

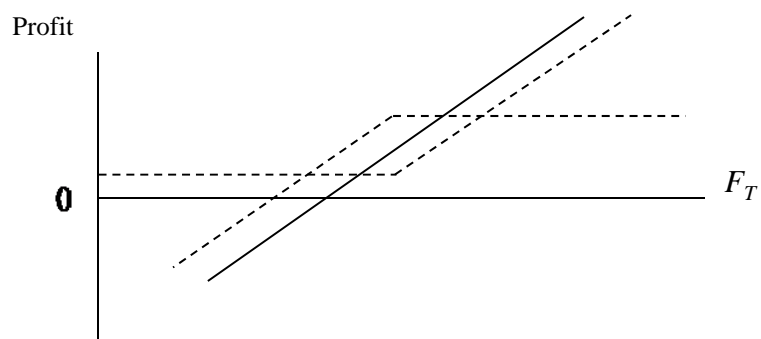
Options Strategies

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Synthetic Long Position in Underlying Asset

- Buy call and sell put with same strike price

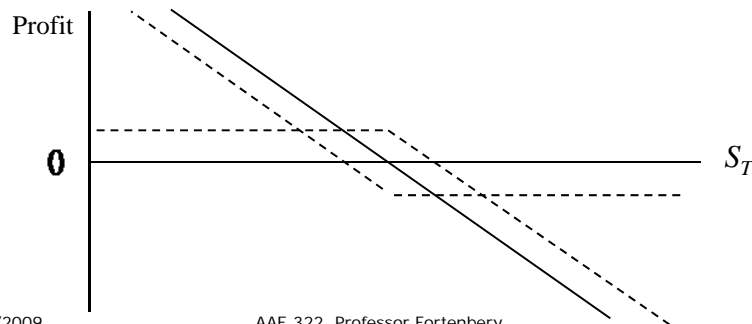


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Synthetic Short Asset

- Buy put and sell call with same strike price
- This should be equivalent to shorting a futures price.
- This might be more efficient than shorting - but note that the position evaporates at maturity.



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Three Alternative Strategies

- ◆ Take a position in the option and the underlying futures
- ◆ A Spread: Take a position in 2 or more options of the same commodity
- ◆ A Combination: Take a position in a mixture of calls and puts.

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Two kinds of spreads

Vertical spread:

- Both options are for the same delivery month, but have different strike prices. Hoping to make money on a futures price move

Horizontal Spread:

The two options have different delivery dates. Similar to a calendar spread in futures. Hoping to make money through time value decay

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Bull Call Spread (vertical)

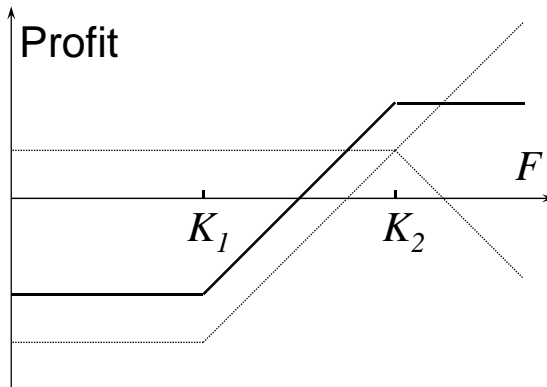
- ◆ Referred to as a bull spread because we are speculating that futures prices will rise.
- ◆ The spread involves buying a call option at one strike price and selling a call option with a higher strike price. Both options are for the same delivery date.

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Bull Call Spread

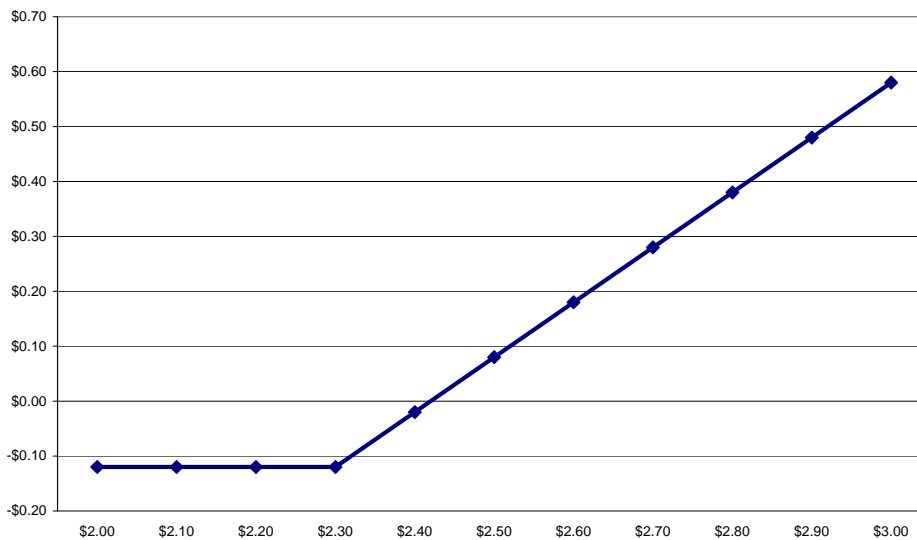
Buy a call with a low strike price, sell a call with a higher strike price.
Bet on higher prices.



