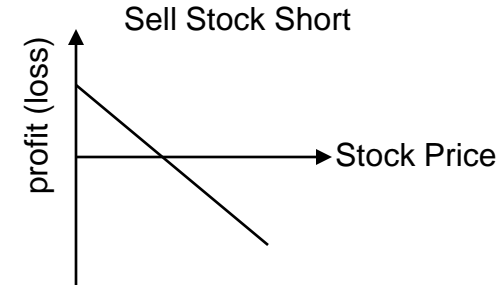
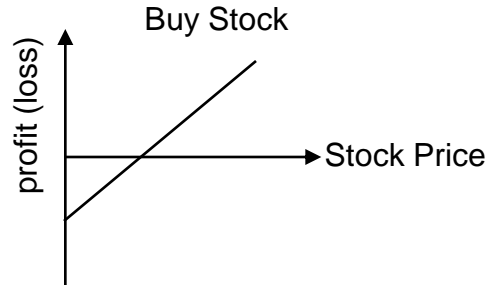
- The plan
  - To anticipate and experience a downward move in the underlying stock. Have both options expire worthless. Retain the premium received.
- Characteristics
  - Limited maximum profit – net credit received
  - Limited maximum loss – difference in strike prices minus net credit
- Set up
  - Sell a call option
  - Buy a call option with a higher strike price (and lower cost)
- Comments
  - Here too, trade out of the money options to manage risk



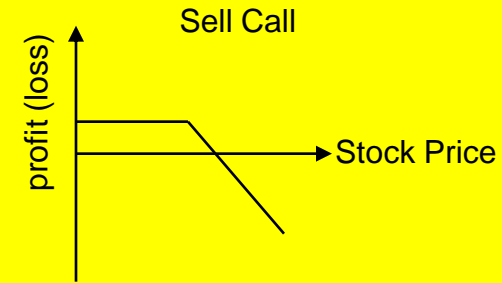
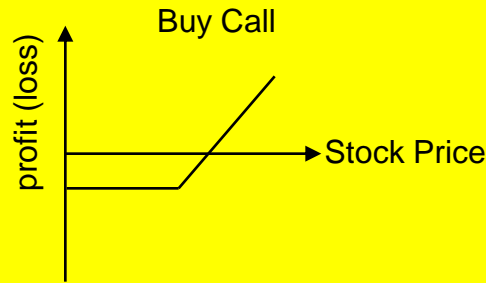
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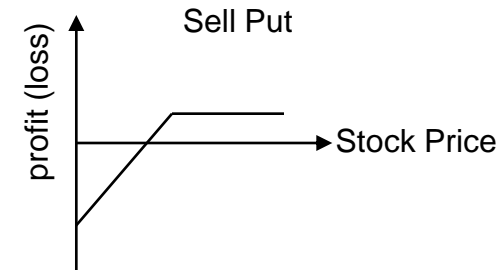
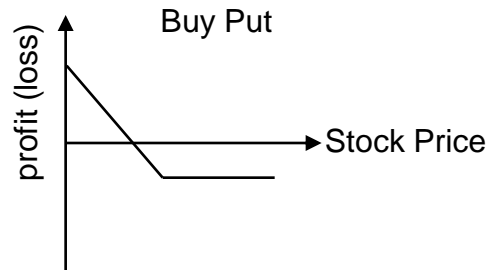
### Stock Transactions



