

Options



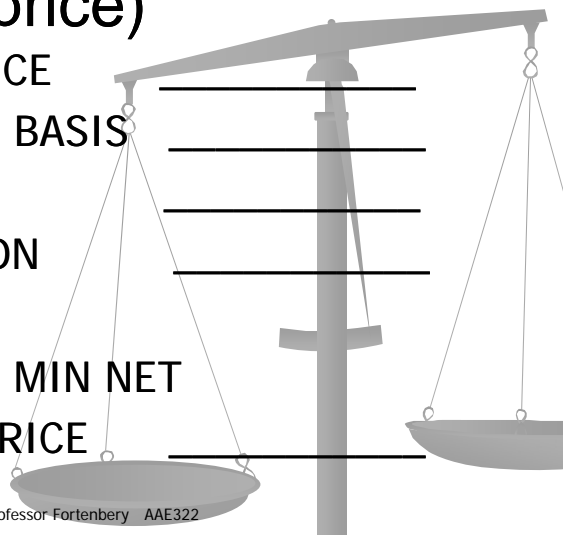
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OPTIONS WORKSHEET (put option to protect sales price)

STRIKE PRICE
+ EXPECTED BASIS
- PREMIUM
- COMMISSION

= EXPECTED MIN NET
SELLING PRICE



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What Happens If?

- July Futures are \$4.35
- Basis in June is expected to be -0.39
- July puts are:
 - \$4.40 strike
 - \$4.30 strike
 - \$4.20 strike



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	Hedge	Option 1	Option 2	Option 3
Price	\$4.35	\$4.40	\$4.30	\$4.20
Basis	-0.39	-0.39	-0.39	-0.39
Premium		-0.17	-0.11	-0.07
Comm.	-.01	0-.01	0-.01	-0.01
Exp Min Price	\$3.95	\$3.83	\$3.79	\$3.73

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**Prices fall 50 cents
Futures = \$3.85**

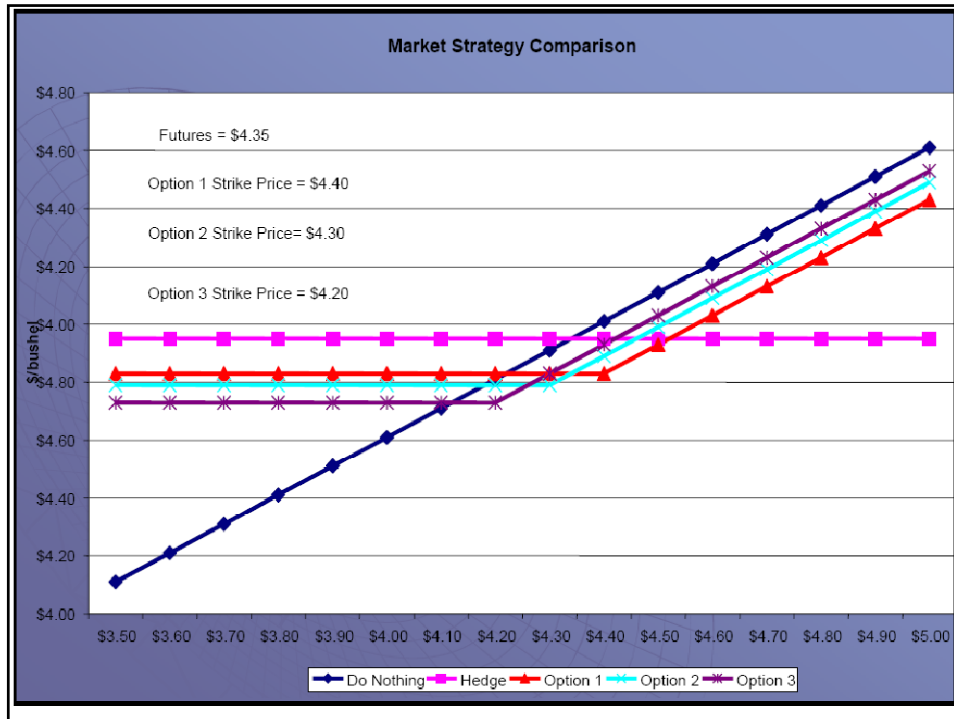
	Hedge	Option 1	Option 2	Option 3
Sell Futures	\$4.35	\$4.40	\$4.30	\$4.20
Buy Futures	-\$3.85	-\$3.85	-\$3.85	-\$3.85
Premium & Comm	-\$0.01	-\$0.18	-\$0.12	-\$0.08
Net Futures	+\$0.49	+\$0.37	+\$0.33	+\$0.27
Sell Cash	\$3.46	\$3.46	\$3.46	\$3.46
Net Price	\$3.95	\$3.83	\$3.79	\$3.73