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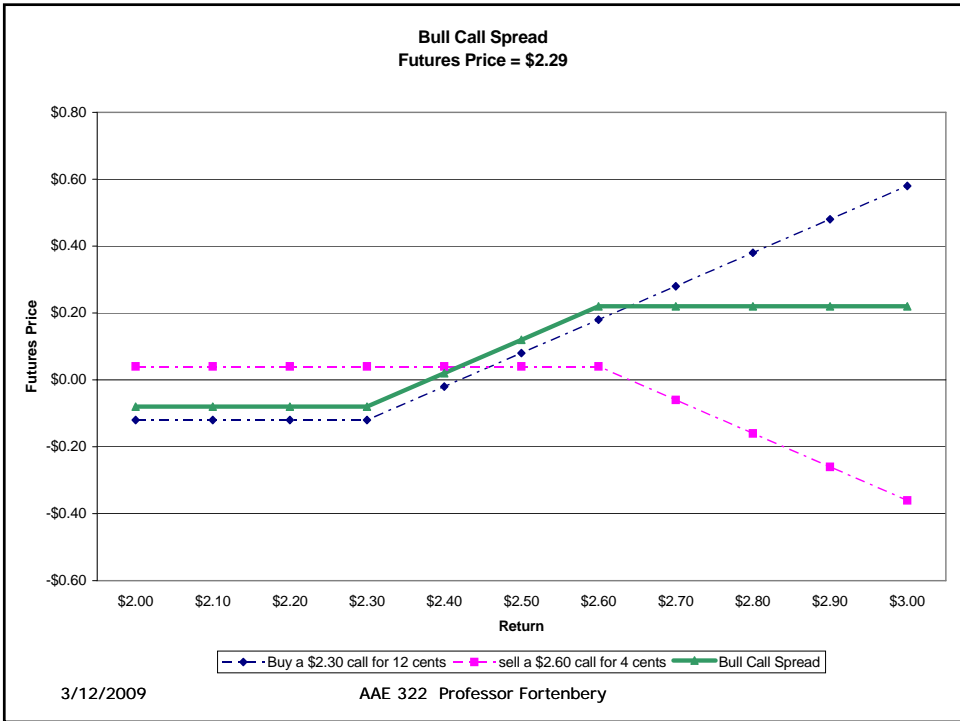
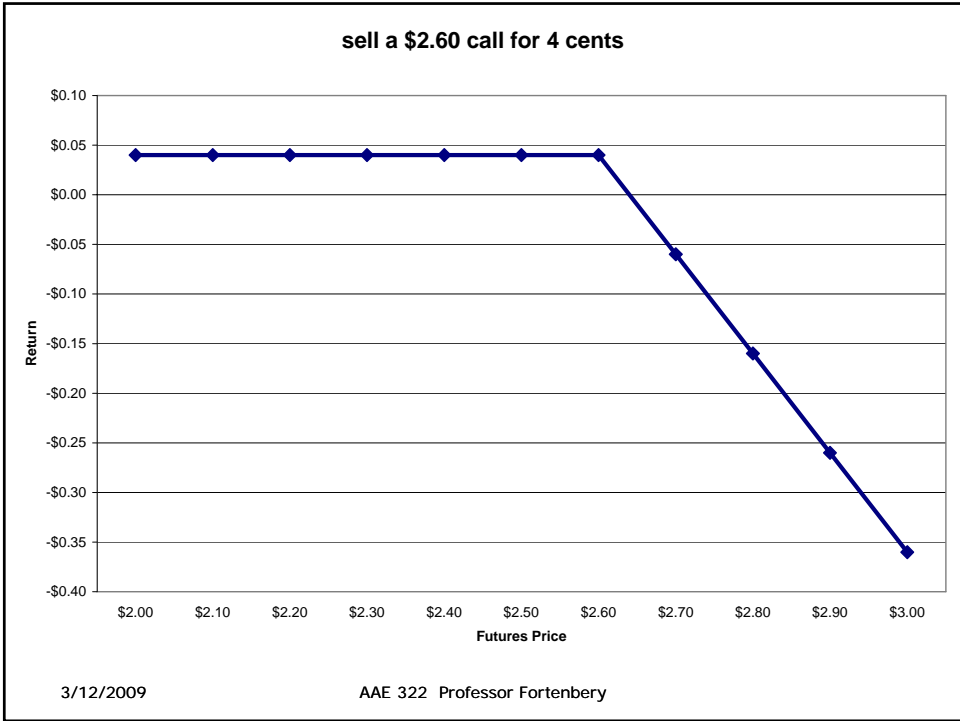
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Buy a \$2.30 call for 12 cents
July Corn Price = \$2.29



