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Marketing Tools

- Cash sell at harvest
- Pool sales
- Cash forward contract
- Sell futures contracts
- Buy put options
- Buy puts and sell calls
- Cash contract and buy calls
- Sell futures and buy a call, sell a call
- Buy a put, sell a put, buy a call
- Buy options on contracted or pooled sales

SOUTHERN EXTENSION RISK MANAGEMENT EDUCATION

TEXAS A&M AGRILIFE EXTENSION

Marketing Strategies

Basics

1. Do Nothing
   - Cash sales at harvest
2. Fix Price Now
   - Cash forward contract
   - Hedge with futures contracts
3. Set a Price Floor
   - Options

Advanced

4. Set a Price Floor/Ceiling
   - Options

1. Do Nothing

- If you do no pre-harvest pricing, you are a speculator in the cash market.
- You accept all the price risk between now and whenever you decide to sell.

2. Fix Price Now—Cash Contract

- Private negotiation in which the producer and the merchant agree now upon a price of a commodity to be delivered in the future
- Advantages
  - Producer and merchant lock in a price ahead of time
  - Helps eliminate the uncertainty caused by price fluctuations

2. Fix Price Now: Hedging with Futures Contracts

- **Hedging is a position in the futures market that is opposite one's position in the cash market.**
- **Since futures and cash markets move together, any loss in the cash market is offset by gains in the futures market.**
- **Hedging is doing *now* in the futures market what you anticipate doing *later* in the cash market.**

Corn	C		Futures
prices in $/bushel		Current	$ 4.5500
		Harvest	$ 3.80
		Basis	$ 0.20
		Contract Offer	$ 4.70
Acres		25	
bu/acre		200	
est. production, bu		5,000	
pre-harvest mkt		1.00	
pre harvest bushels		5,000	
contract spec, bu		5,000	
contracts to hedge		1.0	
contract month		December	Options exp	11/26/2021	Contract exp	12/14/2021

What if I'm right: 4.74/bu

Hedging with Futures Contracts

Pre-delivery							
	Sell Futures	1	December	C	$4.55000		
At delivery							
	Buy Futures	1	December	C	$3.80		
	Profit(loss)				$0.75000		$3,750.00
	Commission ($50/contract)						($50.00)
	Net profit (loss) from hedge						$3,700.00
	Basis at delivery				$0.2000		
	Sell	5,000	bushels		$4.00		$20,000.00
	Net grain sales						$23,700.00
	Average price per bushel						$4.7400

What if I'm wrong: 4.74/bu

Corn	C		Futures				
prices in $/bushel		Current	$ 4.5500				
		Harvest	$ 5.80				
		Basis	$ 0.20				
		Contract Offer	$ 4.70				
Acres		25					
bu/acre		200					
est. production, bu		5,000					
pre-harvest mkt		1.00					
pre harvest bushels		5,000					
contract spec, bu		5,000					
contracts to hedge		1.0					
contract month		December	Options exp	11/26/2021	Contract exp	12/14/2021	

Hedging with Futures Contracts								
	Pre-delivery							
		Sell Futures	1	December	C	$4.55000		
	At delivery							
		Buy Futures	1	December	C	$5.80		
		Profit(loss)				($1.25000)		($6,250.00)
		Commission ($50/contract)						($50.00)
		Net profit (loss) from hedge						($6,300.00)
		Basis at delivery				$0.2000		
		Sell	5,000	bushels		$6.00		$30,000.00
		Net grain sales						$23,700.00
		Average price per bushel						$4.7400

Hedging Calculator

TEXAS A&M AGRILIFE EXTENSION

Put: right to sell; Call right to buy

Basic Option Strategies

	PUT	CALL
	Buy	Sell
	Sell	Buy

Put: right to sell; Call right to buy

Buying Put Options

- Effectively creates a minimum price contract
- Never the most profitable strategy
- Limits losses if prices go down
- Gains are unlimited if prices go up
- Expensive

Corn Example

- **Situation:**
  - You are a corn farmer who wants protection in case prices fall by harvest
- **Strategy:**
  - Buy a December put option