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**Prices rise 50 cents
futures = \$4.85**

	Hedge	Option 1	Option 2	Option 3
Sell Futures	\$4.35			
Buy Futures	-\$2.85			
Premium & Comm	-\$0.01	-\$0.18	-\$0.12	-\$0.08
Net Futures	-\$0.51	-\$0.18	-\$0.12	-\$0.08
Sell Cash	\$4.46	\$4.46	\$4.46	\$4.46
Net Price	\$3.95	\$4.28	\$4.34	\$4.38

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OPTIONS WORKSHEET (call option to protect a buy price)

STRIKE PRICE
+ EXPECTED BASIS
+ PREMIUM
+ COMMISSION

= EXPECTED MAX NET
PURCHASE PRICE

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What Happens If?

- July Futures are \$4.35
- Basis in June is expected to be -0.19
- July calls are:
 - \$4.50 strike 7cents
 - \$4.40 strike 11cents
 - \$4.30 strike 16 cents



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	Hedge	Option 1	Option 2	Option 3
Price	\$4.35	\$4.40	\$4.30	\$4.20
Basis	-0.19	-0.19	-0.19	-0.19
Premium		+0.07	+0.12	+0.20
Comm.	+.01	+.01	+.01	+.01
Exp Max Price	\$4.17	\$4.29	\$4.24	\$4.22

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**Prices rise 50 cents
Futures = \$4.85**

	Hedge	Option 1	Option 2	Option 3
Buy Futures	\$4.35	\$4.40	\$4.30	\$4.20
Sell Futures	\$4.85	\$4.85	\$4.85	\$4.85
Premium & Comm	\$0.01	\$0.08	\$0.13	\$0.21
Net Futures	+\$0.49	+\$0.37	+\$0.42	+0.44
Buy Cash	\$4.66	\$4.66	\$4.66	\$4.66
Net Price	\$4.17	\$4.29	\$4.24	\$4.22

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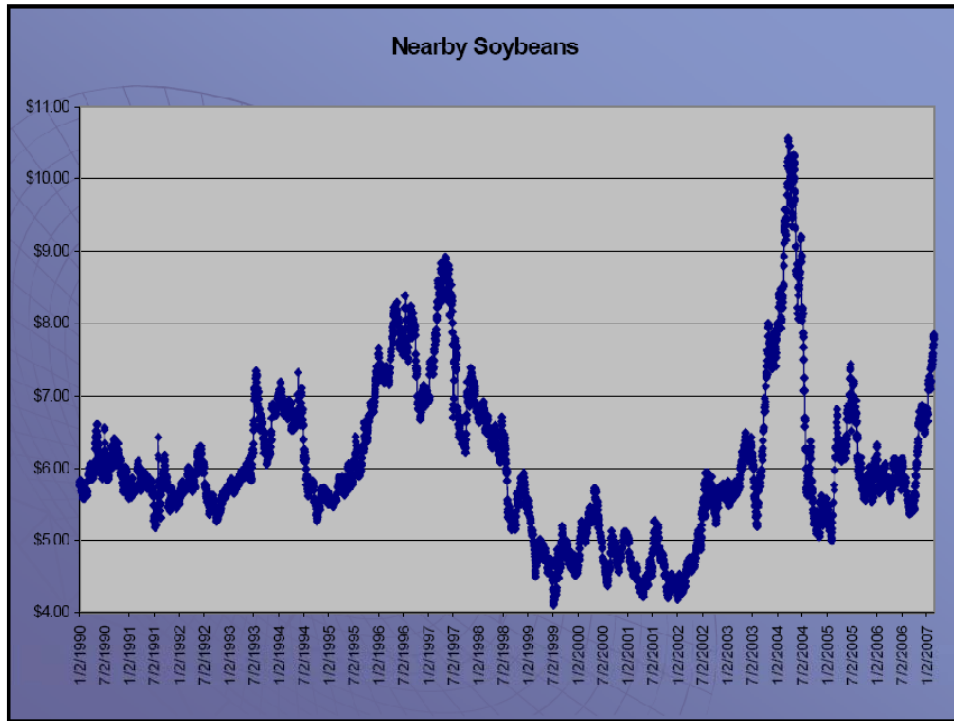
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**Prices falls 50 cents
futures = \$3.85**