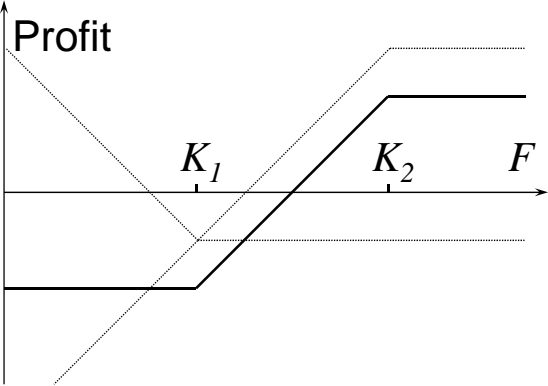
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Bull Spread Using Puts

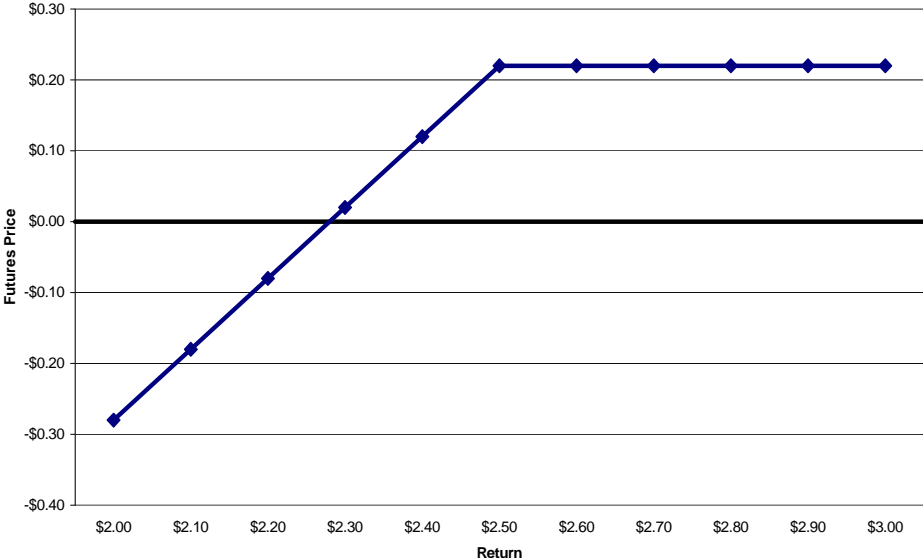
Sell a high strike price put, buy a low strike price put.



