Agricultural Commodity Marketing: Futures, Options, Insurance

Advanced Futures and Options Strategies

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Advanced Strategies

- The Synthetic Put
- The Synthetic Call
- The Fence

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The Synthetic Put

- This strategy converts a fixed price to a minimum price by purchasing a call in conjunction with another action
  - Sell grain, buy a call
  - Forward contract milk, buy a call
  - Sell Feeder Cattle Futures, buy a call
- The call can be purchased when the other transaction occurs, or at a later date

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Converting a Fixed Price to a Minimum Price

- If you have sold your commodity or if you have a forward contract you have a fixed price
- If you have sold futures, you have a fixed price with some basis risk
- A call will increase in value when the underlying futures prices increase
- Purchasing a call, therefore converts this fixed price to a minimum price

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Sell Grain and Buy a Call Option Example Market Rallies

- Sell Wheat at Harvest in August for $4.50
- Expect Wheat Market to Rally
- In August, Dec KCBT Wheat is $5.20
- Buy $5.30 Dec KCBT Wheat Call @ $.12
- In November, Dec KCBT is at $5.70
- Sell $5.30 Dec KCBT Wheat Call @$.42
- Options Gain = $.30
- Net Cash Price = $4.50 + .30 = $4.80

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Sell Grain and Buy Call Option Example Market DOES NOT Rally

- Sell Wheat at Harvest in August for $4.50
- Expect Wheat Market to Rally
- In August, Dec KCBT Wheat is $5.20
- Buy $5.30 Dec KCBT Wheat Call @ $.12
- In November, Dec KCBT is at $5.00
- Call Option Expires with $0 value
- Options Loss = $.12
- Net Cash Price = $4.50 - .12 = $4.38
- Potential Loss is limited to call Premium

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Sold Calve on Video in July for October Deliver, then Buy a Call Option Example Market Rallies

- Sold 500 lb calves for \$100/cwt for Oct. delivery
- In August, corn prices are falling and calf prices are strengthening
- In August, buy \$102 Oct FC Call for \$2.50/cwt
- In October deliver calves and receive \$100/cwt
- Oct FC futures are now at 108/cwt
- Sell \$102 Oct FC Call for \$6.00
- Options Gain = \$6.00 - \$2.50 = \$3.50/cwt
- Net Cash Price = \$100 + \$3.50 = \$103.50/cwt

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Sold Calve on Video in July for October Deliver, then Buy a Call Option Example Market Does Not Rally

- Sold 500 lb calves for $100/cwt for Oct. delivery
- In August, corn prices are falling and calf prices are strengthening
- In August, buy $102 Oct FC Call for $2.50/cwt
- In October deliver calves and receive $100/cwt
- Oct FC futures are now at $98/cwt
- $102 Oct FC Call expires with $0 value
- Options Loss = $2.50
- Net Cash Price = $100 - $2.50 = $97.50/cwt
- Loss limited to call option premium

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Advantages of Synthetic Put

- Can either sell or forward contract and still take advantage of market price rally
- May offer a higher floor price at times than an outright put purchase
- Can collect call premium at any time by selling call if market rallied and you still have forward contract in place if market declines