### Call Option Transactions



### Put Option Transactions



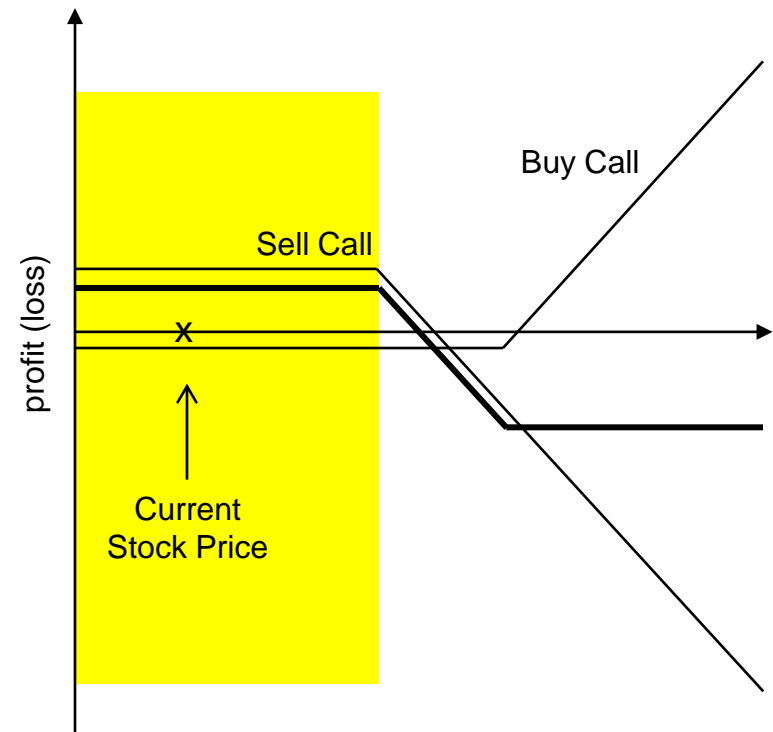
# Bear Credit Spread

also called Bear Call Spread

Sell out of the money call  
Buy further out of the money call  
Profit line

Maximum profit = Net credit

Maximum loss = difference in  
put strike prices – net credit



# Bear Credit Spread

## Example

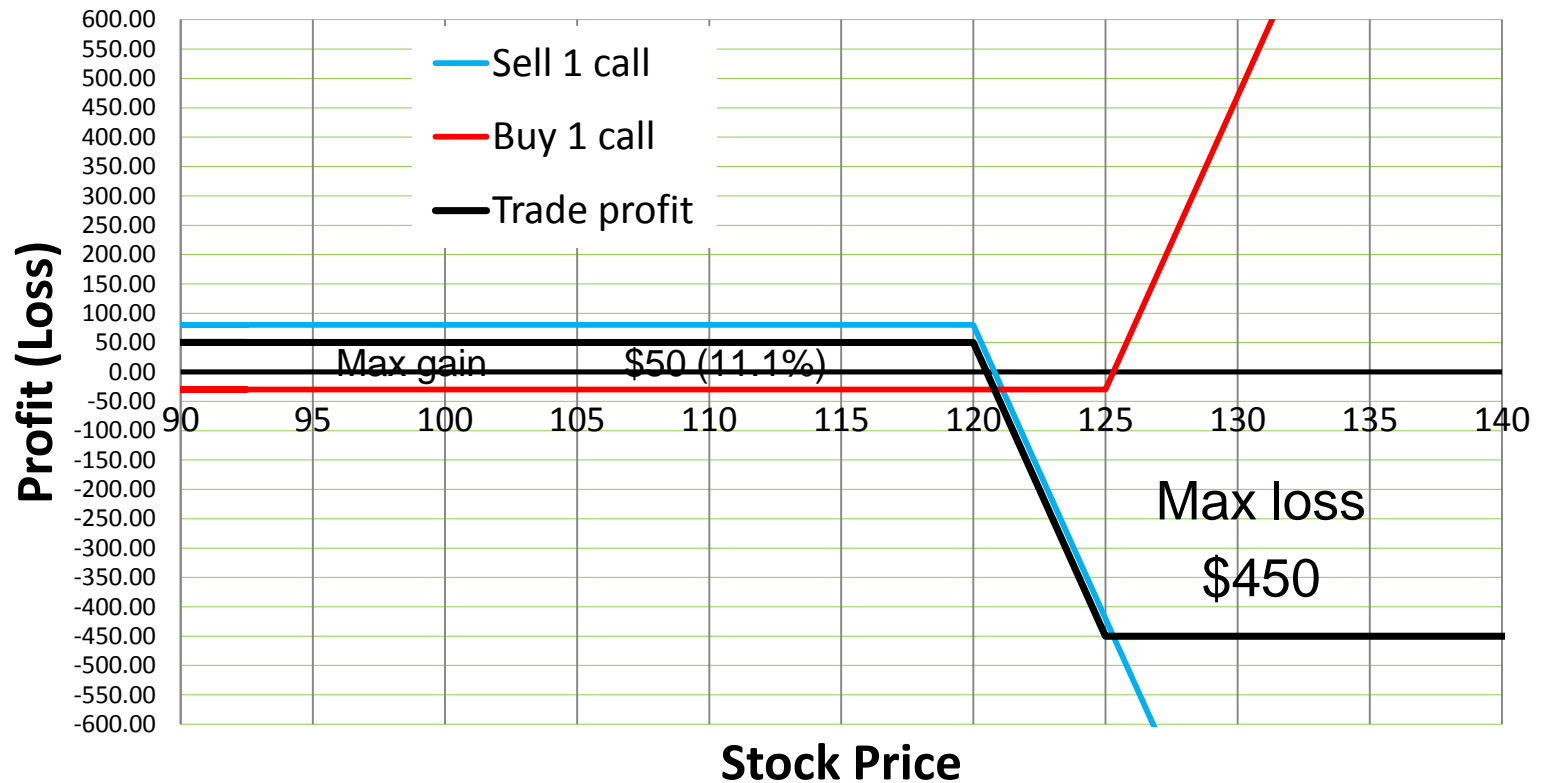
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- Example:
  - Near end of May Stock trading at \$100.00
  - Sell Stock June \$120 call for \$0.80
  - Buy Stock June \$125 call for \$0.30
  