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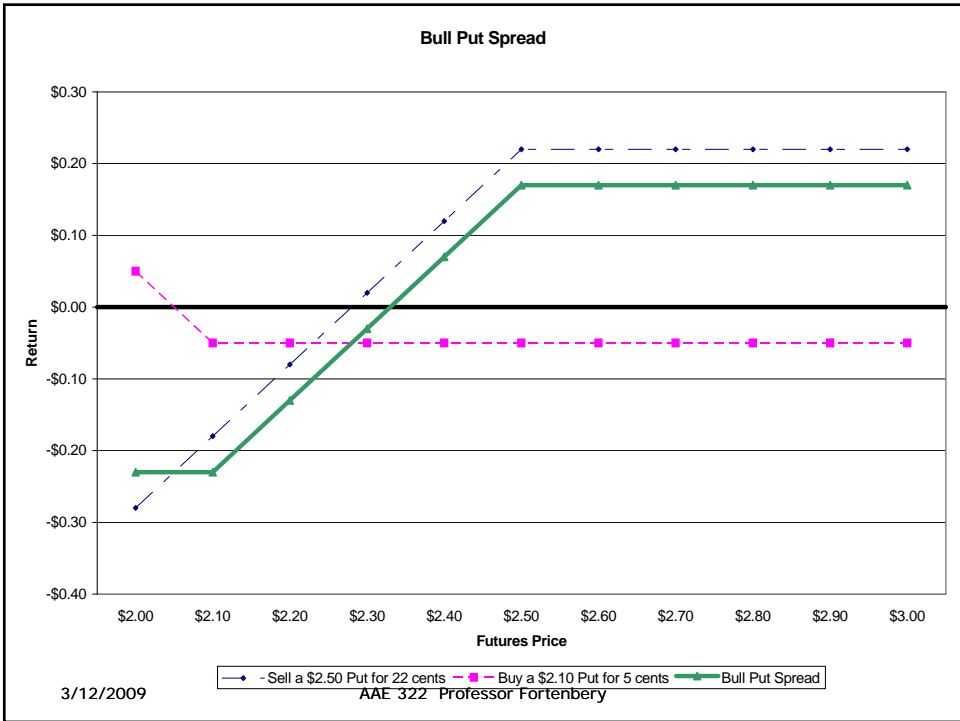
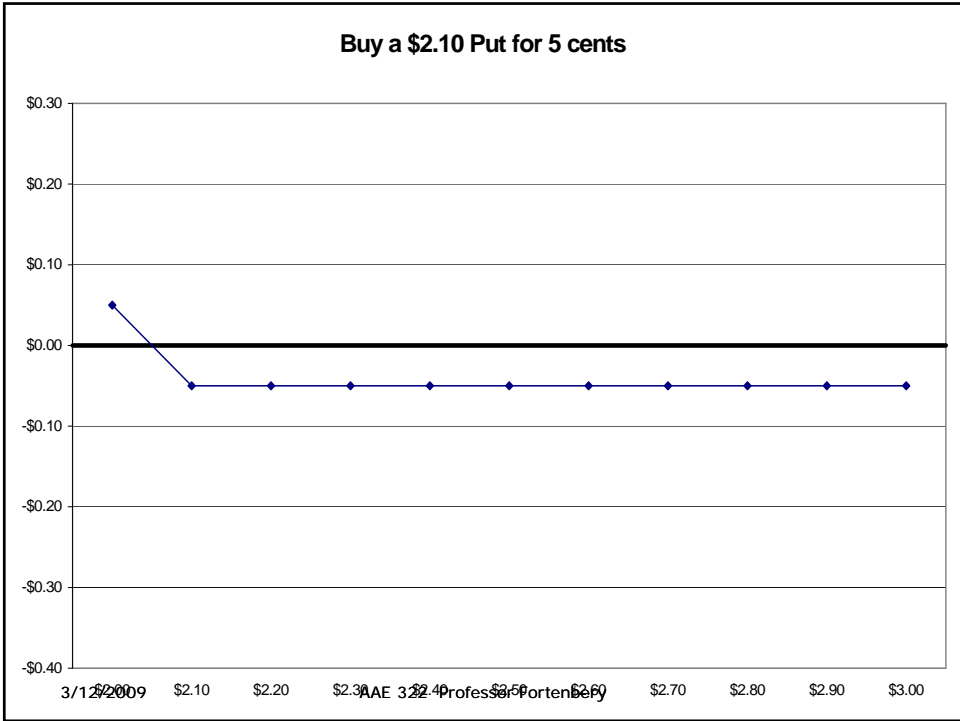
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Sell a \$2.50 Put for 22 cents
Futures Price = \$2.50