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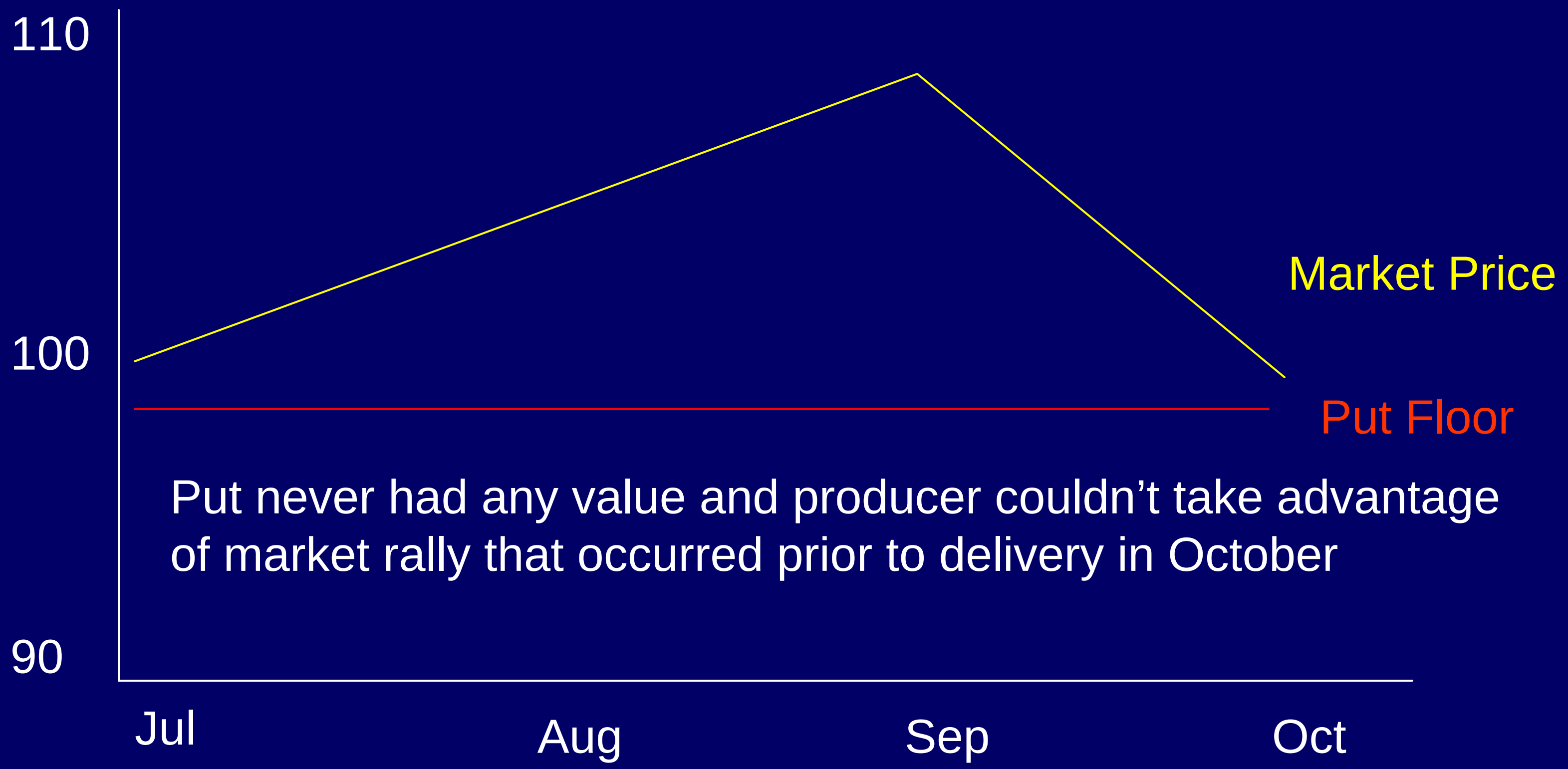
Purchase a $100 Put for $2



Put never had any value and producer couldn't take advantage of market rally that occurred prior to delivery in October

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Forward Contract for $100 and buy $102 Call for $2

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The Synthetic Call

- This strategy converts a fixed price to a maximum price by purchasing a put in conjunction with another action
  - Buy grain, buy a put
  - Forward contract grain, buy a put
  - Buy Feeder Cattle Futures, buy a put
- The put can be purchased when the other transaction occurs, or at a later date

Converting a Fixed Price to a Maximum Price

- If you have purchased grain or if you have a forward contract you have a fixed price
- A put will increase in value when the underlying futures prices decrease
- Purchasing a put, therefore converts this fixed price to a maximum price

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Forward Contract Grain and Buy a Put Option

- In July forward contracted for corn to feed in Nov for $4.00
- You now expect corn prices to decline
- In August, Dec Corn is $3.80
- Buy $3.70 Dec Corn Put @ $.15
- In November, accept contracted corn and pay $4.00
- Dec Corn is now at $3.40
- Sell $3.70 Dec Corn Put for $.30
- Options Gain = $.30 - $.15 = $.15
- Net Cash Price Paid = $4.00 - .15 = $3.85

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Advantages of Synthetic Call

- Can either buy or forward contract and still take advantage of lower market prices
- Can collect put premium at any time by selling put if lower market prices occur and you still have forward contract in place if market then rallies