Texas A&M AgriLife Extension

Determine Expected Selling Price;

December corn is trading at 455 per bushel

Strike Prices	Put Premiums
410	19.750
420	24.250
430	29.375
440	34.875
450	40.625
460	46.875

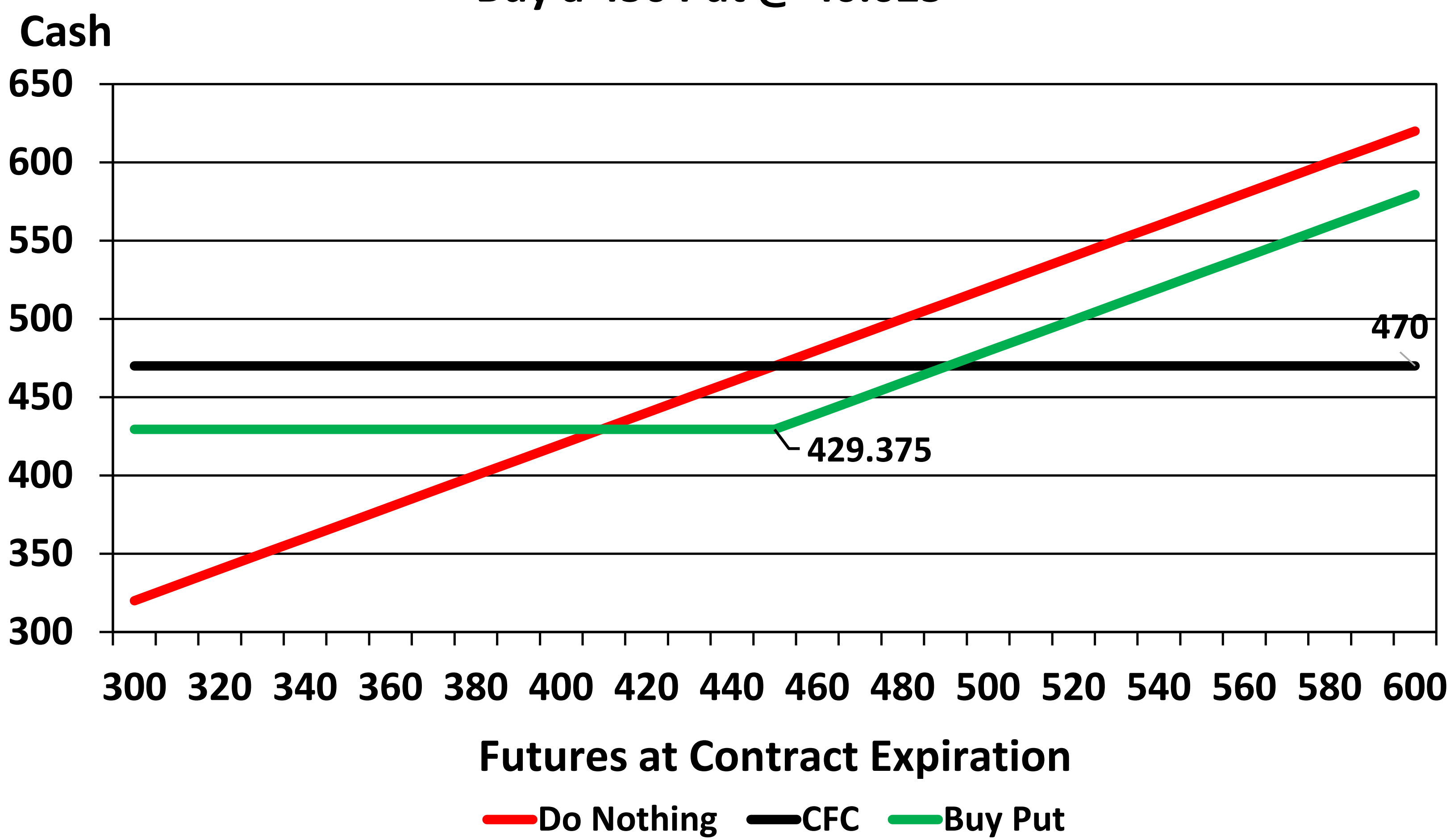
Determine Expected Selling Price

Select Appropriate Futures Contract Month	December		
Select Appropriate type of Option	Buy Put (right to sell)		
Calculate Minimum Selling Price			
Strike price	410	430	450
Subtract premium	19.750	29.375	40.625
Adjust for basis	+20	+20	+20
Minimum price	410.250	420.625	429.375

