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# Advanced Option Strategies for the Active Investors



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# S&P/TSX 60 VIX Index - VIXC



- Plotting the volatility the S&P/TSX 60
- A measure for volatility for Canadian stocks.



# Periods of Low Implied Volatility



- Cheap cost to open straddles and strangles.
- Only effective if anticipating higher volatility.
- You have to stay closer to at-the-money in collars as there is little premium on the covered call component.



# Periods of High Implied Volatility



- Ideal environment for Debit Spreads.
- Expensive for opening straddles and strangles.
- Must consider Butterflies and Condors to reduce cost for expensive premium.





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# Call Debit Spread



# Call Debit Spread

- Also called the Bull Call Spread
- Buy 1 Call
- Sell 1 Call at a higher strike price.



# Bull Call Spread



- Either the outlook is:
  - Moderately bullish
  - Opening positions in very volatile markets.
- Short option offsets the cost of the trade and reduces the break even point of the position.
- Reduces the potential loss if the underlying stock moves adversely.
- Lose the potential to profit beyond sold strike.





# Contract Selection



- Choose an expiration date that allows the stock enough time to make the anticipated move.
- At-the-money and in-the-money strikes are more conservative but priced higher.
- Out-of-the-money strikes are less expensive, but require a much more significant move higher to be profitable.



# Example Using Goldcorp

G is at \$46.05. Investor has bullish outlook.



# Bull Call Spread on Goldcorp



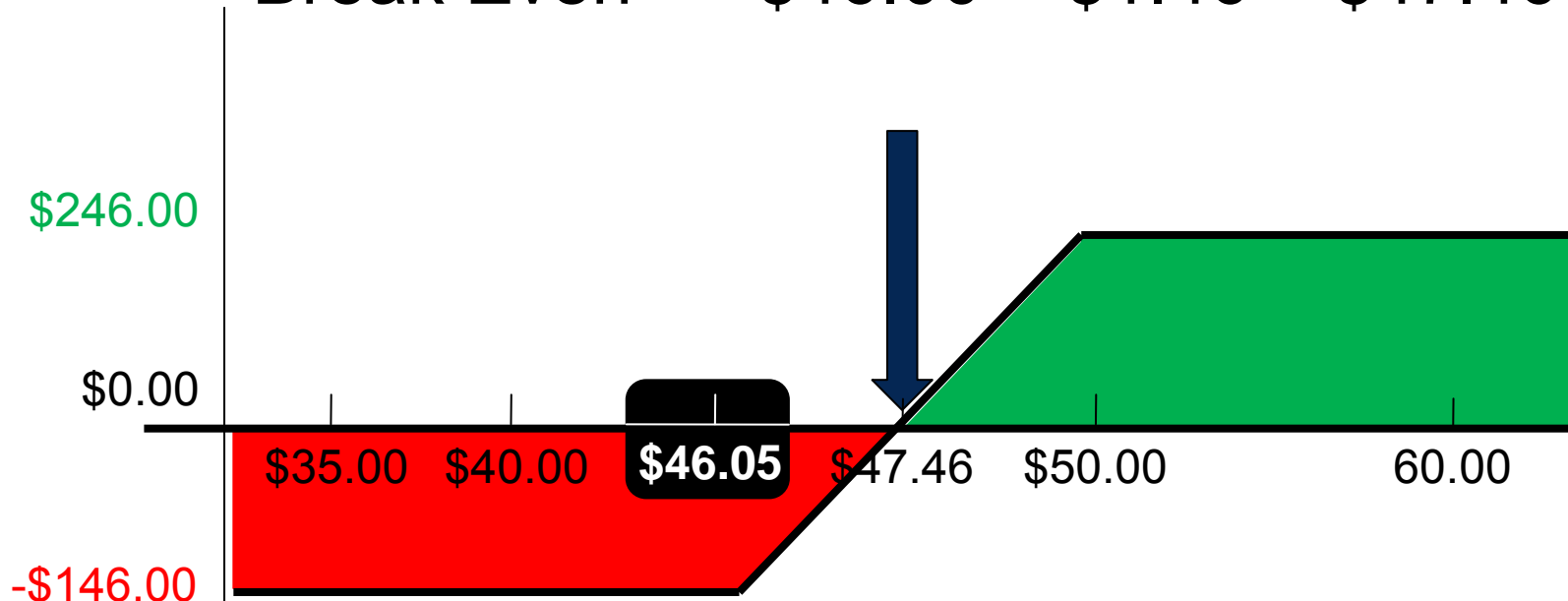
- G at \$46.05 (November 25, 2010)
- January expiration (57 days till expiration)
- **Buy** 1, January \$46.00 Call - **\$2.13**(ask)
- **Sell** 1, January \$50.00 Call - **\$0.67**(bid)
- Net cost basis **\$1.46**



# Risk Graph



$$\text{Break Even} = \$46.00 + \$1.46 = \$47.46$$



Maximum Profit : \$254.00

Maximum Loss : \$146.00



# Profit/Loss



Price at expiration	Long \$46 Call P/L	Short \$50 Call P/L	Net Spread P/L
\$60.00	\$1187.00	-\$933.00	\$254.00
\$55.00	\$687.00	-\$433.00	\$254.00
\$50.00	\$187.00	\$67.00	\$254.00
\$47.46	-\$67.00	\$67.00	\$0.00
 <b>START</b> \$46.00	-\$213.00	\$67.00	-\$146.00
\$45.00	-\$213.00	\$67.00	-\$146.00
\$40.00	-\$213.00	\$67.00	-\$146.00



# Example Using Goldcorp





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# Put Debit Spread



# Put Debit Spread

- Also called the Bear Put Spread.
- Buy 1 Put.
- Sell 1 Put at a lower strike price.





