(Lecture notes for the Week 3 First Session, Monday, 2/24/14)

Introductory Pricing/Marketing Workshop for Grains, On-Line

Question

"Price at 4.70 basis on 2014 December futures"

What are they calling for?

Why? Strategy

Review

Commodity Options

Continue with

More on Commodity Options

New

Two more Pricing Tools

Dec 2014 Corn Futures

Farm Commodity Markets Update Meeting,
Grains @ 10 a.m., Jim Hilker, MSUE, AFRE
Dairy @ 10:45 a.m. ish, Chris Wolf, MSUE, AFRE

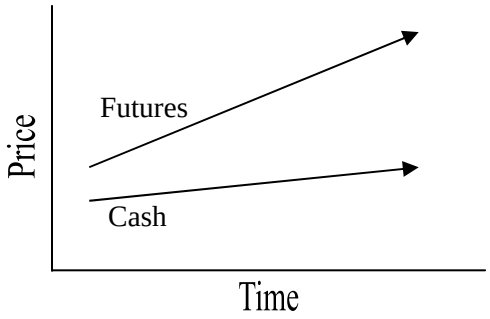
People can log in at:
https://connect.msu.edu/aabifirm
Start time 10 am EST
Wrap up by Noon
Coordinated by Dennis Stein, MSUExtension
Farm Business Management Educator

(First time out, hope to tape it as well)

Pricing Decision Chart for Cash Product Sellers

ACTION

1. Basis Contract
2. Sell Cash, Buy Futures
3. Sell Cash, Buy Call
4. Forward Contract, Buy Call
5. Minimum Price Contract

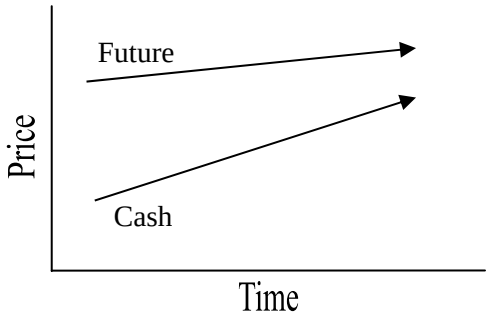


Futures: *Now* *(Later)*

Basis: *(Now)* *Later*

ACTION

1. Store Cash
2. Delayed Pricing
3. Store Cash, Buy Put
4. Minimum Price Hedge-to-Arrive



Futures: *Now* *(Later)*

Basis: *Now* *(Later)*

Futures-Up

Basis-Weakening

You like the basis now, so you'll CALL it

Expected Change for Futures and Basis

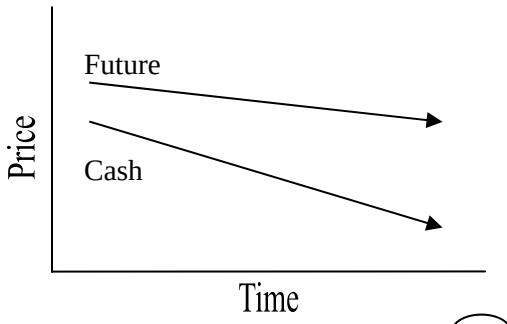
Basis-Strengthening

You like the basis long-term (later), so you better PUT a ring on it

Futures-Down

ACTION

1. Sell Cash
2. Forward Contract
3. Sell Cash, Buy Call
4. Forward Contract, Buy Call
5. Minimum Price Contract

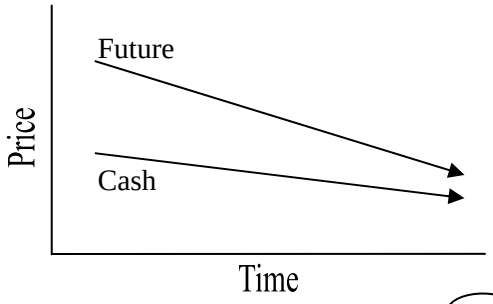


Futures: *(Now)* *Later*

Basis: *(Now)* *Later*

ACTION

1. Hedge (Store Cash, Sell Futures)
2. Hedge-to-Arrive
3. Store Cash, Buy Put
4. Minimum Price Hedge-to-Arrive



Futures: *(Now)* *Later*

Basis: *Now* *(Later)*

CALL OPTION

A contract that gives the holder the

right to buy at a specified price

"To call from them"

PUT OPTION

A contract that gives the holder

the right to sell at a specified price

"To put it on them"

OPTION BUYER
(HOLDER)

THE PERSON WHO OBTAINS THE

RIGHTS CONVEYED BY THE OPTION

OPTION SELLER
(GRANTOR OR WRITER)

THE PERSON WHO SELLS THE

OPTION AND GRANTS THE RIGHTS

CONTAINED IN IT

EXERCISE
OR
STRIKE PRICE

THE SPECIFIED PRICE AT WHICH THE OPTION PURCHASER MAY BUY OR SELL THE COMMODITY

OPTION PREMIUM

THE MARKET VALUE
OF THE OPTION.