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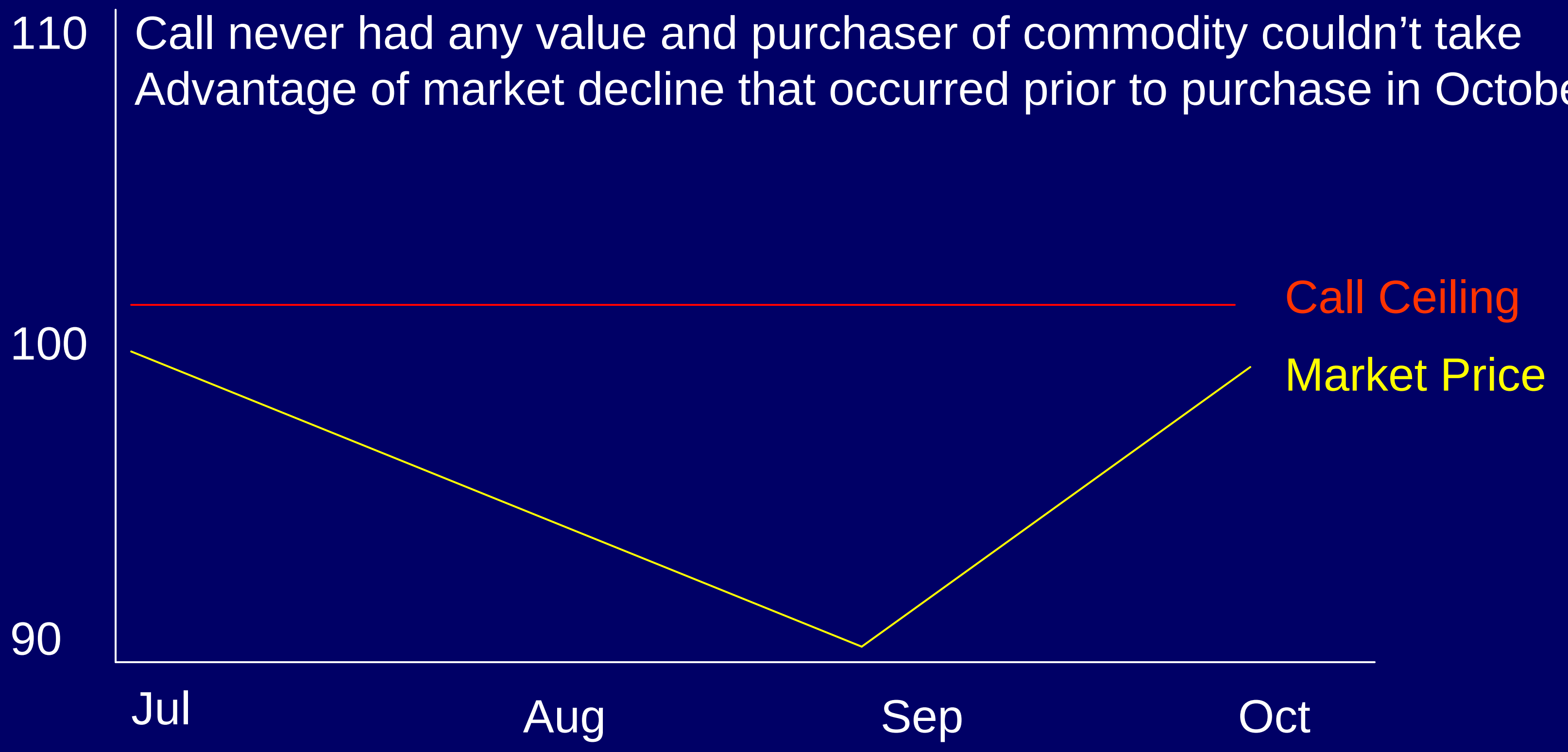
Purchase a $100 Call for $2