	Hedge	Option 1	Option 2	Option 3
Buy Futures	\$4.35			
Sell Futures	\$3.85			
Premium & Comm	\$0.01	-\$0.08	-\$0.13	-\$0.21
Net Futures	-\$0.51	-\$0.08	-\$0.13	-\$0.21
Buy Cash	\$3.66	\$3.66	\$3.66	\$3.66
Net Price	\$4.17	\$3.74	\$3.79	\$3.83

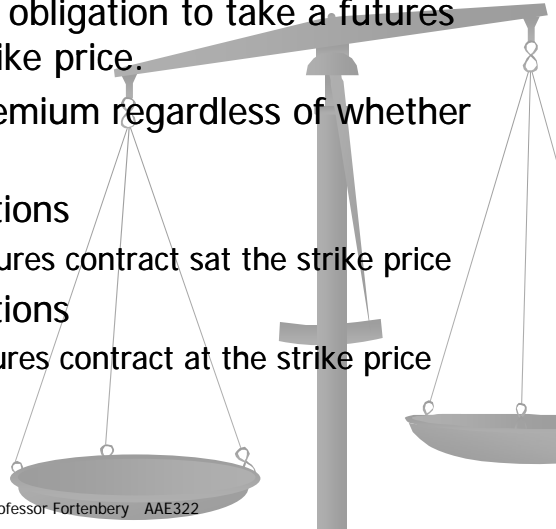
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Option Buyers

- Right, but not the obligation to take a futures position at the strike price.
- Pay the option premium regardless of whether the right is used.
- Owners of call options
 - Right to buy a futures contract at the strike price
- Owners of put options
 - Right to sell a futures contract at the strike price



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Fortenbery Rules of Thumb

- Never pay for intrinsic value in a price risk management program.
- Convince yourself that the futures market has a good chance to increase by TWICE the premium before buying an option.
- Only use options as a temporary substitute for a hedge or forward cash contract.

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Selling Options

- Option sellers collect the premium.
- In return, they take on the obligation to facilitate an option buyers use of the right the option allows.
- Sellers of Puts:
 - Must buy a futures contract at the strike price if the option owner exercises
- Sellers of Calls:
 - Must sell a futures contract at the strike price if the option owner exercises

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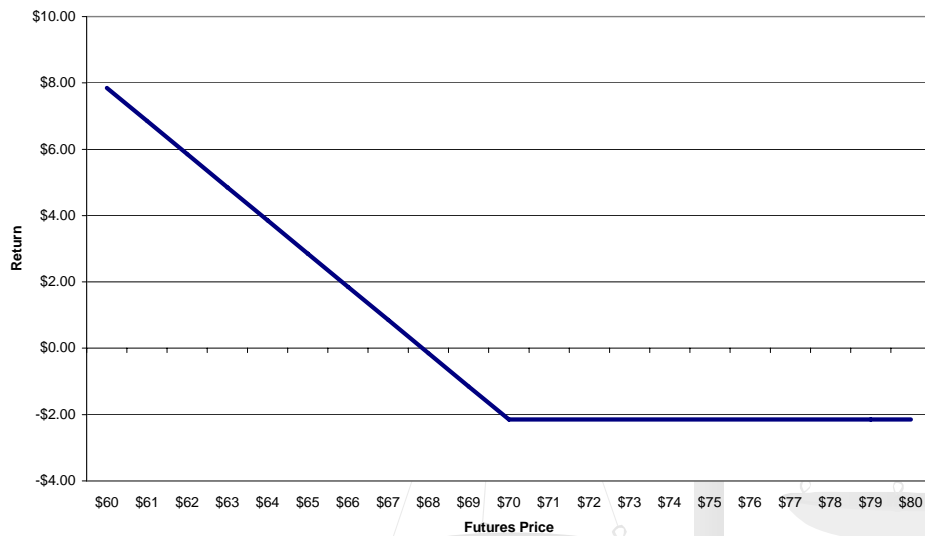
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Options sellers face unlimited risk and limited profit opportunities (can only collect the premium).
Margin accounts must be maintained, including making margin calls. The premium cannot be taken from the margin account until the option is offset, exercised, or expires.