IN EFFECT, THE PRICE OF
THE "INSURANCE"

July 2014 Corn Futures and Options

February 24, 2014

July 2014 Corn Futures $4.6225 (4.62 ¼)

July 2014 Corn Option Premiums

	Calls	Strike Prices	Puts
	.57'1	4.10	.05'0
	.49'1	4.20	.07'0
	.41'7	4.30	.09'6
	.35'1	4.40	.13'0
	.29'2	4.50	.17'0
(.24)	.24'0	4.60	.21'6 (.21 ¾)
(.19 ½)	.19'4	4.70	.27'2 (.27 ¼)
	.15'6	4.80	.33'4
	.12'5	4.90	.40'2
	.10'1	5.00	.47'6
	.08'1	5.10	.55'6

FACTORS AFFECTING PREMIUMS

- DIFFERENCE BETWEEN THE STRIKE PRICE OF THE OPTION AND THE PRICE OF THE UNDERLYING COMMODITY

- LENGTH OF TIME TO EXPIRATION

I.V. **INTRINSIC VALUE** in never negative

"POSITIVE" DIFFERENCE BETWEEN STRIKE PRICE AND UNDERLYING COMMODITY PRICE

F 5.10 - negative 10¢ I.V. = zero
S.P. 5.00 +.10
F 4.90

FOR A PUT - STRIKE PRICE EXCEEDS FUTURES PRICE
right to sell

F. 5.10 +.10 Positive so I.V. = 10 cent
S.P 5.00
F 4.90 - .10

FOR A CALL - STRIKE PRICE BELOW FUTURES PRICE
right to Buy

I.V. = 0

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right to Buy — Calls — In the money — out of the money

Puts — right to sell — out of money — In the money

F 4.62 1/4
S.P 4.60 +.02 1/4 I.V.

S.P 4.70
F 4.62 -.08 I.V.=0

F 4.62 1/2 = I.V.=0
S.P 4.60

S.P. 4.70
F 4.62 1/2 = +7 3/4 I.V

OPTIONS THAT ARE SAID TO BE:

"IN-THE-MONEY"

HAVE INTRINSIC VALUE

Nearest to the Money
"At-the-Money" SR 4/60 + Fut 4.60

"OUT-OF-THE-MONEY"

HAVE NO INTRINSIC VALUE

TIME VALUE

pretty few risks

PORTION OF OPTION PREMIUM RESULTING FROM LENGTH OF TIME TO EXPIRATION

- USUALLY TIME VALUE DECREASES WITH LENGTH OF TIME UNTIL EXPIRATION

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Calls		Strike Prices	Puts
	.57'1	4.10	.05'0
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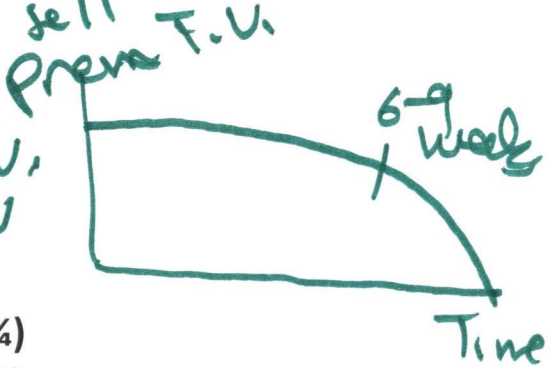