# Bear Put Spread



- Outlook is moderately bearish.
- Short option offsets the cost of the trade and reduces the break even point of the position.
- Reduces the potential loss if the underlying moves adversely.
- Lose downside profit potential beyond sold strike.



# Example Using Goldcorp

G is at \$46.05. Investor has bearish outlook.



# Put Debit Spread on Goldcorp

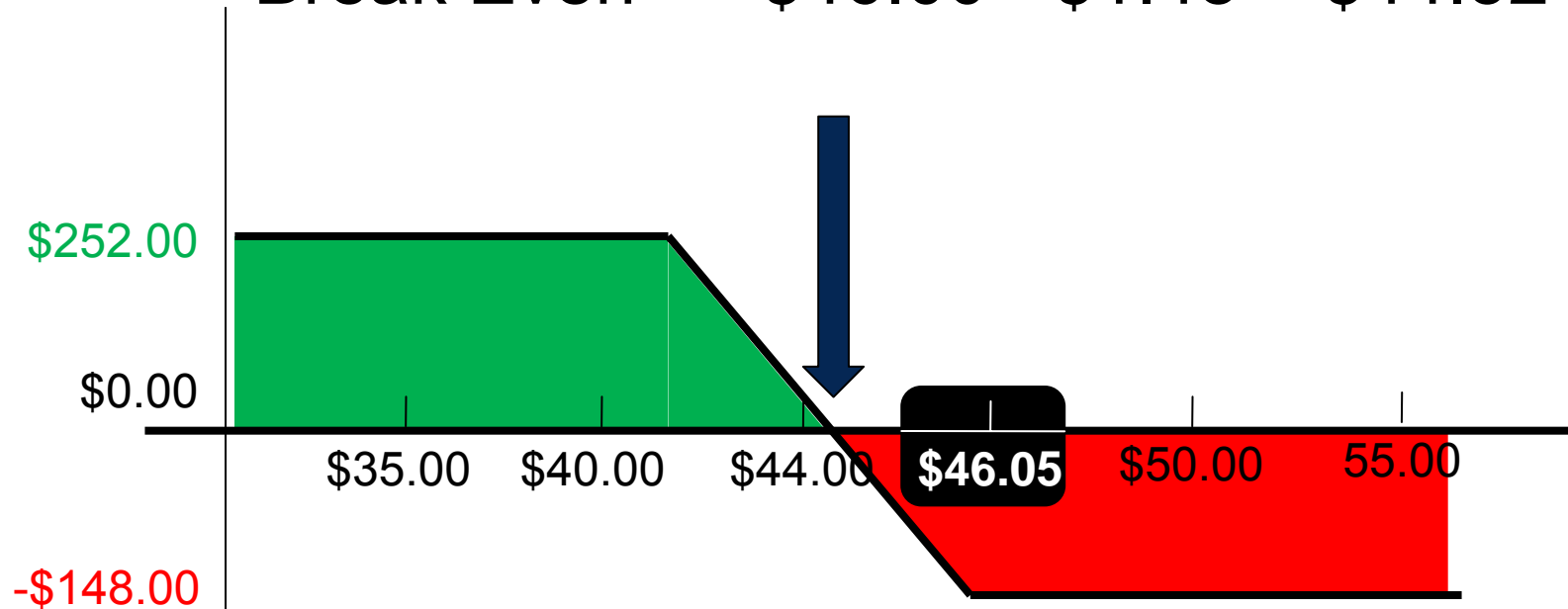


- G at \$46.05 (November 25, 2010)
- January expiration (57 days)
- **Buy** 1, January \$46.00 Put - **\$2.06**(ask)
- **Sell** 1, January \$42.00 Put - **\$0.58**(bid)
- Net cost basis **\$1.48**



# Risk Graph

$$\text{Break Even} = \$46.00 - \$1.48 = \$44.52$$



Maximum Profit : \$252.00

Maximum Loss : \$148.00



# Profit / Loss



Price at expiration	Long \$46 Put P/L	Short \$42 Put P/L	Net Spread P/L
\$55.00	-\$206.00	\$58.00	-\$148.00
\$50.00	-\$206.00	\$58.00	-\$148.00
\$46.00	-\$206.00	\$58.00	-\$148.00
\$44.52	-\$58.00	\$58.00	\$0.00
\$42.00	\$194.00	\$58.00	\$252.00
\$40.00	\$394.00	-\$142.00	\$252.00
\$35.00	\$894.00	-\$642.00	\$252.00



# Example Using Goldcorp





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# Long Strangles and Straddles Trading Volatility



# Long Straddles and Strangles



- Requires the purchase of a call and a put simultaneously.
- Both are volatility trades.
- Anticipating a sharp move in either direction.
- Higher break even as a result of the two premiums being purchased.





# Long Straddle

- Same underlying security.
- Buy a call and buy a put.
- Same strike.
- Same expiration.