Marketing Strategies

Do Nothing, Cash Forward Contract, Buy a Put

Futures @ 455, CFC @ 470, Expected Basis = +20
Buy a 450 Put @ 40.625



Put floor = strike price minus premium plus basis

Put floor = 450 – 40.625 + 20 = 429.375

Texas A&M AgriLife Extension

Corn	C		Futures		Strike	Premium
prices in $/bushel		Current	$ 4.5500	At the money put	$ 4.50	$ 0.40625
		Harvest	$ 3.80	At the money call	$ 4.50	$ 0.45625
		Basis	$ 0.20			
		Contract Offer	$ 4.70			
Acres		25				
bu/acre		200				
est. production, bu		5,000				
pre-harvest mkt		1.00				
pre harvest bushels		5,000				
contract spec, bu		5,000				
contracts to hedge		1.0				
contract month		December	Options exp	11/26/2021	Contract exp	12/14/2021

What if I'm right: 4.28/bu

Buying Puts								
	Pre-delivery							
		December	C	trading at		$4.55000		
		Buy Puts	1	December	C	$4.50	-$0.4063	($2,031.25)
	At delivery							
		December	C			$3.80		
		Sell Puts	1	December	C	$4.50	$0.7000	$3,500.00
		Profit(loss)					$0.2938	$1,468.75
		Commission ($50/contract)						($50.00)
		Net profit (loss) from trade						$1,418.75
		Basis at delivery				$0.2000		
		Sell	5,000	bushels		$4.00000		$20,000.00
		Net grain sales						$21,418.75
		Average price per bushel						$4.28375

Texas A&M AgriLife Extension

Corn	C		Futures		Strike	Premium
prices in $/bushel		Current	$ 4.5500	At the money put	$ 4.50	$ 0.40625
		Harvest	$ 5.80	At the money call	$ 4.50	$ 0.45625
		Basis	$ 0.20			
		Contract Offer	$ 4.70			
Acres		25				
bu/acre		200				
est. production, bu		5,000				
pre-harvest mkt		1.00				
pre harvest bushels		5,000				
contract spec, bu		5,000				
contracts to hedge		1.0				
contract month		December	Options exp	11/26/2021	Contract exp	12/14/2021

What if I'm wrong: 5.58/bu

Buying Puts								
	Pre-delivery							
		December	C	trading at		$4.55000		
		Buy Puts	1	December	C	$4.50	-$0.4063	($2,031.25)
	At delivery							
		December	C			$5.80		
		Sell Puts	1	December	C	$4.50	$0.0000	$0.00
		Profit(loss)					-$0.4063	($2,031.25)
		Commission ($50/contract)						($50.00)
		Net profit (loss) from trade						($2,081.25)
		Basis at delivery				$0.2000		
		Sell	5,000	bushels		$6.00000		$30,000.00
		Net grain sales						$27,918.75
		Average price per bushel						$5.58375