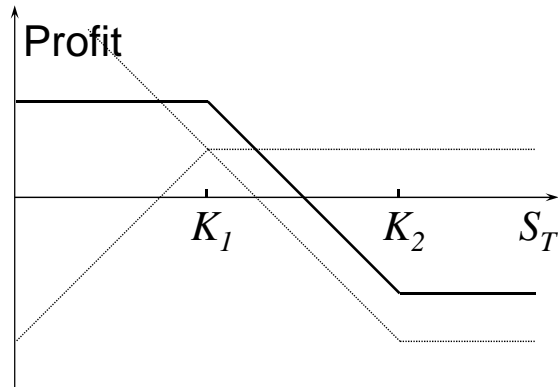


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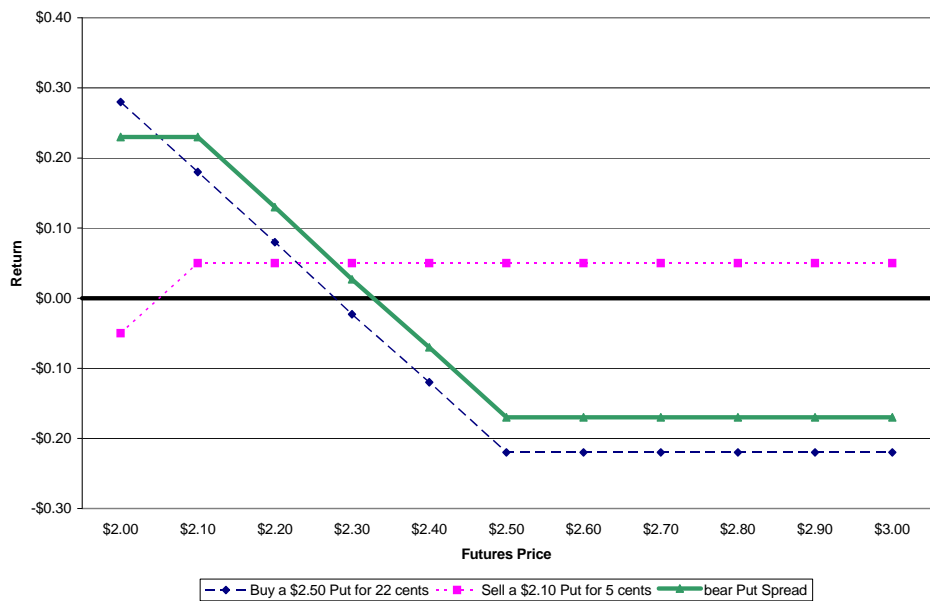
Bear Spread Using Puts



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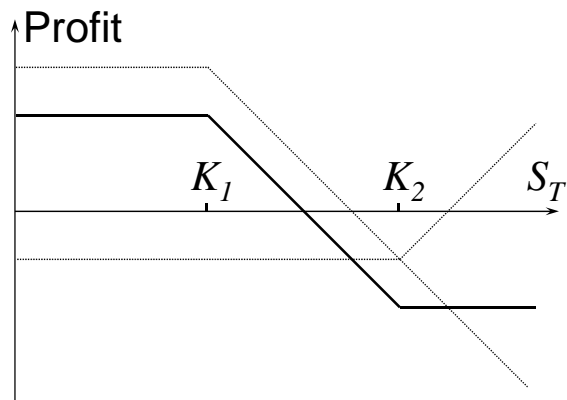
Bear Put Spread