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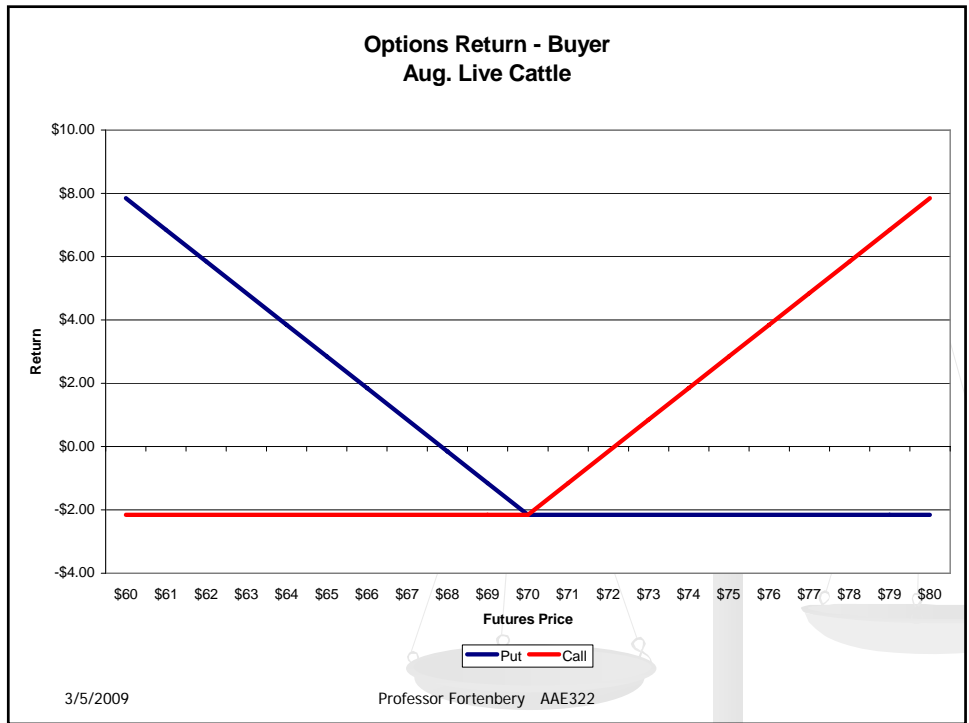
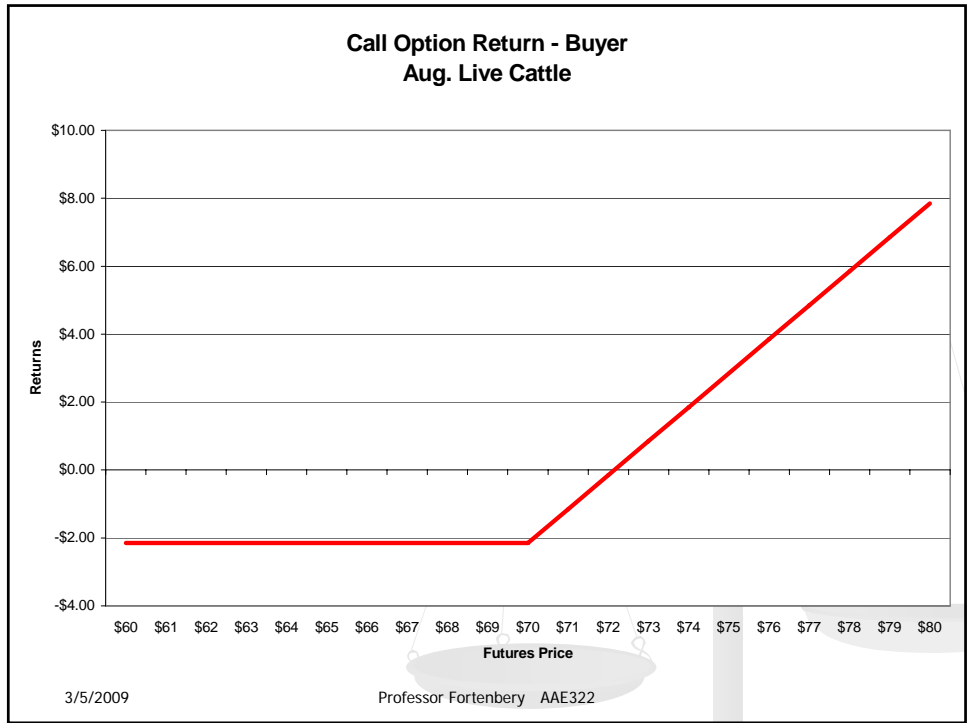
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