# Straddle Example

- Stock XYZ is trading at \$40.00 a share.
- Investor expects that the stock will be considerably volatile.
- Investor wants to capitalize on a big move irrespective of the direction.
- 6 month \$40.00 Call is Asking \$3.00
- 6 month \$40.00 Put is Asking \$3.00



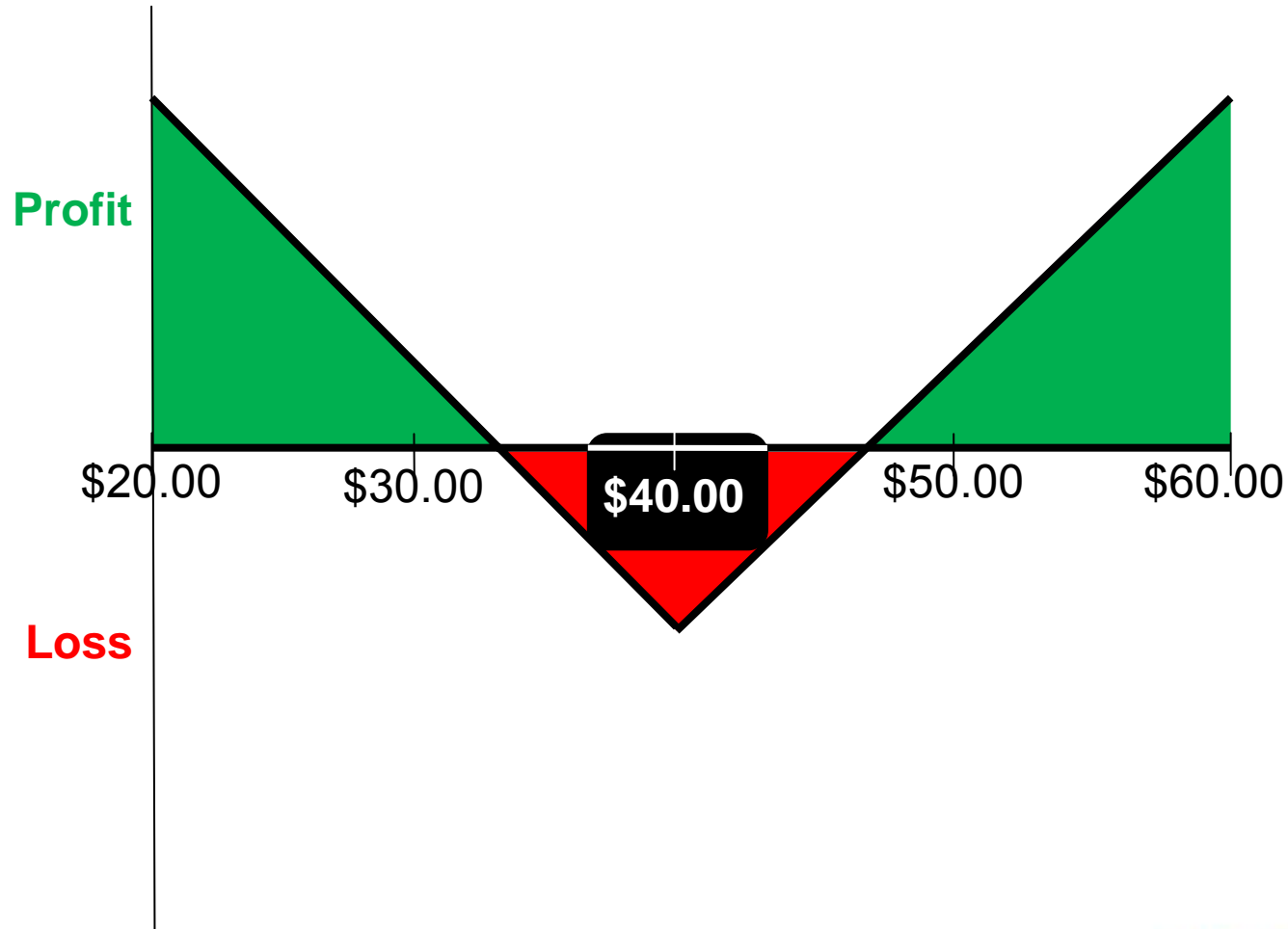
# Straddle Example



- Buy \$40.00 Call at \$3.00
- Buy \$40.00 Put at \$3.00
- Net cost is \$6.00
- The “\$40.00 straddle” cost \$600.00 representing the maximum risk.
- Break even on the trades is below \$34.00 and above \$46.00



# Straddle Example



# Straddle Example



Stock Price	Long \$40 Call P/L	Long \$40 Put P/L	Net Profit P/L
\$60.00	\$17.00	-\$3.00	\$14.00
\$50.00	\$7.00	-\$3.00	\$4.00
\$45.00	\$2.00	-\$3.00	-\$1.00
\$40.00	-\$3.00	-\$3.00	-\$6.00
\$35.00	-\$3.00	\$2.00	-\$1.00
\$30.00	-\$3.00	\$7.00	\$4.00
\$20.00	-\$3.00	\$17.00	\$14.00



# Example Using Goldcorp



G is at \$46.05.

Investor anticipates a potential volatile move.