  - Collect \$50 ( $100 * (\$0.80 - \$0.30)$ ) for every contract
    - Yours to keep no matter what
  - Risk \$450 ( $100 * (\$125 - \$120) - \$50$ ) for every contract

# Money and Investing

## Credit Spread - Strategy for “cash flow”

### Bear Credit Spread Set-up Example



# Possible Outcomes

1. Stock remains the same or rises up to just below the strike price of \$120 **WIN**
  - Your gain is the net credit received when the trade was set up
2. Stock goes up to \$125 or higher **lose**
  - If you do nothing, max loss is \$450
    - The difference in strike prices minus credit already received
      - $100 * (125 - 120) - \$50$
3. Stock rises to above \$120, but below \$125 **lose**
  - Your short option is assigned, you are obligated to sell the stock at \$120
  - Your long option expires worthless

# Can you manage the outcome?

- Yes:
  - As the trade turns against you (i.e. stock begins to rise),  
Manage your trade by buying back the spread
    - This will limit your loss to near zero
- Thus outcomes 2. or 3. are not realized
  - And you almost always win
  - The only time you lose is when:
    - You don't manage your trade, or
    - The underlying security dramatically rises rapidly without warning
      - This seldom happens, but that is why you buy the protective call just in case it does

# Cookbook

# Step by Step Overview

- **Step One:** Pick your stock
  - Complete a trend analysis on the stock
  - Look ahead to make sure that there are no earnings dates or dividends due, as these both can have an effect on your trend
  - Scan the news on the stock, so you have feel for what is happening with the company
  - Expensive stocks provide better returns for each trade

***DO NOT PROCEED UNTIL YOU HAVE  
A GOOD TREND IN PLACE!***



# Step by Step Overview

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- **Step Two:** On the Tuesday (or later) following a given month's expiration Friday
  - Prepare to sell a credit spread for the next month's expiration (no more than 30 days out)

# Step by Step Overview

- **Step Three:** Choose which spread to sell. To do this, you need to use an option probability calculator using:
  - The current stock price
  - The number of days to expiration
  - Implied Volatility of the stock (your broker software should have this information with the stock price)
  - The price of your closer option as the first target
  - The further out option as the second target
  - Choose an option where probability is >80%
    - Bearish Call Spreads: ending below lowest target
    - Bullish Put Spreads: ending above the highest target