EXERCISE AN OPTION

TO CONVERT AN OPTION CONTRACT TO

A POSITION IN THE FUTURES MARKET

MONEY FLOWS

Holding a soybean $7.00 put purchased for a $0.15 premium

EXERCISE

Current futures price is $6.50

Receive a short (sell) futures market position at $7.00

Buy futures at $6.50

RESULT

Futures gain	$0.50
– Original premium paid	–0.15
Net Returns	$0.35

OFFSET AN OPTION

TO SELL AN EXISTING OPTION

CONTRACT IN ORDER TO LIQUIDATE

THE OPTION POSITION

MONEY FLOWS

Holding a soybean $7.00 put purchase(

for a $0.15 premium

net
7.00

OFFSET

S.P. $ 7.00

Current futures price is $6.50

I.V. = .50

Sell option at a $0.60 premium

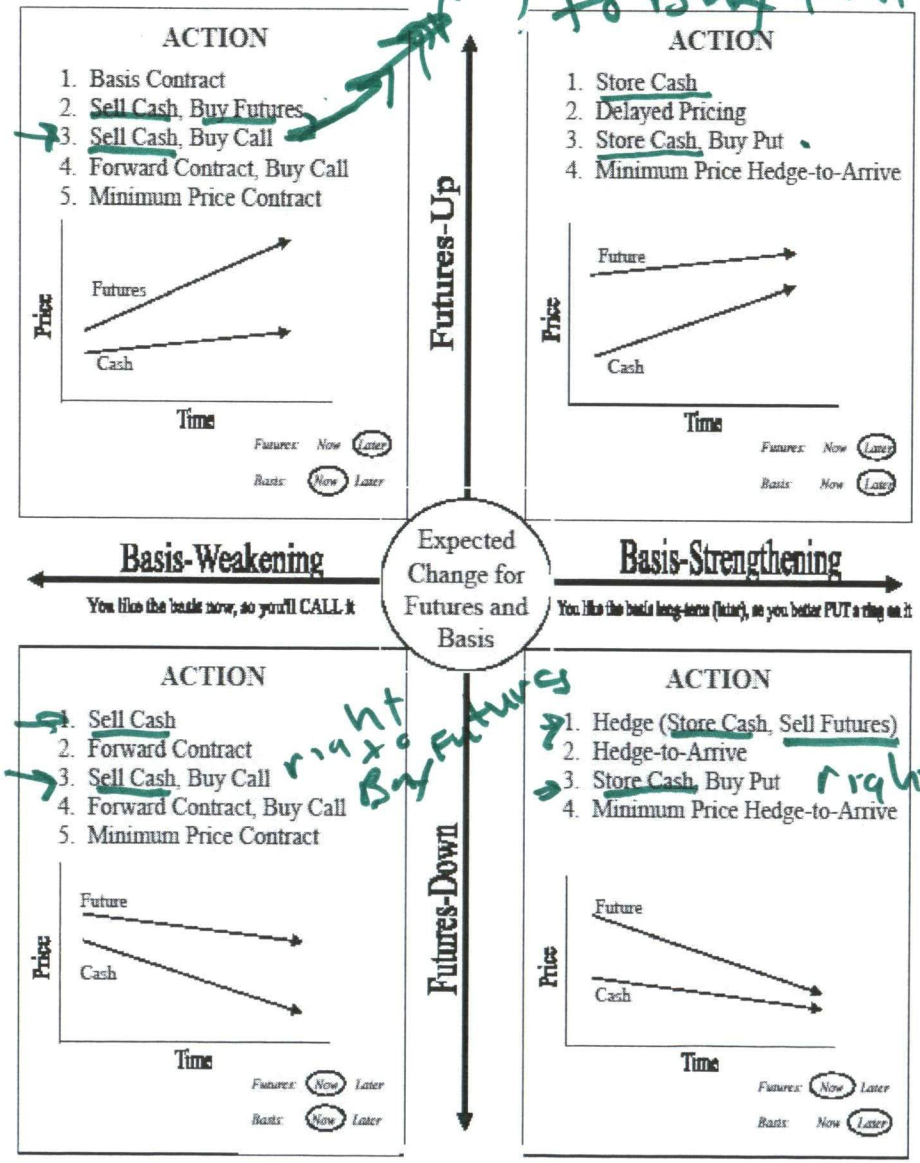
6.50
+ .45
6.95

I.V. .50
T.V. .10

RESULT

Offset premium received	$0.60
– Original premium paid	–0.15
Net returns	$0.45

Pricing Decision Chart for Cash Product Sellers



July 2014 Corn Futures and Options

February 24, 2014

July 2014 Corn Futures $4.6225 (4.62 ¼)

cash Price $4.26 Forward Contract June Delivery $4.37

July 2014 Corn Option Premiums

Calls		Strike Prices	Puts	
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MINIMUM PRICE
Using Put Option
Basis Open

Hedge
Futures 4.62 + Basis -.20
-Str. -.08 -Br. -.01
Hedge Net Price 4.33

Store cash
Buy Put

~~Sell~~ ~~Cash~~
4.26
cash
Price

July (Month, Buy Put)	4.60 (Strike Price)
Expected Basis	-.20
Storage Cost	-.08
→ Put Premium	-.22 ≈ -.21 3/4 → all Time Value
→ Brokerage Cost	-.01
Expected Min. Price	4.09 ← assumes no Time Value

	→ Price up	Prices In-Between	Prices Down
July (Futures Month)	7.00	4.60	3.60
Actual Basis			
Cash Price			
Plus Net Returns from Put Option Buy and Sell			
Less: Storage Costs			
Brokerage Cost			
Equal Net Returns (Cash Price plus Net Returns) Equals Net Price Received			