# Example Using Goldcorp



- RIM is at \$46.05 (November 25, 2010)
- Buy April \$46.00 Call at \$3.55 (140 days)
- Buy April \$46.00 Put at \$3.45 (140 days)
- Net cost is \$7.00
- The “\$46.00 straddle” cost \$700.00 representing the maximum risk.
- Break even on the trade is below \$39.00 and above \$53.00



# Example using Goldcorp

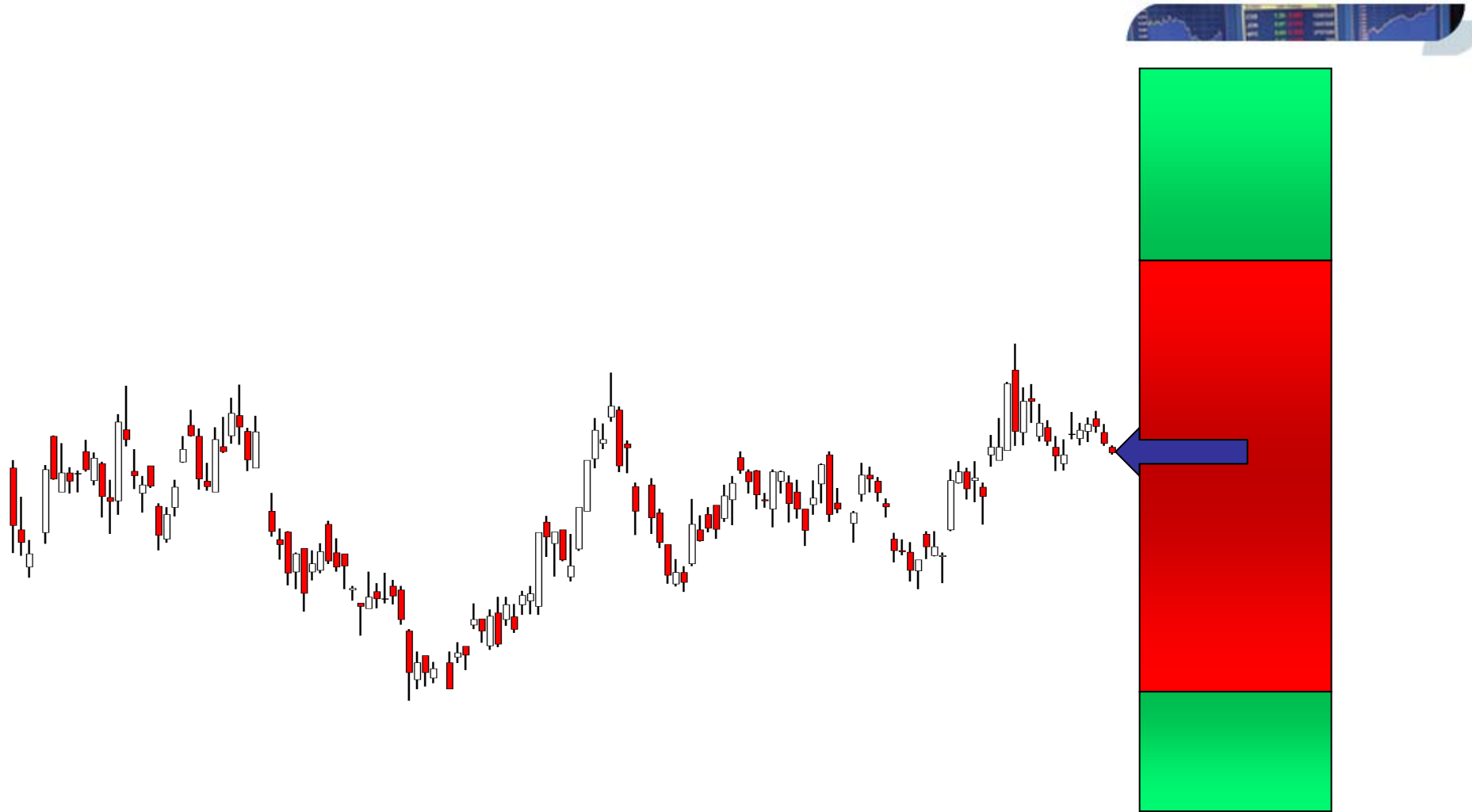


Stock Price	Long \$54 Call P/L	Long \$54 Put P/L	Net Profit P/L
\$60.00	\$10.45	-\$3.45	\$7.00
\$55.00	\$5.45	-\$3.45	\$2.00
\$50.00	\$0.45	-\$3.45	-\$3.00
\$46.00	-\$3.55	-\$3.45	-\$7.00
\$40.00	-\$3.55	\$2.55	-\$1.00
\$35.00	-\$3.55	\$7.55	\$4.00
\$30.00	-\$3.55	\$12.55	\$9.00





# Example Using Goldcorp



# Long Strangle



- Same underlying security.
- Buy a call and buy a put.
- The put is at a lower strike price than the call.
- Same expiration.



# Strangle Example



- Stock XYZ is trading at \$40.00 a share.
- Investor expects that the stock will be considerably volatile.
- Investor wants to capitalize on a big move irrespective of the direction.
- 6 month \$44.00 Call is Asking \$1.25
- 6 month \$36.00 Put is Asking \$1.25