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Bear Spread Using Calls

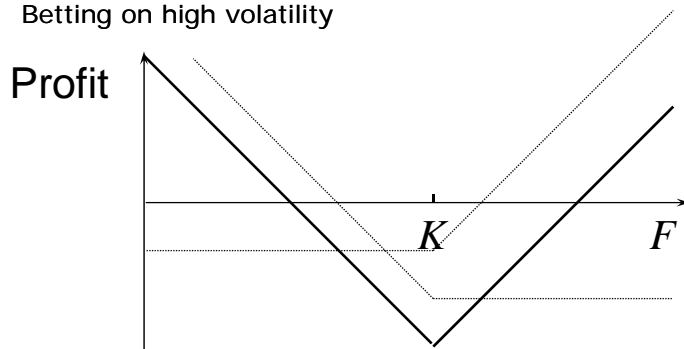


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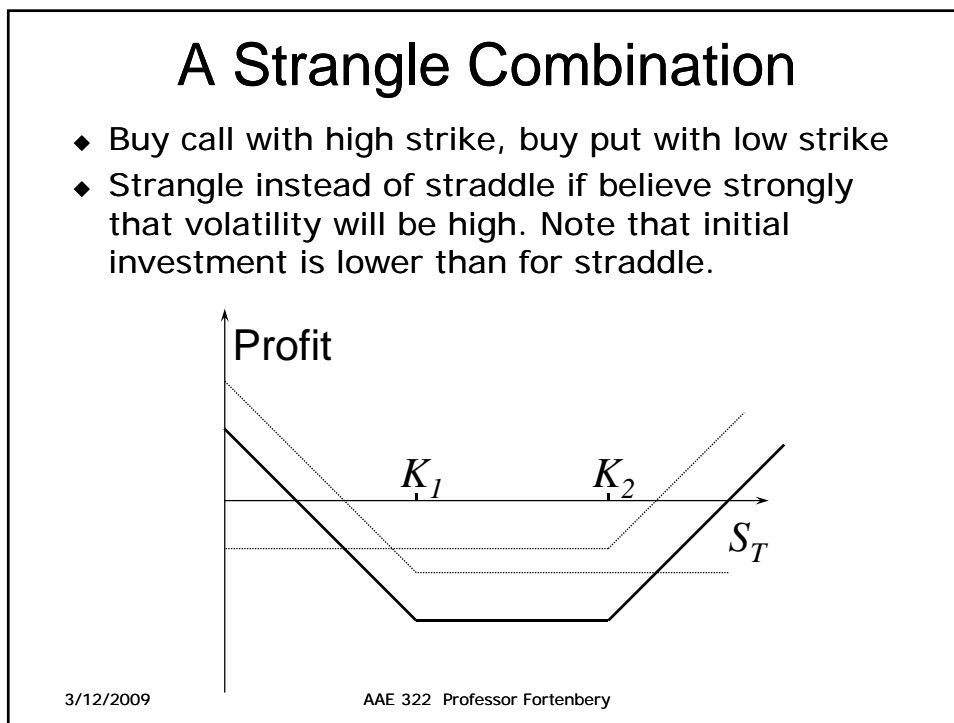
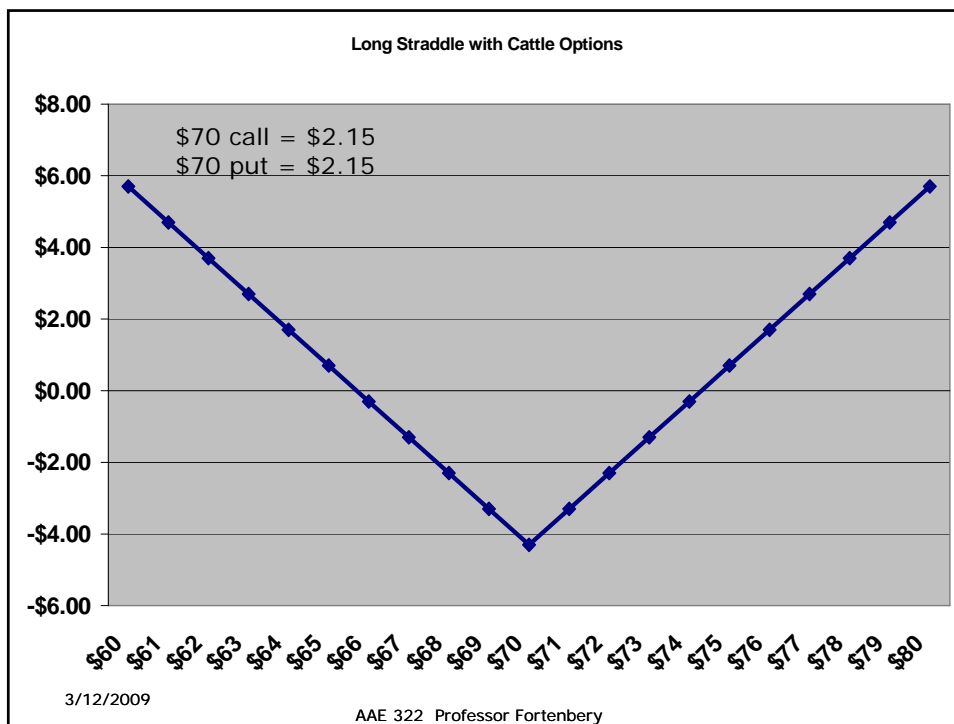
A Long Straddle Combination

- ◆ Buy call and buy put with same strike price
- ◆ Maximum loss = put premium + call premium
- ◆ Maximum gain: unlimited
- ◆ Betting on high volatility