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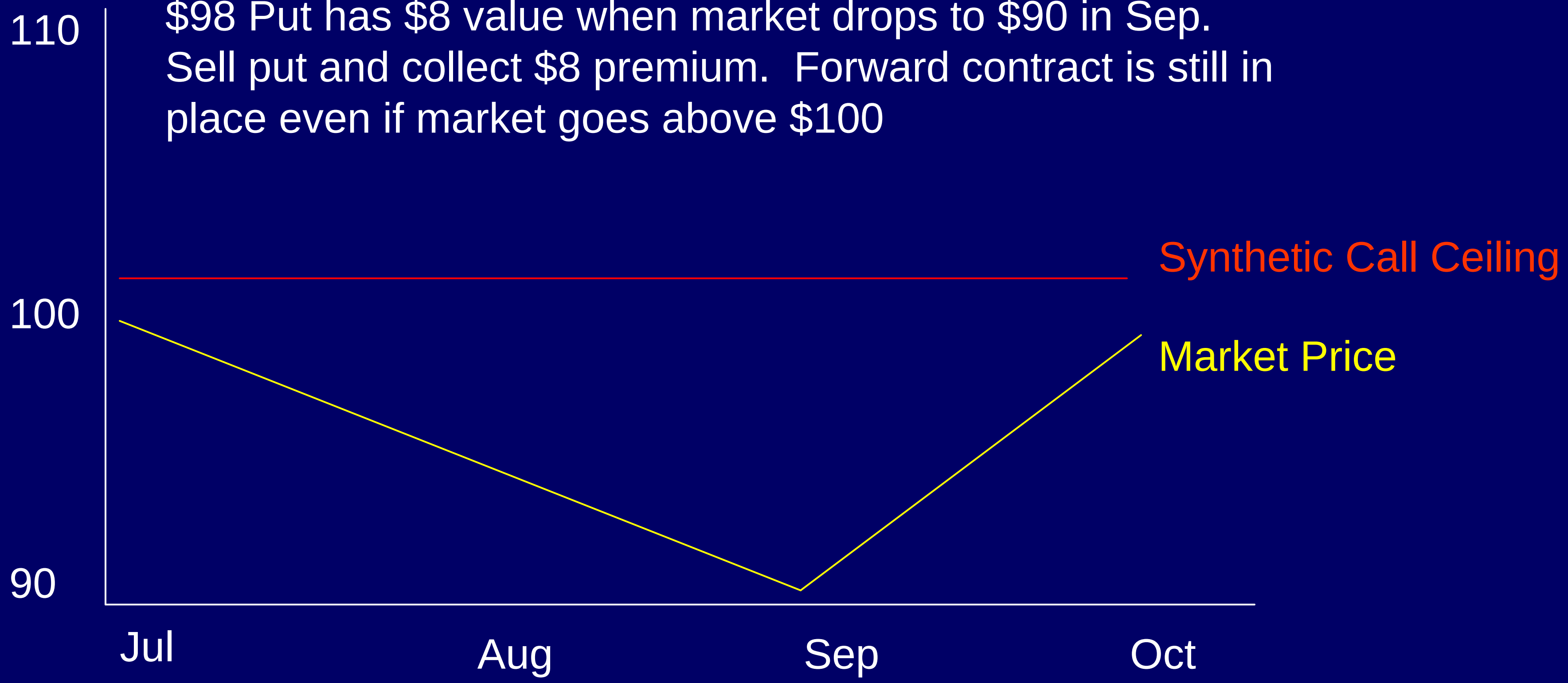
Forward Contract for $100 and buy $98 Put for $2

$98 Put has $8 value when market drops to $90 in Sep. Sell put and collect $8 premium. Forward contract is still in place even if market goes above $100



The Fence

- Establishes a minimum selling price at a reduced premium cost
- Buy put, to establish minimum price
- Sell call to offset put premium

The Fence
Creates a Minimum and Maximum Price

- Minimum Price =

  Put Strike – Put Premium + Call Premium +/- Basis

- Maximum Price =

  Call Strike – Put Premium + Call Premium +/- Basis

Live Cattle Example

- In August, DEC Live Cattle were trading at $96
- Two Fences are illustrated based on the Put and Call premiums in the market place

Put Strike	Call Strike	Put Premium	Call Premium	**Nov** Basis	Expected Min. Price	Expected Max Price
$94.00	$98.00	$2.18	$2.15	-$0.74	$93.23	$97.23
$92.00	$100.00	$1.45	$1.40	-$0.74	$91.21	$99.21

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Feeder Cattle Example

- In August, OCT Feeder Cattle were trading at $113.73
- Two Fences are illustrated based on the Put and Call premiums in the market place

Put Strike	Call Strike	Put Premium	Call Premium	**Oct** Basis	Expected Min. Price	Expected Max Price
$112.00	$116.00	$2.13	$1.80	$3.88	$115.55	$119.55
$110.00	$118.00	$1.58	$1.10	$3.88	$113.40	$121.40