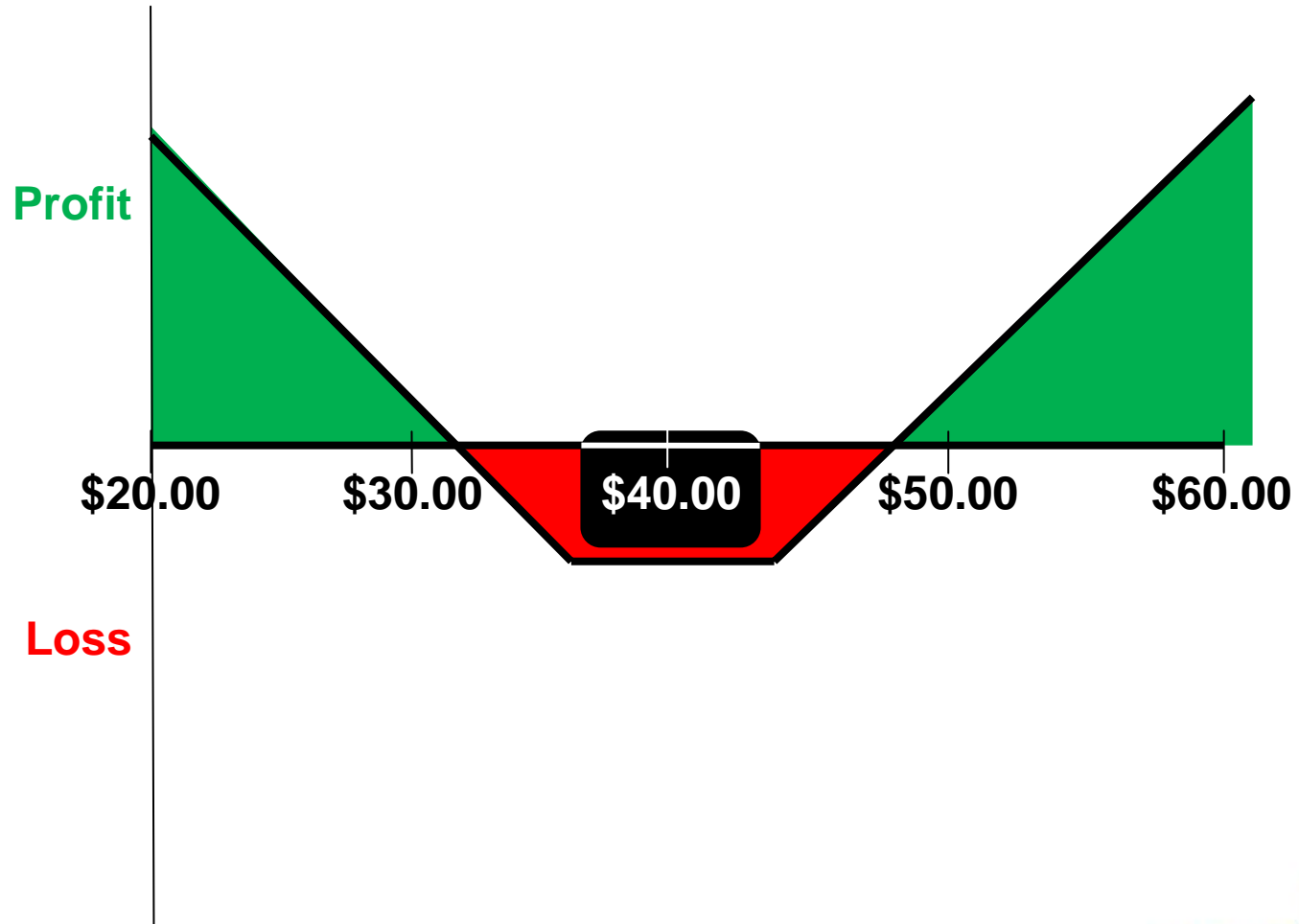
# Strangle Example



- Buy \$44.00 Call at \$1.25
- Buy \$36.00 Put at \$1.25
- Net cost is \$2.50
- The “\$36/\$44 strangle” cost \$250.00 representing the maximum risk.
- Break even on the trades is below \$33.50 and above \$46.50



# Strangle Example



# Strangle Example



Stock Price	Long \$44 Call P/L	Long \$36 Put P/L	Net Profit P/L
\$55.00	\$9.75	-\$1.25	\$8.50
\$50.00	\$4.75	-\$1.25	\$3.50
\$45.00	-\$0.25	-\$1.25	-\$1.50
\$40.00	-\$1.25	-\$1.25	-\$2.50
\$35.00	-\$1.25	-\$0.25	-\$1.50
\$30.00	-\$1.25	\$4.75	\$3.50
\$25.00	-\$1.25	\$9.75	\$8.50



# Example Using Goldcorp

G is at \$46.05

Investor anticipates a potential volatile move.