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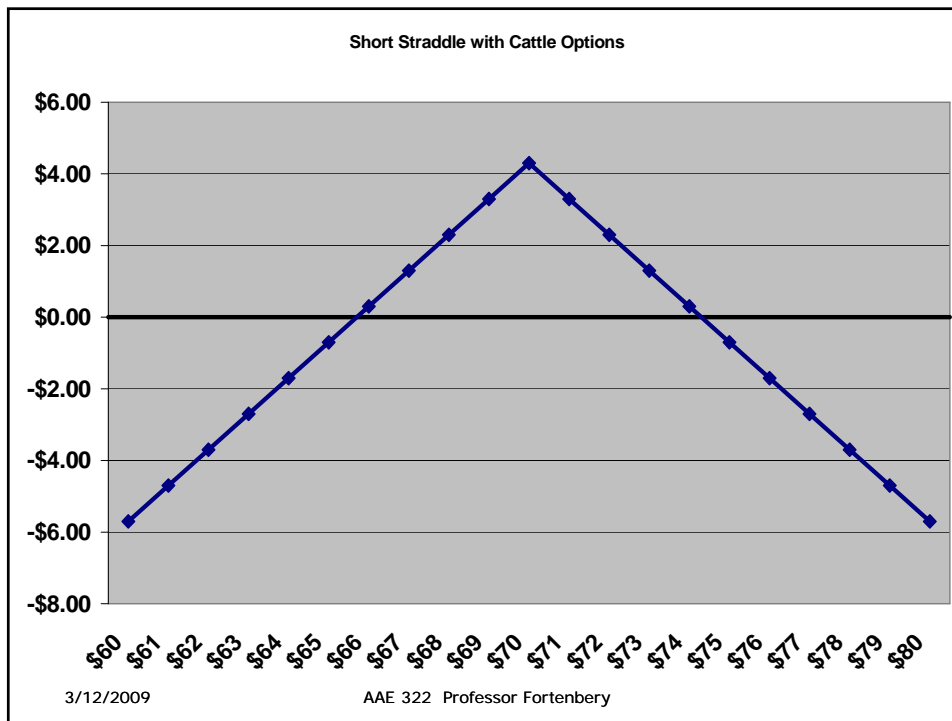


A Short Straddle Combination

- ◆ Sell call and buy put with same strike price
- ◆ Maximum profit = put premium + call premium
- ◆ Maximum loss: unlimited
- ◆ Betting on low volatility, i.e. the market will move by less than the premiums collected

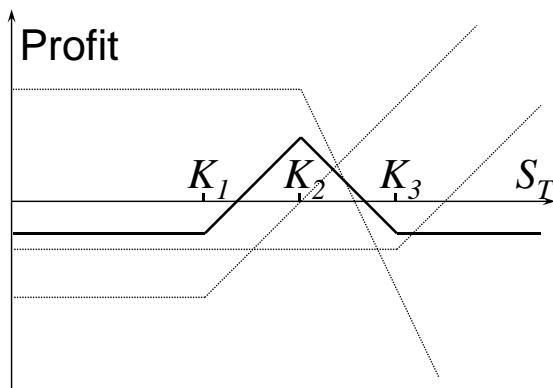
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Butterfly Spread Using Calls