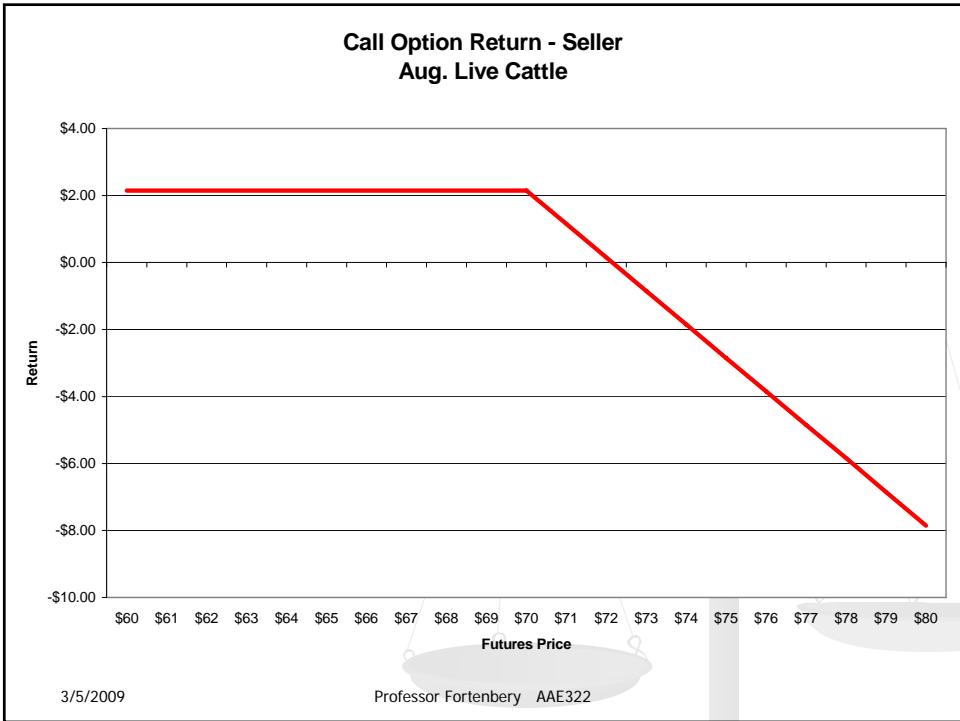
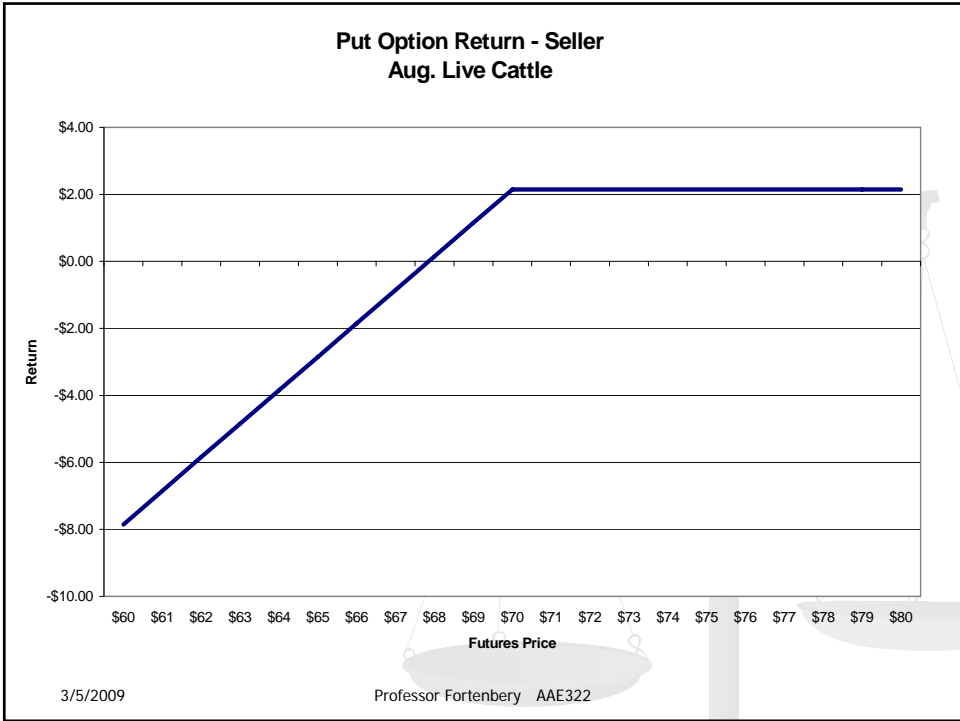
Put Option Return - Buyer
Live Cattle - Aug Delivery