# Example Using Goldcorp

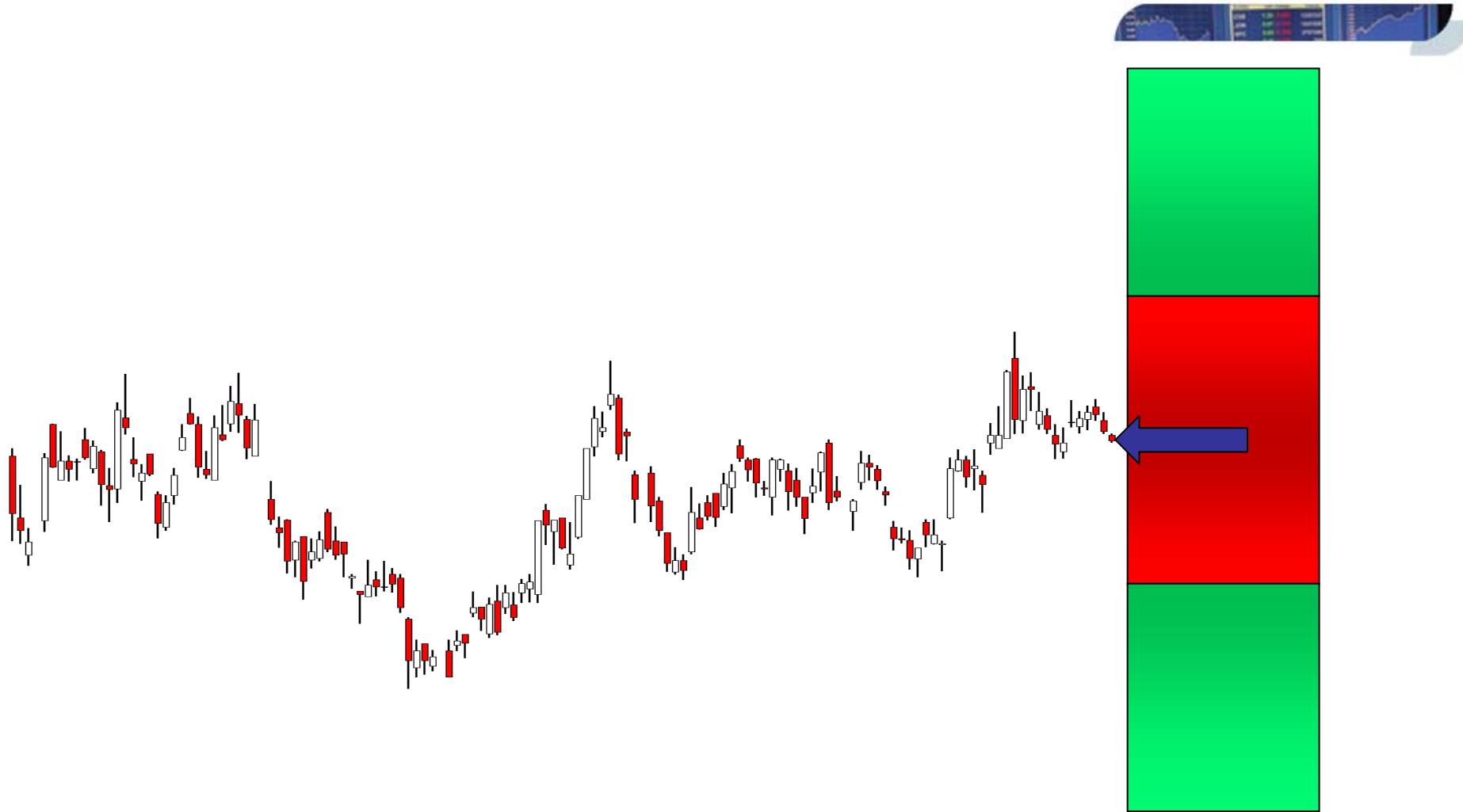


- G is at \$46.05 (November 25, 2010)
- Buy April \$48.00 Call at \$2.75
- Buy April \$44.00 Put at \$2.54
- Net cost is \$5.29
- The “\$44/\$48 strangle” cost \$529.00 representing the maximum risk.
- Break even on the trades is below \$40.71 and above \$51.34





# Example Using Goldcorp



# Summary



- Anticipating a sharp move in either direction.
- Profit from a sharp move regardless of which direction it goes.
- Have a higher break even as a result of the two premiums being purchased.



# Ratio Straddles



- Same underlying security.
- Have a deliberate bias higher or lower.
- Buy 1 call for every 2 puts – bearish bias.
- Buy 2 calls for every 1 put – bullish bias.
- Same strike.
- Same expiration.



# Ratio Straddle Example



- Stock XYZ is trading at \$40.00 a share.
- Investor expects that the stock will be considerably volatile and probably crash.
- Investor wants to capitalize on a big drop in the stock, but wants to build in a hedge.
- 3 month \$40.00 Call is Asking \$1.50
- 3 month \$40.00 Put is Asking \$1.50