Put: right to sell; Call right to buy

Basic Option Strategies

	PUT	CALL
	Buy	Sell
	Sell	Buy

Put: right to sell; Call: right to buy

Call Option Example

Underlying commodity: Pizza

Strike Price: $10.99

Expiration Date: when the coupon expires

Premium: free

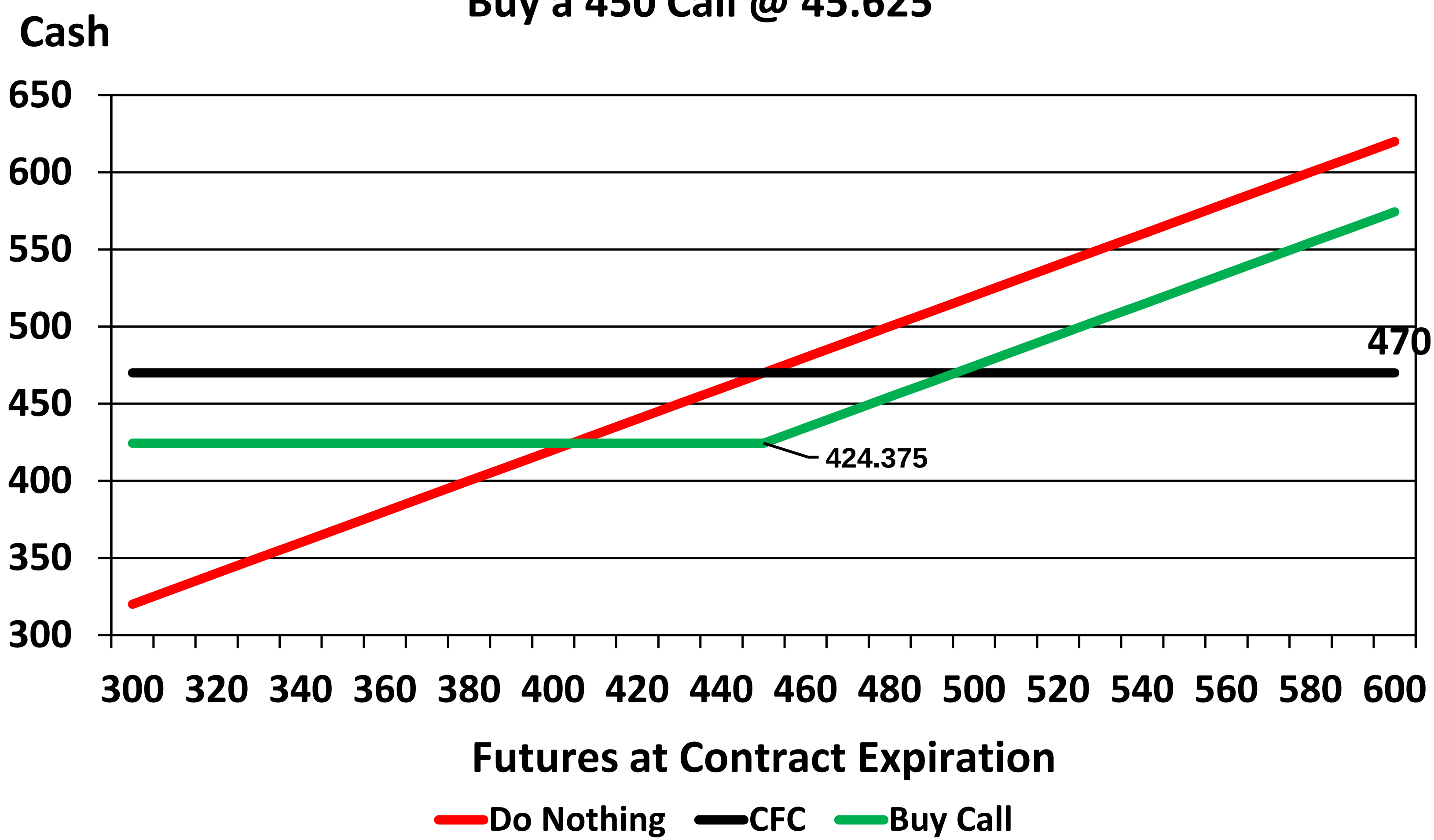
TEXAS A&M AGRILIFE EXTENSION

Marketing Strategies

Do Nothing, Cash Forward Contract, CFC and Buy a Call

Futures @ 455, CFC @ 470, Expected Basis = +20

Buy a 450 Call @ 45.625



CFC and Buy a Call floor = contract price minus call premium

CFC and Buy a Call floor = 470 – 45.625 = 424.375

Texas A&M AgriLife Extension

Corn	C		Futures		Strike	Premium
prices in $/bushel		Current	$ 4.5500	At the money put	$ 4.50	$ 0.40625
		Harvest	$ 3.80	At the money call	$ 4.50	$ 0.45625
		Basis	$ 0.20			
		Contract Offer	$ 4.70			
Acres		25				
bu/acre		200				
est. production, bu		5,000				
pre-harvest mkt		1.00				
pre harvest bushels		5,000				
contract spec, bu		5,000				
contracts to hedge		1.0				
contract month		December	Options exp	11/26/2021	Contract exp	12/14/2021