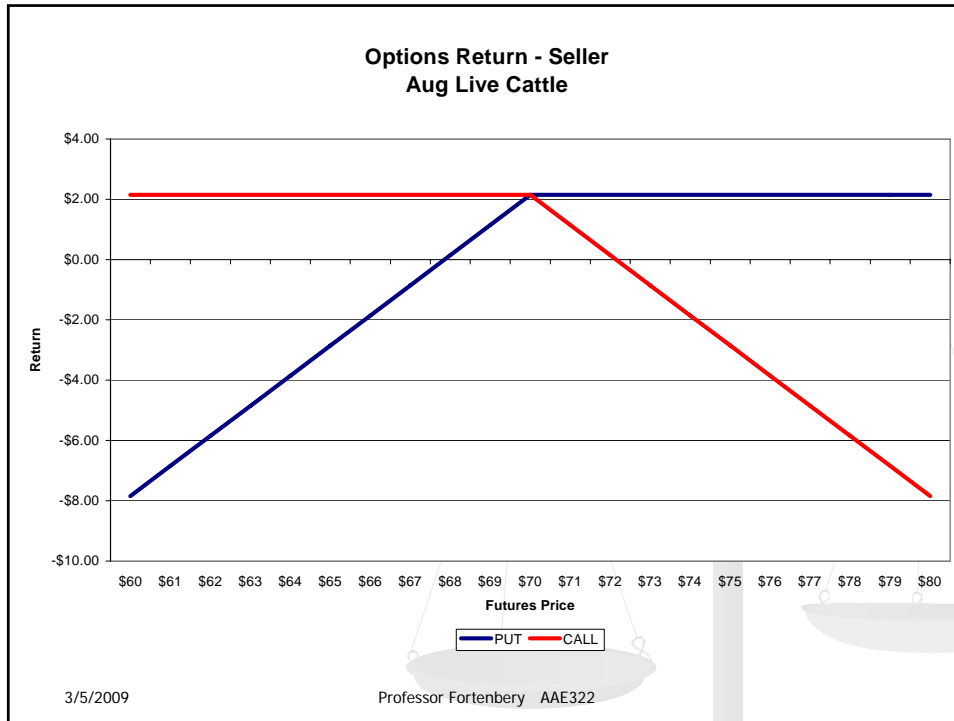


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Options Strategies

We can combine options and futures, or options with different strike prices, different delivery dates, or different rights in an attempt to “surround” the market.

