HEDGING IN FUTURES MARKETS

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A.E. Extension Series No. 90-1

Presented to the
Bingham County Marketing Club
January 16, 1990

HEDGING IN FUTURES MARKETS

Cash Price -- Subject to Substantial Fluctuations

Price Uncertainty Makes Business Decisions Difficult

Cash Forward Contracts Established to Reduce Price Uncertainty

Futures Contracts Evolved From Cash Forward Contracts

Contracts Standardized to Facilitate Use By Hedges and Speculators

HEDGING IN FUTURES CONTRACTS

Hedging - A Method of Dealing With Price Fluctuations

Future Markets - A System That Trades in Future Contracts

Futures Contract - A Contract Calling for Delivery of Specified Kinds and Amounts of the Physical Commodity at a Specified Time and Place

Futures Markets Serve the Function of Any Market -- A Place Where Buyers and Sellers Interact to Establish Price and Exchange Title

Futures Trading Involves Contracts, Not Physical Commodity

Futures Markets are Located at Terminal Markets: **Chicago**
Kansas City
Minneapolis
New York

HEDGING IN FUTURES MARKETS

One Trade, Two Purposes:

1. **Hedging**
2. **Speculating**

Local Grain Elevator

- **Buys Wheat: $3.75/bu**
- **Terminal Market Price Day of Purchase: $3.80**
- **Consigns Grain for Sale at Terminal Market**
- **Price When Grain Arrives: $3.70**
- **Result: $.10/bu Loss**

Hedging Transaction - Grain Buyer

Cash Transactions	Future Transactions
12/1 Buys 5,000 bu Wheat @ $3.75	12/1 Sells 5,000 bu Dec futures @ $3.80
12/8 Sells 5,000 bu Wheat @ $3.70	12/8 Buys 5,000 bu Dec futures @ $3.75

Result: Loss On Cash Grain $.05/bu   Gain On Futures $.05/bu

Net Gain or Loss = $0

Assumption: Cash and Futures Moved Identical --
Spread Remained the Same

HEDGING IN FUTURES MARKET

Hedging Provides Price Protection, But Not Complete Protection

Hedging Shifts Pricing Variability From the Cash Market to Basis

Basis - Normally More Predictable
- Less Variable Than Cash Market

Basis Is the Relationship Between Local Cash Price and Futures Price

Basis = Cash Price - Futures Price

Basis Generally Calculated Relative to Nearby Futures Contract, Can Refer to Deferred Futures Month

HEDGING IN FUTURES MARKET

Hedging - Taking a Temporary and Opposite Position in the Futures Market From the Eventual Cash Position

Grain Producer - Long in Cash Market

Hedges by Selling Futures Contracts
This is Termed Short Hedge

Hedger - Short Hedger Incurs Obligation to Deliver xx Bushels of Wheat of Specified Grade and Quality to a Specified Terminal Market

Contract Settlement - Less Than 1% of Contracts Settled by Delivery

Lifting the Hedge - Any Time Prior to the Contracts Expiration

Lift Short Hedge by Buying Contract of the Same Delivery Month. This Offsets Original Obligation.

Can Settle by Delivery

HEDGING IN FUTURES MARKET

Producer Decisions:
1. How Much to Hedge
2. What Contract Delivery Month

Contracts Are In Discreet Lots
Grain: 5,000 bu
Feeder Cattle: 44,000 lb
Live Cattle: 40,000 lb
Hogs: 30,000 lb

Mini Contracts on Mid-American Exchange
Grain: 1,000 bu

Objective: Avoid Speculative Position
- Over Hedging
- Hedging in Month Preceding Harvest

Strategies:
Hedge Increasing Percentage of Crop as Production Season Progresses

ex. 1/4 before Planting
1/4 at Planting
1/4 after Crop is in Soft Dough
1/4 at Harvest, if Crop is to be Stored

HEDGING IN FUTURES MARKET

Hedging Example #1: Price Decrease and Basis Holds

Assumption: Ignore Question of How Much to Hedge and When to Place and Lift Hedge. Also Ignores Broker's Fees and Margin Calls.

Situation –

Time: Late Spring
Price Objective: $3.00
September Contract: Selling @ $3.65
Normal September Basis: $–.60

Local Cash		Futures	Basis
Exp. Sept.	$3.05	4/10 Sell Sept @ $3.65	$–.60
Actual Sept.	$2.80	9/5 Buy Sept @ $3.40	$–.60
Net	$2.80	$+.25	0

Cash	$2.80
Futures	+ .25
Price	$3.05

The Perfect Hedge!

HEDGING IN FUTURES MARKET

Hedging Example #2: Price Increase and Basis Holds

Assumption: Ignore Question of How Much to Hedge and When to Place and Lift Hedge. Also Ignores Broker's Fees and Margin Calls.

Situation –
Time: Late Spring
Price Objective: $3.00
September Contract: Selling @ $3.65
Normal September Basis: $–.60

Local Cash		Futures	Basis
Exp. Sept.	$3.05		$–.60
		4/10 Sell Sept @ $3.65	
		9/5 Buy Sept @ $3.85	
Actual Sept.			$–.60
Net	$3.25	$–.20	0

Cash	$3.25
Futures	–.20
Price	$3.05

The Perfect Hedge!

HEDGING IN FUTURES MARKET

Hedging Example #3: Price Decrease and Basis Strengthens

Assumption: Ignore Question of How Much to Hedge and When to Place and Lift Hedge. Also Ignore Broker's Fee and Margin Calls.

Situation –
Time: Late Spring
Price Objective: \$3.00
September Contract: Selling @ \$3.65
Normal September Basis: \$–.60

Local Cash		Futures	Basis
Exp. Sept.	\$3.05	4/10 Sell Sept. @ \$3.65	\$–.60
		9/5 Buy Sept. @ \$3.40	
Actual Sept.	\$2.90		\$–.50
Net	\$2.90	\$+.25	\$+.10

Cash	\$2.90
Futures	+.25
Price	\$3.15

Strengthening Basis Increases Price to Short Hedges

HEDGING IN FUTURES MARKET

Hedging Example #4: Price Decrease and Basis Weakens

Assumption: Ignore Question of How Much to Hedge and When to Place and Lift Hedge. Also Ignore Broker's Fee and Margin Calls.

Situation –

Time: Late Spring
Price Objective: $3.00
September Contract: Selling @ $3.65
Normal September Basis: $–.60

Local Cash		Futures	Basis
Exp.	$3.05	4/10 Sell Sept @ $3.65	$–.60
Actual Sept.	$2.70	9/5 Buy Sept @ $3.40	$–.70
Net	$2.70	$+.25	$–.10

Cash	$2.70
Futures	.25
Price	$2.95

Weakening Basis Decreases Price to Short Hedger

HEDGING IN FUTURES MARKET

Considerations:

- Cost of Production
- Contract Size
- Appropriate Commodity
- Broker
- Broker Fees
- Contract Price
- Margin Account
- Margin Calls
- Banker
- Basis
- Cross Hedging
- Speculating