What if I'm right:

4.23/bu

Cash Forward Contract and Buy a Call								
	Pre-delivery							
		December	C	trading at		$4.55000		
		Cash forward contact offer				$4.7000		
		Implied basis				$0.1500		
		CFC	5,000	bushels		$4.7000		$23,500.00
		Buy Calls	1	December	C	$4.50	-$0.4563	($2,281.25)
	At delivery							
		December	C	trading at		$3.80		
		Sell Calls	1	December	C	$4.50	$0.0000	$0.00
		Profit(loss)					-$0.4563	($2,281.25)
		Commission ($50/contract)						($50.00)
		Net profit (loss) from trade						($2,331.25)
		Basis at delivery				$0.20		
		Sell	0	bushels		$4.00		$0.00
		Sell	5,000	bushels		$4.7000		$23,500.00
		Net grain sales						$21,168.75
		Average price per bushel						$4.23375

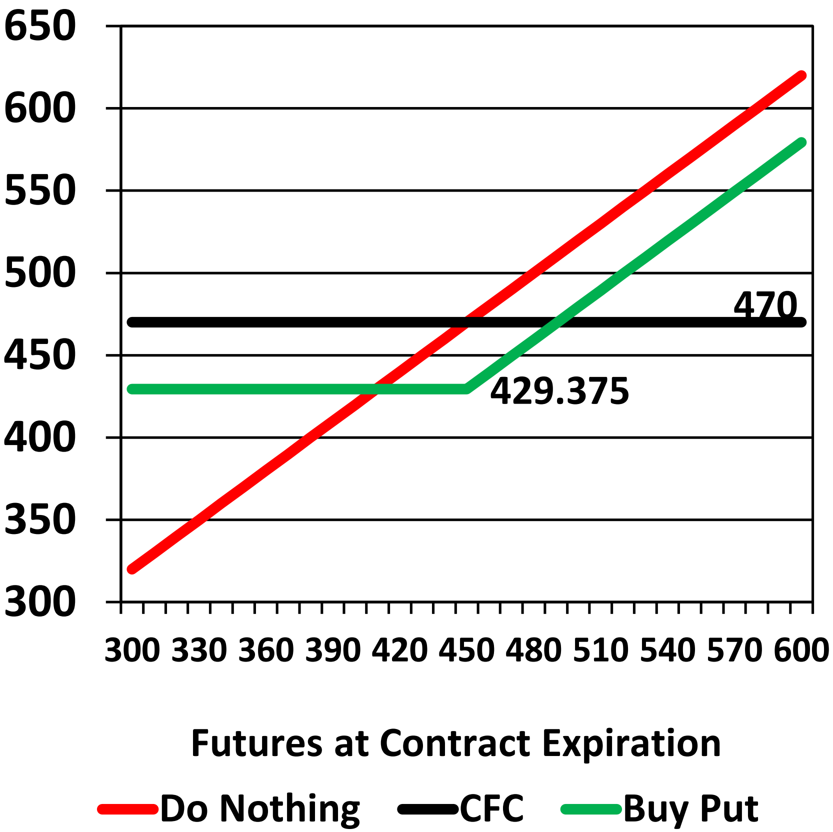
What if I’m wrong: 5.53/bu

Corn	C		Futures		Strike	Premium
prices in $/bushel		Current	$ 4.5500	At the money put	$ 4.50	$ 0.40625
		Harvest	$ 5.80	At the money call	$ 4.50	$ 0.45625
		Basis	$ 0.20			
		Contract Offer	$ 4.70			
Acres		25				
bu/acre		200				
est. production, bu		5,000				
pre-harvest mkt		1.00				
pre harvest bushels		5,000				
contract spec, bu		5,000				
contracts to hedge		1.0				
contract month		December	Options exp	11/26/2021	Contract exp	12/14/2021