*80% chance of winning*

# Step by Step Overview

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- **Step Four: Sell your Credit Spread**
  - Depending on your broker, you will need a certain margin per spread that you sell (typically <\$1,000)
  - For a \$5,000 account
    - you could sell 5 spreads for one stock (not recommended), or
    - one spread for each of 5 stocks (diversity reduces risk)
  - Retain a little cash in case you need to do a spread repair

# Step by Step Overview

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- **Step Five:** Calculate your profit
  - You do this by calculating the Return on Margin
  - If your margin is \$1,000, and you sell your spread for \$150, you have a ROM of 15%
  - Remember, this is the monthly return
    - not a bad return!

# Step by Step Overview

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- **Step Six:** Monitor your stock
  - You can do this quickly each day. You do not need to worry unless the stock comes very close to or even touches your closest option (the one you sold)
  - As long as it does not cross this line, you can pretty much ignore what happens to the price
  - Remember, there is only a 20% chance of the line being crossed
- **Step Seven:** When your option contracts expire worthless
  - do it again next month

# What if ?

- **If your trend holds:** As the stock gains or drops in price, your Credit Spread will drop in value very quickly, boosted by time decay
  - As the spread gets really cheap, you can buy it back and sell another one closer in
  - usually you can buy the spread back for much less than you sold it for, and then sell a new spread for another credit
  - for a fast dropping or growing stock, you can sometimes do this three or four times in a month, resulting in huge gains

**Good**

# What if ?

- **If the stock stagnates** and goes neither up nor down
  - sit it out till expiration, where your Credit Spread will expire worthless - you keep your profit
  - Sometimes a good trick is to buy back your spread and sell a new one 2-3 days before expiration
    - Time Decay will have reduced the value of your spread, and the chances of the stock making a big jump in two days is minimal, so you can squeeze out more profit

*Good*

# What if ?

- **If the stock moves against you**
  - No problem, monitor it, but as long as it does not get to your closest option strike price (i.e. the one you sold), it will still expire worthless - you keep your profit
- **If your stock hits your break even line** (which is just inside your closest option, the one you sold)
  - Do a Credit Spread Repair
    - Buy the Credit Spread back, and immediately sell another Credit Spread
    - You can either buy the same kind of spread (call or put) or if the trend has definitely changed, buy the opposite. It is mostly possible to do this for no loss, or even a little gain

*OK, manageable*



# Credit Spread Repair

- EXAMPLE OF CREDIT SPREAD REPAIR
  - **Step 1.** In a bearish trend, you have sold a call credit spread
    - XYZ is at \$100
    - SOLD XYZ June 120/125 Call Spread@ 0.80. Net Credit \$80
  - **Step 2.** The trend reverses, and the stock hits \$120. Trade a repair as follows
    - BUY XYZ June 120/125 Call Spread@1.50. Net Debit \$150
    - Sell XYZ June 135/140 Call Spread@0.80 Net Credit \$80
  - **RESULT**
    - Total Credit (from both trades) = \$160
    - Total Debit (from buy back)=\$150
    - Total Net = \$10.