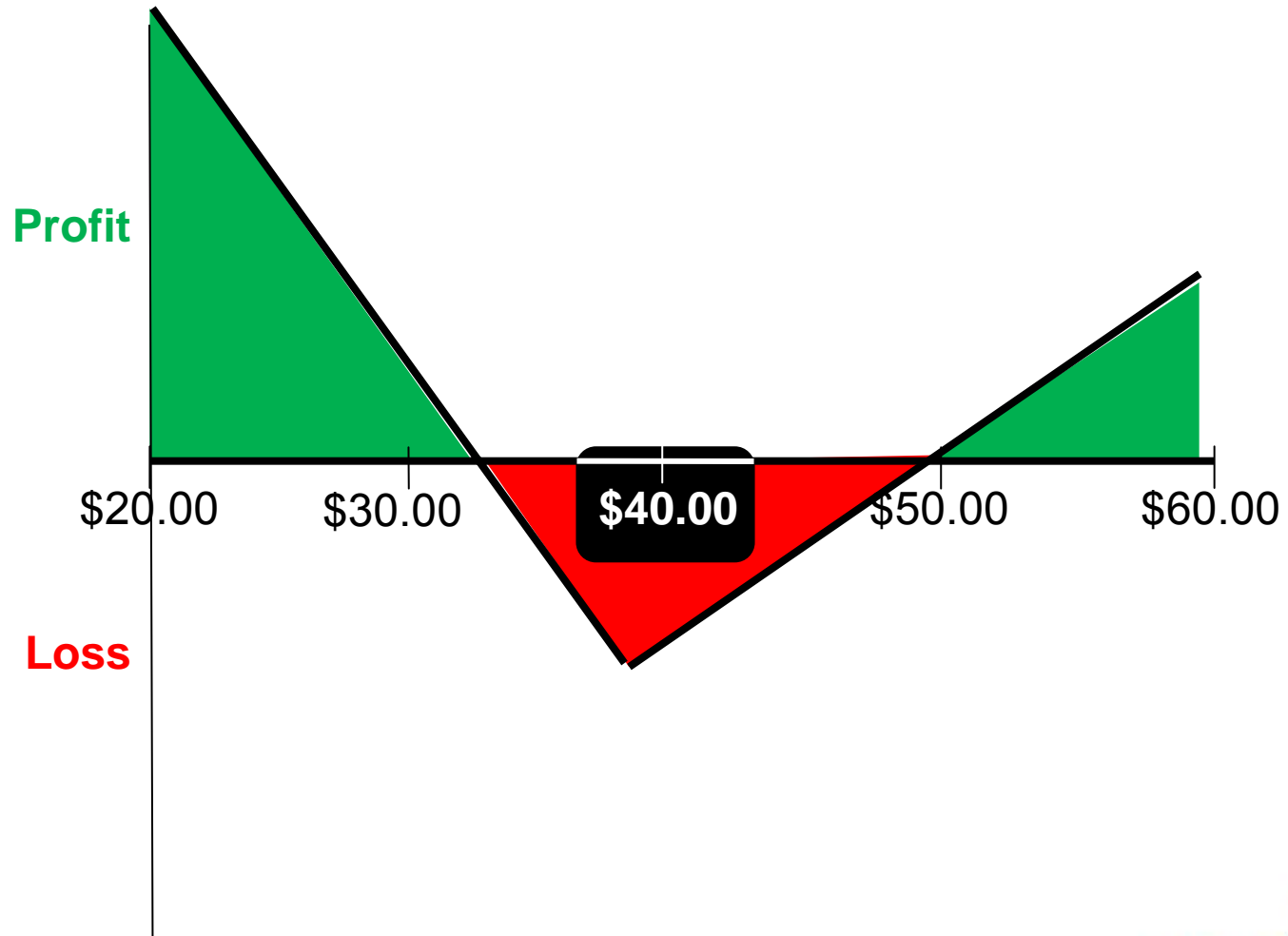
# Ratio Straddle Example



- Buy **1** \$40.00 Call at \$1.50
- Buy **2** \$40.00 Put at \$1.50
- Net cost is \$4.50
- The “\$40.00 ratio straddle” cost \$450.00 representing the maximum risk.



# Ratio Straddle Example



# Ratio Straddle Example



Stock Price	Long \$40 Call P/L	Long \$40 Put P/L x2	Net Profit P/L
\$55.00	\$13.50	-\$3.00	\$10.50
\$50.00	\$8.50	-\$3.00	\$5.50
\$45.00	\$3.50	-\$3.00	\$0.50
\$40.00	-\$1.50	-\$3.00	-\$4.50
\$35.00	-\$1.50	\$7.00	\$5.50
\$30.00	-\$1.50	\$17.00	\$15.50
\$25.00	-\$1.50	\$27.00	\$25.50





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# Collars

## Putting your trade on a leash





# The Collar Strategy



- Also known as the Hedge Wrap
- Creating a position that limits the downside and the upside.
- Ideal for existing positions that have already moved up and only have a marginal upside left.
- Involves a combination of two strategies.



# The Collar Strategy



- The first component involves a covered call.
- We generate a cash flow for capping our upside.



# The Collar Strategy



- The second component involves buying a protective put.
- We use the proceeds from the covered call to buy the protection.



# The Collar Strategy



- When do we use this strategy?
- If you are optimistic on the investment but you have short-term concerns.
- The concerns can be technical or fundamental.
- What makes the strategy effective is that it is volatility neutral.



# Collar Example



- Stock XYZ is trading at \$40.00 a share.
- Investor likes the stock but has short-term concerns.
- Investor wants to buy the stock and collar it.
- 1 month \$42.00 Call is Bidding \$0.25
- 1 month \$38.00 Put is Asking \$0.25