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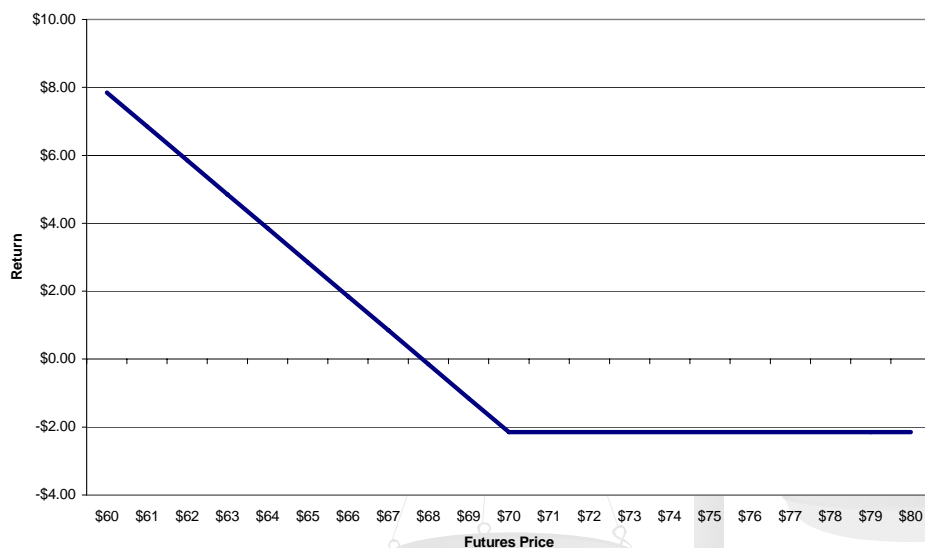
Creating a synthetic futures position

- A synthetic futures position involves buying one type option (a put or call) and selling the other type option.
- A short futures position (meaning we have synthesized selling a futures contract) is constructed by simultaneously buying a put (pay the premium) and selling a call (collecting the premium) with the same strike price.