# Credit Spread Repair

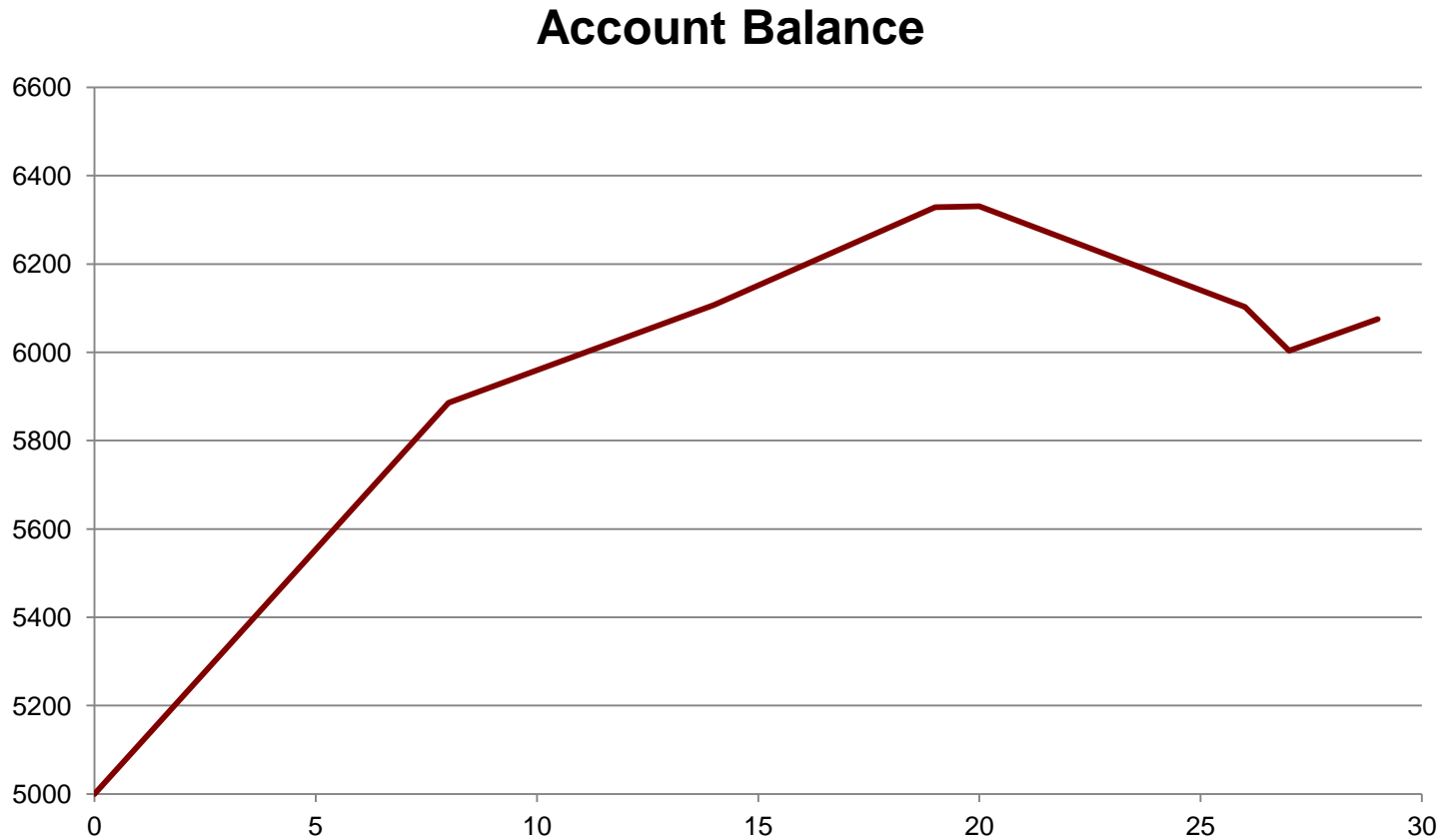
- EXAMPLE OF CREDIT SPREAD REPAIR
  - **Alternate Step 2.** The trend reverses, and the stock hits \$120. Trade a repair as follows
    - BUY XYZ June 120/125 Call Spread @ 1.50. Net Debit \$150
    - Sell XYZ June 135/140 Put Spread @ 0.80 Net Credit \$80
  - **RESULT**
    - Total Credit (from both trades) = \$160
    - Total Debit (from buy back)=\$150
    - Total Net = \$10