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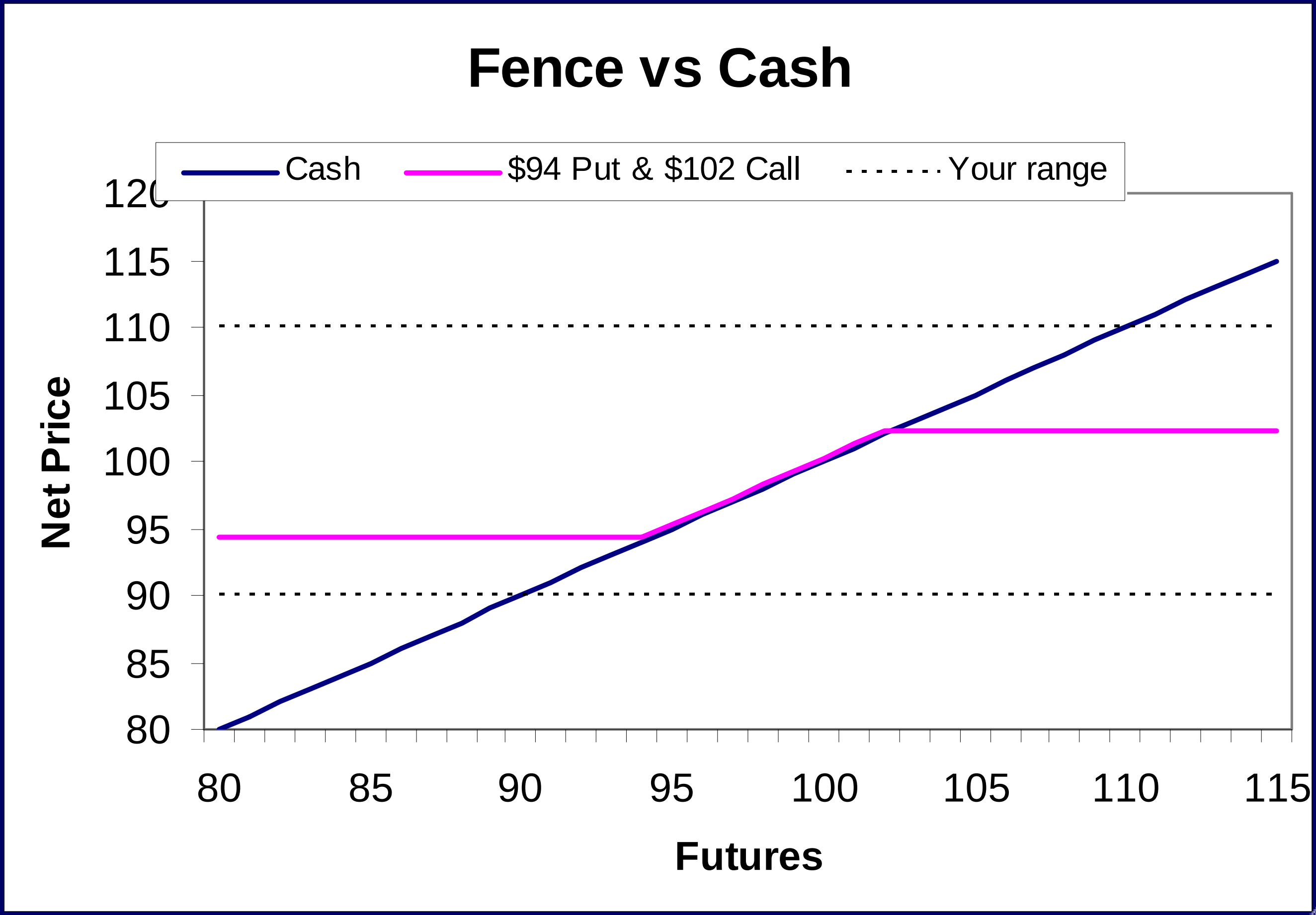
The Fence
Graphically



The Fence
Advantages and Disadvantages

- Advantages
  - Establish a minimum price for less cost than simply purchasing a Put option
  - Can generally establish a higher minimum price
  - You can choose the minimum and maximum price that is best for you

- Disadvantages
  - Upward price opportunity is limited
  - Margin call responsibility for the Call option that was sold

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