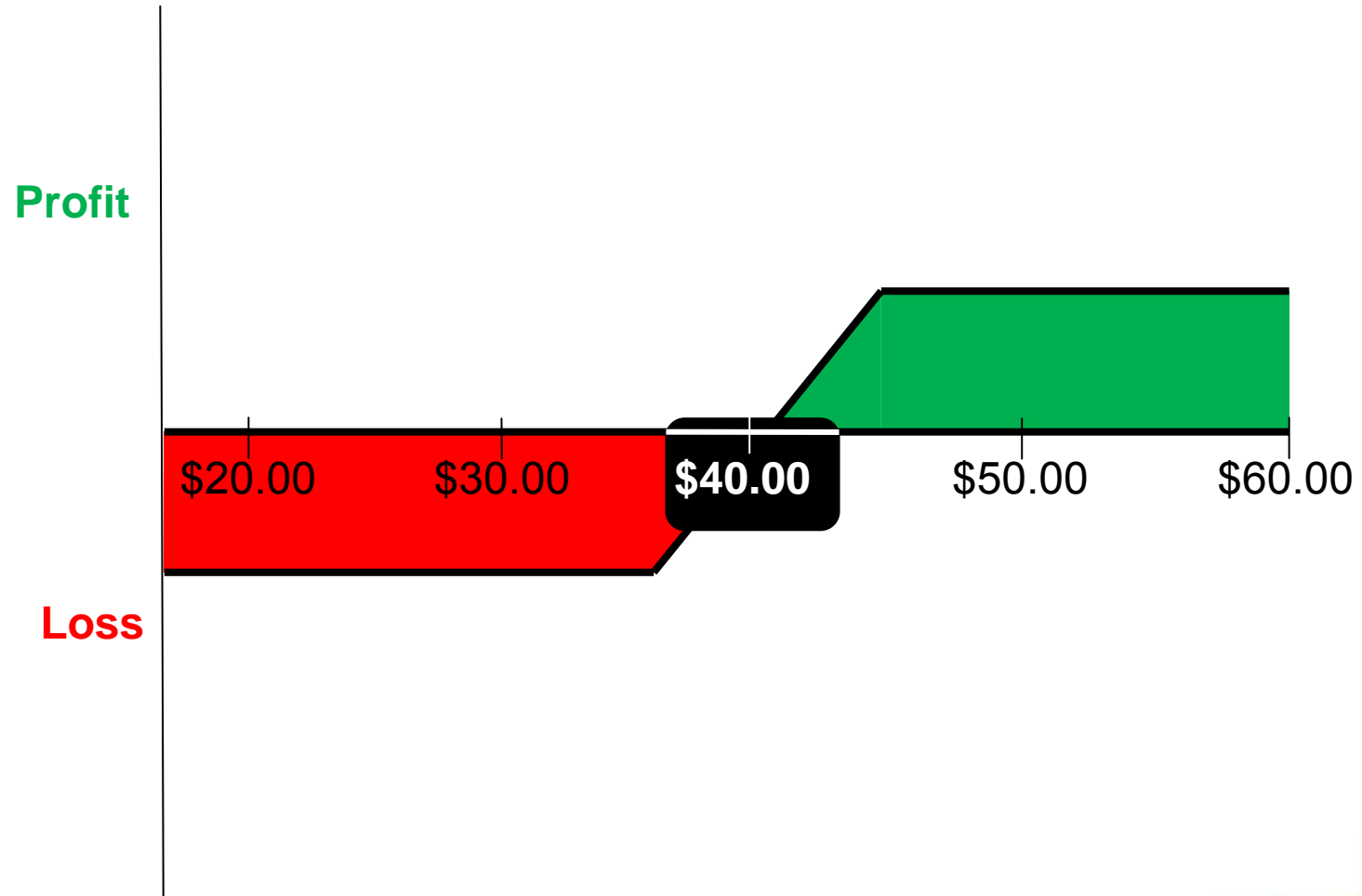
# Collar Example



- Buy 100 shares at \$40.00.
- Sell the \$42.00 Covered Call for \$0.25.
- Buy the \$38.00 Put for \$0.25.
- Net cost is \$40.00 for the stock and \$0.00 cost for the collar.
- Downside risk to \$38.00.
- Upside potential to \$42.00.



# Collar Example



# Collar Example



Stock Price	Stock P/L	Short \$42 Call P/L	Long \$38 Put P/L	Net Profit P/L
\$50.00	\$10.00	-\$7.75	-\$0.25	\$2.00
\$45.00	\$5.00	-\$2.75	-\$0.25	\$2.00
\$42.00	\$2.00	\$0.25	-\$0.25	\$2.00
\$40.00	\$0.00	\$0.25	-\$0.25	\$0.00
\$38.00	-\$2.00	\$0.25	-\$0.25	-\$2.00
\$35.00	-\$5.00	\$0.25	\$2.75	-\$2.00
\$30.00	-\$10.00	\$0.25	\$7.75	-\$2.00





# The Calendar Collar



- Creating a position that limits the downside and the upside.
- Ideal for positions about to bullishly breakout.
- Involves a combination of two strategies.



# The Calendar Collar



- The first component involves a longer-term out-of-the-money covered call.
- We generate a cash flow for capping our upside.



# The Calendar Collar



- The second component involves buying a short-term at-the-money protective put.
- We use the proceeds from the covered call to buy the protection.



# The Calendar Collar



- When do we use this strategy?
- If you are optimistic on the investment but you have short-term concerns.
- What makes the strategy effective is that it is volatility neutral.



# The Calendar Collar



- Stock XYZ is trading at \$40.00 a share.
- Investor likes the long term stock potential but has short-term concerns.
- Investor wants to buy the stock and collar it.
- 3 month \$42.00 Call is Bidding \$1.00
- 1 month \$40.00 Put is Asking \$1.00



# The Calendar Collar



- Buy 100 shares at \$40.00.
- Sell the 3-month \$42.00 Covered Call for \$1.00.
- Buy the \$40.00 Put for \$1.00.
- Net cost is \$40.00 for the stock and \$0.00 cost for the collar.
- Downside risk to \$0.00 for the stock and buy back risk of the call.
- Upside potential to \$42.00.





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# Rolling an Option Adjusting Existing Trades



# Managing Spread Positions



- As the position approaches expiration, the short option will be:
  - Out-of-the-money
    - Position to expire.
  - In-the-money
    - It needs to be closed, rolled or exercised.





# Rolling Spreads



- Stock is at \$50.00
- Buy 10x 3month Calls at \$50.00 - \$1.50 ask
- Sell 10x 3month Calls at \$52.00 - \$0.50 bid
- Cost \$1.00 Debit.



# Rolling Spreads



- In the first week the stock rallies to \$52.50
  - The technical potential looks more positive.
- Consider:
  - A vertical roll.
  - Exit early.
  - Hold till expiration.



# Rolling the Short Call



- Stock is at \$52.50 a week later.
- 3month \$52.00 Bid/Ask \$1.50-\$1.60.
- 3month \$54.00 Bid/Ask \$0.65-\$0.75



# Vertical Roll



Stock is at \$52.50

- Buy 3month \$52.00 at Ask = \$1.60
- Sell 3month \$54.00 at Bid = \$0.65
- $\$1.60 - \$0.65 = \$0.95$  Debit

Cost you \$0.95 to open the upside potential for another \$2.00 upside.



# Just Closing the Position



Stock is at \$52.50

- Sell the 3month \$50.00 - \$3.10
- Buy the 3month \$52.00 - \$1.60
- Sell for a \$1.50 credit or \$0.50 profit.