# Results

# Actual Results – Trades (2008)

Date	Day	Stock	Price	Action	Spread	Call / Put	Price	Trade Credit	Com & Fees	Net credit	Balance
	0					Totals for the month		1365	290	1075	5000
23-May	1	BIDU	335.01	Sold	380/390	C	1.65	165	10	155	5155
23-May	1	ISRG	274.75	Sold	310/320	C	1.35	135	10	125	5280
23-May	1	GOOG	549.46	Sold	590/600	C	1.9	190	10	180	5460
23-May	1	CME	464.20	Sold	510/520	C	1.42	142	10	132	5592
23-May	1	RTP	524.46	Sold	570/580	C	2.1	210	10	200	5792
30-May	8	GOOG	585.80	Bought	590/600	C	-4.45	-445	10	-455	5337
30-May	8	GOOG	585.80	Sold	610/620	C	2.7	270	10	260	5597
30-May	8	CME	430.30	Bought	510/520	C	-0.28	-28	10	-38	5559
30-May	8	CME	430.30	Sold	470/480	C	1.75	175	10	165	5724
30-May	8	RTP	483.25	Bought	570/580	C	-0.58	-58	10	-68	5656
30-May	8	RTP	483.25	Sold	520/530	C	2.4	240	10	230	5886
5-Jun	14	CME	402.54	Bought	470/480	C	-0.15	-15	10	-25	5861
5-Jun	14	CME	402.54	Sold	420/430	C	1.32	132	10	122	5983
5-Jun	14	RTP	475.17	Bought	520/530	C	-0.43	-43	10	-53	5930
5-Jun	14	RTP	475.17	Sold	500/510	C	1.87	187	10	177	6107
10-Jun	19	ISRG	275.09	Bought	310/320	C	-0.18	-18	10	-28	6079
10-Jun	19	ISRG	275.09	Sold	290/300	C	0.9	90	10	80	6159
11-Jun	20	RTP	441.95	Bought	500/510	C	0.27	27	10	17	6176
11-Jun	20	RTP	441.95	Sold	490/500	C	1.65	165	10	155	6331
17-Jun	26	CME	419.41	Bought	420/430	C	-6.45	-645	10	-655	5676
17-Jun	26	CME	419.41	Sold	450/460	C	2.27	227	10	217	5893
18-Jun	27	BIDU	332.64	Bought	380/390	C	0	0	10	-10	5883
18-Jun	27	BIDU	332.64	Sold	350/360	C	0.72	72	10	62	5945
18-Jun	27	GOOG	562.38	Bought	610/620	C	-0.03	-3	10	-13	5932
18-Jun	27	GOOG	562.38	Sold	580/590	C	0.82	82	10	72	6004
20-Jun	29	BIDU	334.81	Bought	350/360	C	-0.23	-23	10	-33	5971
20-Jun	29	BIDU	334.81	Sold	340/350	C	0.8	80	10	70	6041
20-Jun	29	GOOG	546.43	Bought	580/590	C	-0.08	-8	10	-18	6023
20-Jun	29	GOOG	546.43	Sold	570/580	C	0.62	62	10	52	6075

# Actual Results – Account Balance



# Actual Results – Analyzed Summary

- Started month with \$5,000
- Traded 5 different ‘stocks’
- Best trade: \$658 65.8%
- Worst trade: -\$82 -8.2%
- Total trade credit for the month: \$1365
- Total commission and fees for the month: \$ 290
- Total net credit for the month: \$1075
- Monthly results % 21.5%

BIDU	244	24.4
ISRG	177	17.7
GOOG	78	7.8
CME	-82	-8.2
RTP	658	65.8
	1075	

# Actual Results - Comments

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- This was a good month
  - There were two bad 'stocks' (one of which went really bad)
  - One exceptional 'stock'
  - One out of the five 'stocks' needed a repair
  - There were 29 trades, of which two went wrong
  - That is a 93% success rate
    - Vs the 80% expected
  - 21.5% return for the month
    - Much better than the plan of 15%

# Conclusion

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- It doesn't actually matter too much what happens to your stock
  - You have an 80% chance of keeping your profit upon expiration
  - If a worst case scenario occurs (20% chance), you can enact a repair and come out with nothing lost except broker fees
- With this approach
  - you don't need to lose money
  - You have a maximum of 20% chance of one of your trades coming out a net zero
  - You have an 80% or greater chance of any of your trades earning 15% or more each month.