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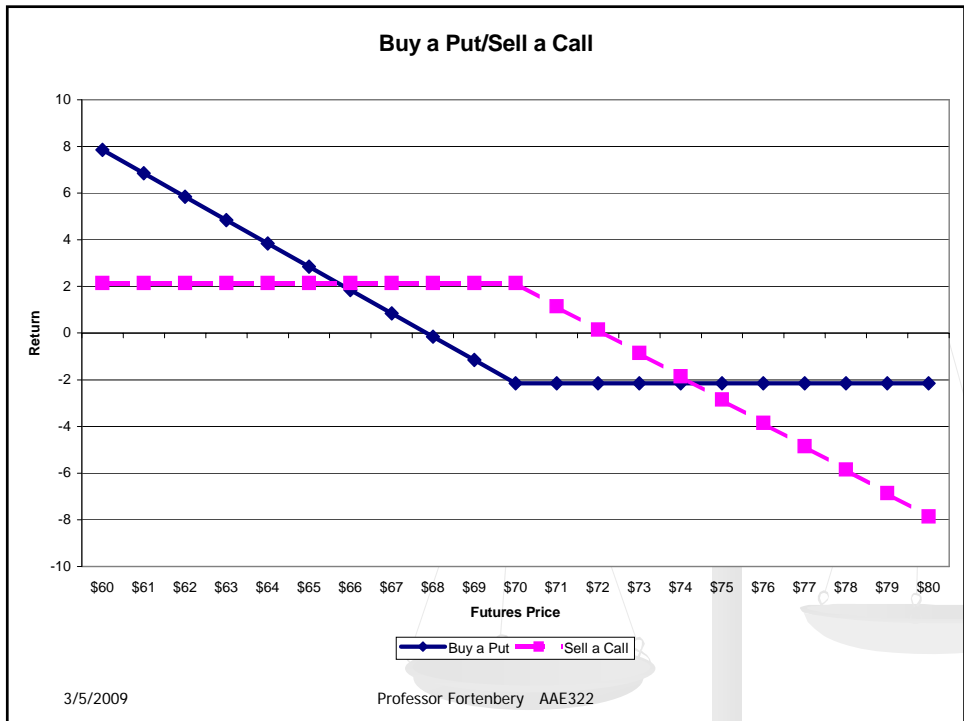
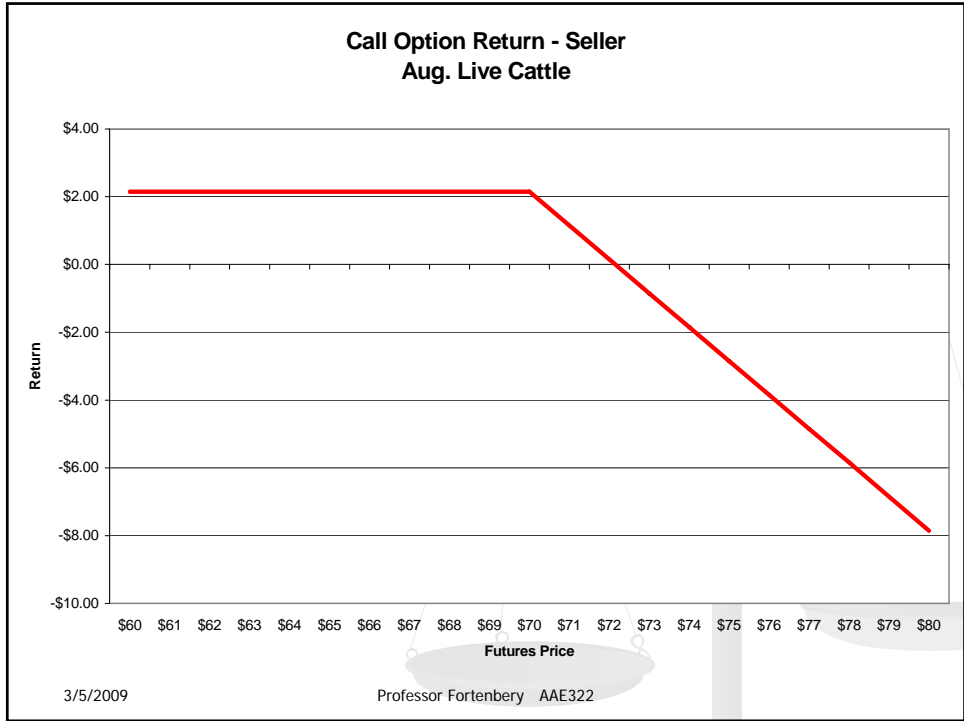
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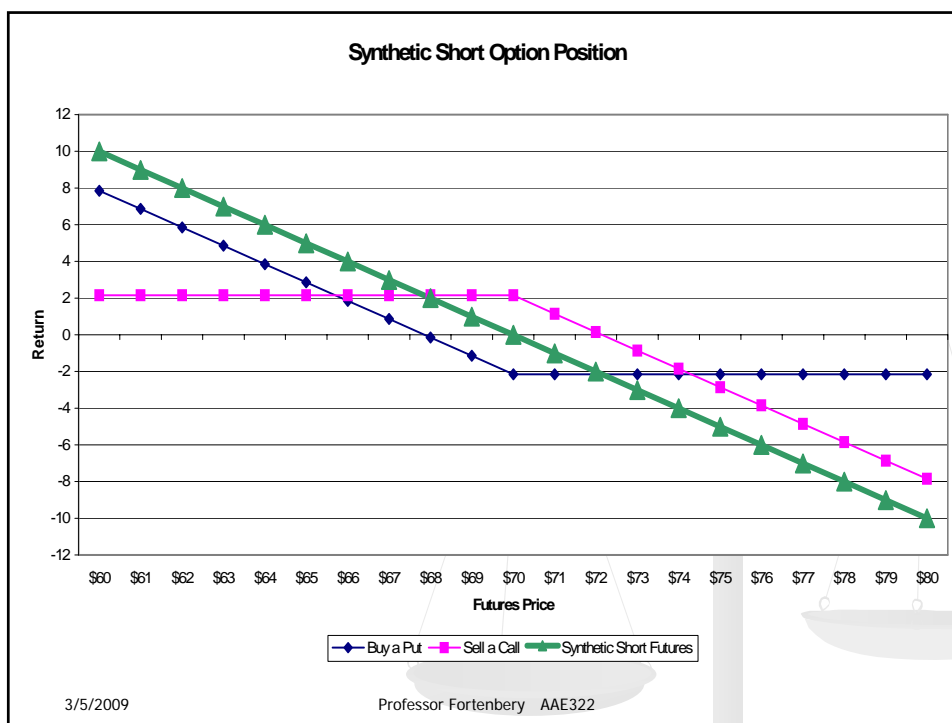
Put Option Return - Buyer
Live Cattle - Aug Delivery



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Uses of a synthetic short position

- Hedge the cash price for a later sale
- Speculate of lower futures prices
- If futures prices go lower, the call option expires worthless (we keep the premium), and the put option gains intrinsic value.
- If futures prices go higher, we put option expires worthless (we lose the premium) and the call option is exercised against us.

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