Cash Forward Contract and Buy a Call							
Pre-delivery							
	December	C	trading at		$4.55000		
	Cash forward contact offer				$4.7000		
	Implied basis				$0.1500		
	CFC	5,000	bushels		$4.7000		$23,500.00
	Buy Calls	1	December	C	$4.50	-$0.4563	($2,281.25)
At delivery							
	December	C	trading at		$5.80		
	Sell Calls	1	December	C	$4.50	$1.3000	$6,500.00
	Profit(loss)					$0.8438	$4,218.75
	Commission ($50/contract)						($50.00)
	Net profit (loss) from trade						$4,168.75
	Basis at delivery				$0.20		
	Sell	0	bushels		$6.00		$0.00
	Sell	5,000	bushels		$4.7000		$23,500.00
	Net grain sales						$27,668.75
	Average price per bushel						$5.53375

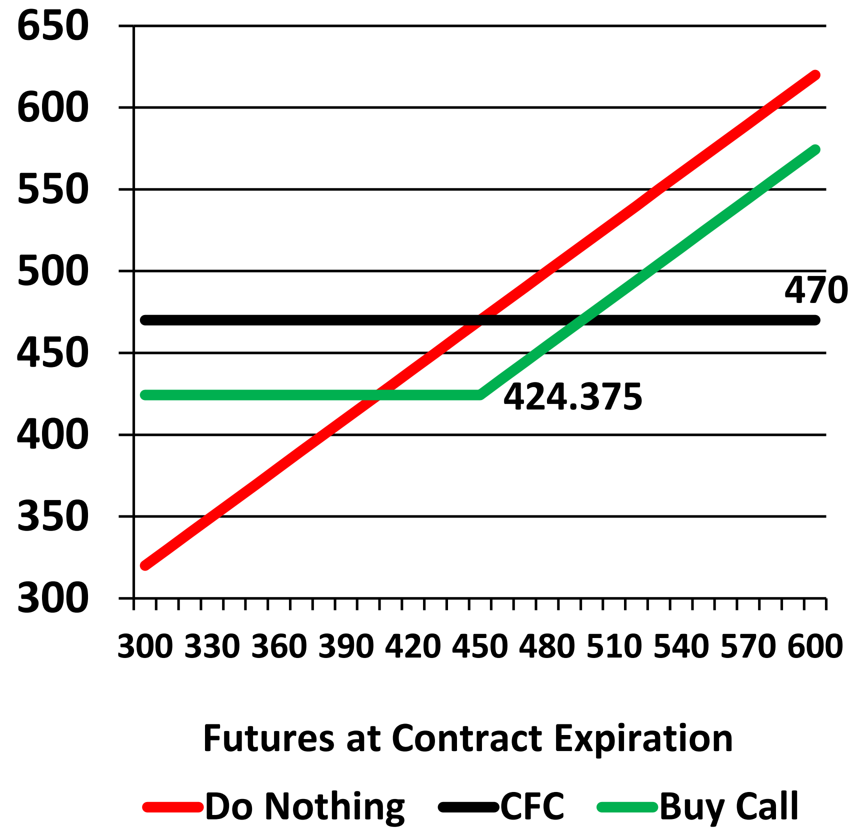
Establish a Price Floor

Buy Put



Basis open

CFC and Buy Call



Locks in the basis

Factors to be Considered when Buying Options

- Buyer must decide strike price/premium
- Buyer must decide whether or not to exercise

Buying Put Options

- Effectively creates a minimum price contract
- Never the most profitable strategy
- Limits losses if prices go down
- Gains are unlimited if prices go up
- Expensive

Futures or Options?

- Use options in markets likely to be characterized by large and sustained price moves
- Use options when there will be problems in arranging financing for a margin line
- Use options when the ability to manage a selective hedging program is questionable

Where are we?

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