# Money and Investing

## Parting Thoughts

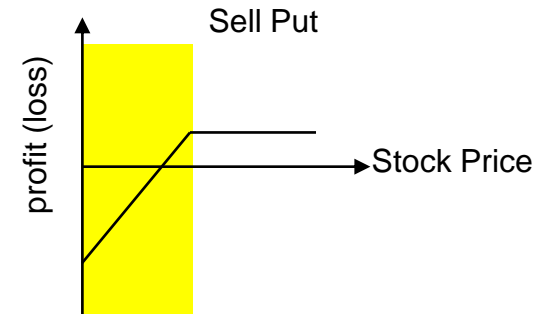
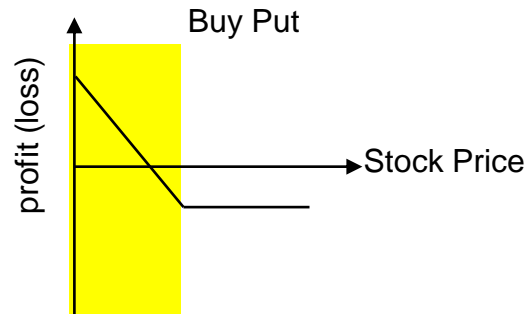
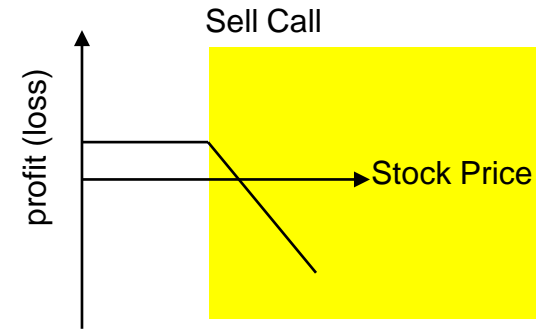
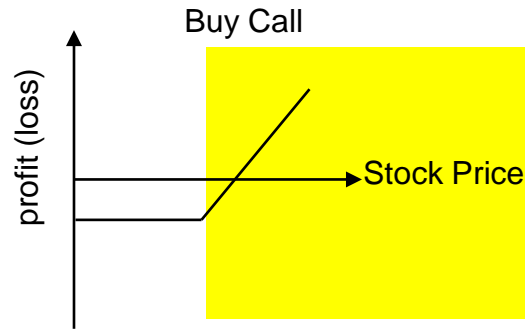
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- What does it take?
  - Some money; \$5,000, more is better
  - An options trading account
  - The desire and time to continue to educate yourself
  - Time to manage your trades
  - Positive attitude
    - Belief in yourself that you can do it
  - Separation of emotion from trading decisions
  - Learning from your mistakes
  - Tenacity to continue