Buy a low strike call
Sell two mid strike calls
Buy a high strike call

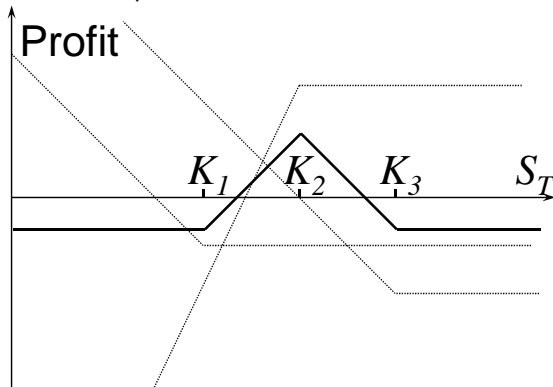


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Butterfly Spread Using Puts

Buy a high strike put
Sell two mid strike puts
Buy a low strike put

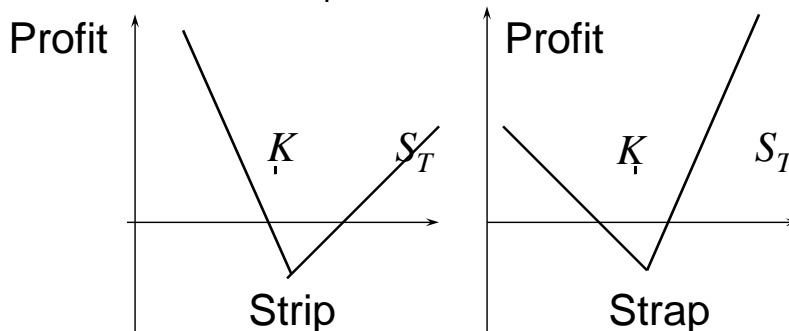


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Strip and Strap

- ◆ A strap is a long position in two calls and a put with the same strike and expiration.
- ◆ A strip is a long position in two puts and a call with the same strike and expiration.



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Covered Call

- ◆ Use - Some downside protection at the expense of giving upside gain potential
- ◆ Position - Buy the futures and write a call

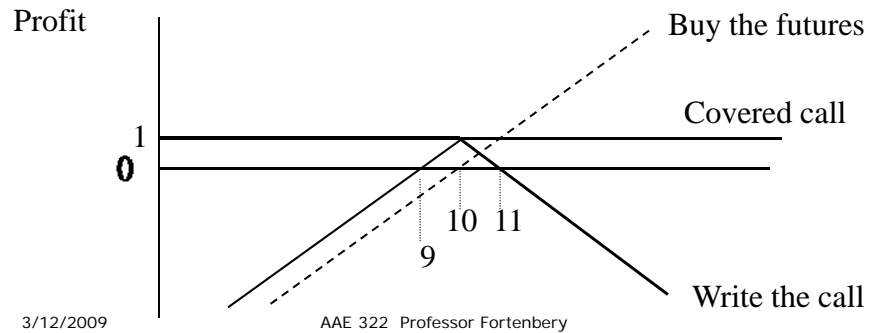
Payoff	$S_T \leq K$	$S_T > K$
Futures	S_T	S_T
Call	0	$-(S_T - K)$

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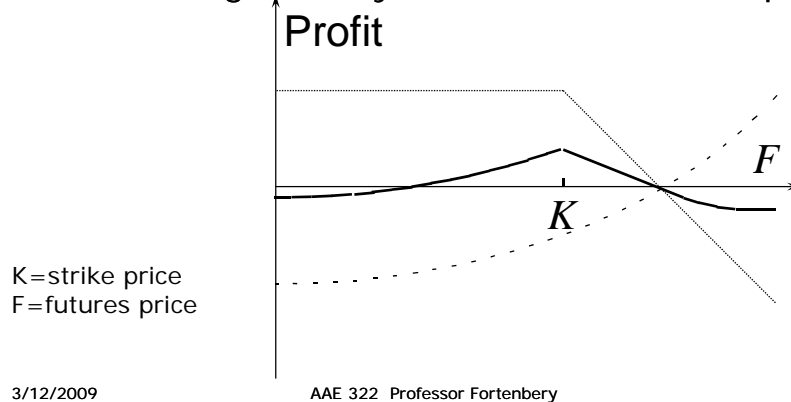
Writing a Covered Call

- Sell call against a long position in the underlying futures
- Reasonable strategy if believe futures won't move above a certain price in the short run.
- Example, Strike=10, premium = 1, futures price = 10



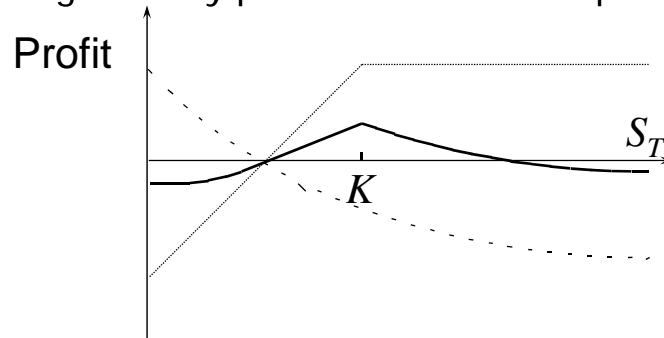
Calendar Spread Using Calls

- ◆ Write a call with a short maturity, buy a call with a long maturity (more expensive usually), and sell the long maturity call when the other expires.



Calendar Spread Using Puts

Write a put with a short maturity, buy a put with a long maturity (more expensive usually), and sell the long maturity put when the other expires.



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