**The End**

# Money and Investing

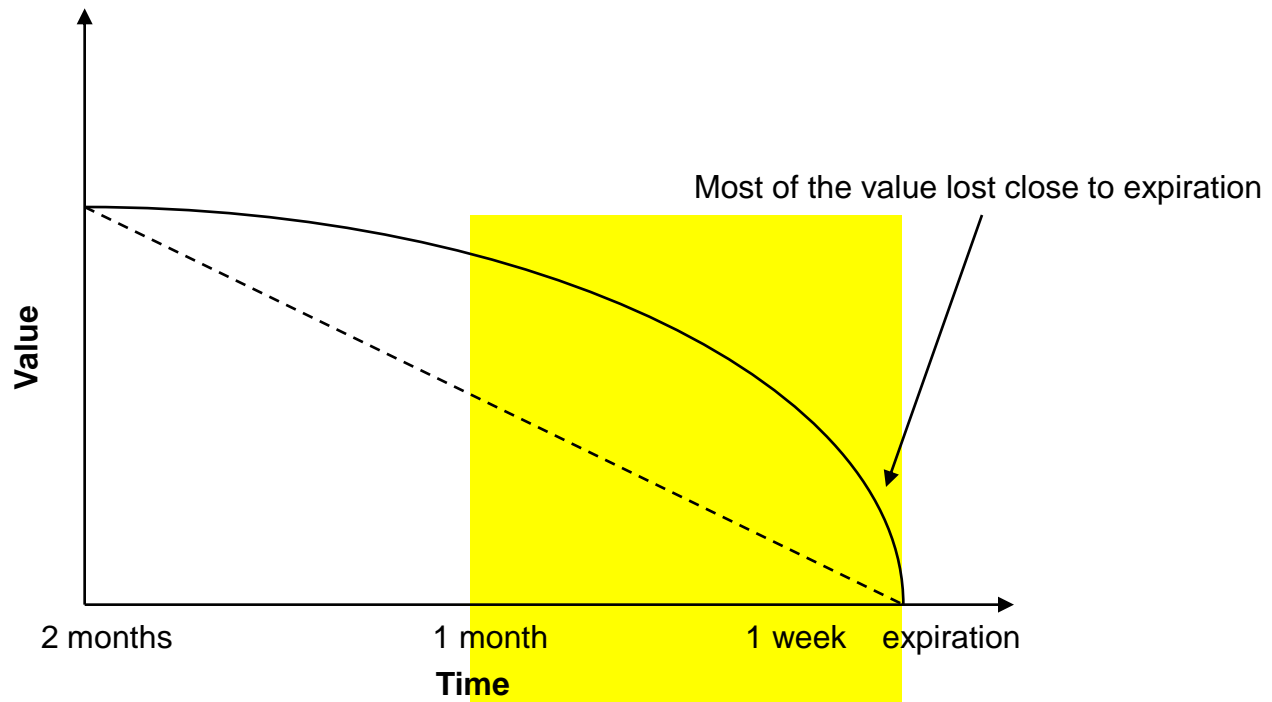
## Intrinsic value – ‘in the money value’



Return

# Money and Investing

## Time value



Return

# When You Sell Put Options, What Happens on Options Expiration Day?

**SKIP**

- Only two things can occur at expiration
  - the price of the stock is below the chosen strike price or
  - the price of the stock is at or above the chosen strike price
- If the stock finishes below the strike price
  - the option buyer will “exercise” his right to the contract and
  - you will be required to fulfill your end of the agreement – which means you have to buy the stock you wanted at the price you wanted
- If the stock finishes at or above the strike price
  - the trade is over and the option expires worthless
  - the option buyer walks away with nothing
  - you get to keep the upfront cash with no further obligations

# When You Buy Put Options, What Happens on Options Expiration Day?

**SKIP**

- Only two things can occur at expiration
  - the price of the stock is below the chosen strike price or
  - the price of the stock is at or above the chosen strike price
- If the stock finishes below the strike price
  - you will “exercise” your right to the contract and
  - the option seller will be required to fulfill his end of the agreement – which means he has to buy the stock at the strike price
- If the stock finishes at or above the strike price
  - the trade is over and the option expires worthless
  - you walk away with nothing
  - the option seller get to keep the upfront cash with no further obligations



# Tips when selling put options

- Only sell put options on stocks you want to own
- Only sell enough contracts that you can cover
  - If you normally trade in 500-share blocks, then only sell five option contracts
- If you're uncomfortable at any time during a trade, unwind the trade
  - buy back the put options you've sold
- Know ahead of time what your potential total outlay will be if obligated to buy the shares
  - No surprise endings

# Guidelines (per Ken Trester)



- Don't buck the trend
- Select stocks with low price volatility
- Find overpriced options
- Diversify
- Write options that are at least 15% out of the money
- Write options with next month expirations
- Write options against Treasury Bills
- Set a bailout point and use it
- Maintain a strict stock/options surveillance program