

# MGEX Agricultural Index

# Futures and Options



# **MGEX Agricultural Index Futures and Options**

- Five agricultural indexes futures and options contracts:
  - National Corn Index (NCI)
  - National Soybean Index (NSI)
  - Hard Red Winter Wheat Index (HRWI)
  - Hard Red Spring Wheat Index (HRSI)
  - Soft Red Winter Wheat Index (SRWI)
- Trade electronically e-cbot<sup>®</sup> powered by LIFFE CONNECT<sup>®</sup>
- LAUNCHED DECEMBER 15, 2004



# **Contract features**

- Financially settled (no deliveries) to spot indexes calculated by Data Transmission Network (DTN)
- Represents country-origin pricing for corn, soybeans and wheat
- Exclusively electronic
- All months traded
- Simultaneous expiration of futures and options



# Index futures contract features

### Trading hours:

NCI:	7:30 pm – 1:45 pm (CT) Sun-Fri	
NSI:	7:31 pm – 1:45 pm (CT) Sun-Fri	
SRWI, HRWI, HRSI:	7:32 pm – 1:45 pm (CT) Sun-Fri	
Contract unit:	5,000 bushels	
Contract months:	All 12 calendar months	
Tick size:	1/4 cent per bushel (\$0.0025) or \$12.50 per contract	
Daily price limit:	NCI: 25 cents; NSI: 60 cents; all wheat: 30 cents	
Last trading day:	Last business day of the settlement month	
Settlement:	Financial settlement based on the simple average of the last three daily DTN agricultural index prices published during the settlement month of the futures contract	
Settlement date:	Business day following Last Trading Day	



# Index options contract features

### Trading hours:

NCI:	7:32 pm – 1:45 pm (CT) Sun-Fri	
NSI:	7:33 pm – 1:45 pm (CT) Sun-Fri	
SRWI, HRWI, HRSI	: 7:34 pm – 1:45 pm (CT) Sun-Fri	
Underlying asset:	One MGEX index futures contract	
Contract months:	All 12 calendar months	
Tick size:	1/8 cent per bushel (\$0.00125) or \$6.25 per contract	
Last trading day:	Last business day of the underlying futures settlement month	
Automatic exercise: Based on the index financial settlement, the Clearing House shall automatically exercise all in-the-money options unless notice to cancel automatic exercise is given		
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# **Settlement index features**

- Simple average of country elevator bids collected daily by DTN
- Spot indexes, futures prices, volume open interest, spreads posted daily at www.mgex.com

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# **Index features**

### **Number of Daily Elevator Bids**

HRSI: 230		
SRWI: 350		
HRWI: 430		
NCI: 1,700		
NSI: 1,600		

# "These contracts sound like a dream come true..."

Betsy Jensen, Ag commodity instructor, Northland Community and Tech College



# Hedging with Index futures & options

Better representation of prices at the elevator

Reduced basis risk and cash market divergence

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A more accurate hedge

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# Cash market divergence

•In late 2004, anyone who bought or sold spring wheat learned all about cash market divergence.

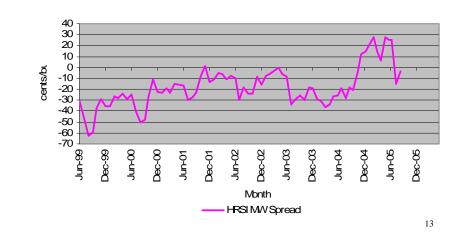
•During this period, cash prices soared to historically high premiums when compared to MGEX spring wheat futures.

•This divergence between cash market prices and futures prices is more often referred to as *basis risk*, and this situation can throw a monkey wrench into even the best-made marketing plans.

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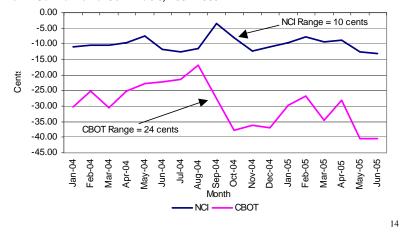


**Cash Market Divergence: Recent examples** 



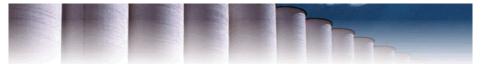


North Central Iowa Corn Basis, 2004-2005



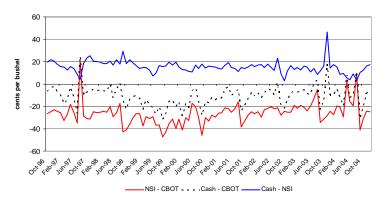


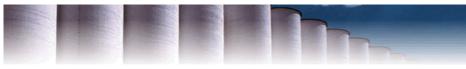
Other examples



Other examples

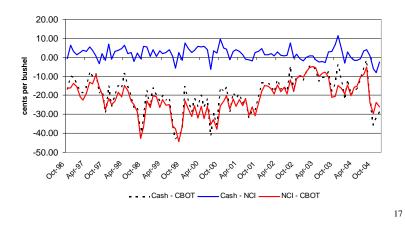
Central Illinois Soybean Basis





### Other examples







When to use traditional deliverable futures vs index futures in a simple hedge



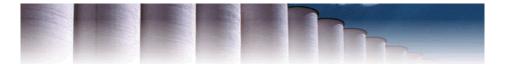
### **Trading strategies**

### Simple pre-harvest hedge

To price ahead, a farmer would sell Index futures contracts or buy an Index put option. This short position offsets the long cash position that will be realized at harvest or through crop insurance.

### Long futures post harvest

That same farmer also could sell cash grain at the local elevator, and then replace that grain on paper by buying Index futures or call options.



Forward pricing scenario 1: Weak local cash price

Strategy: Sell MW futures or buy a put option



### **Example 1: The details**

April 15 Sell MW Sept futures @ \$3.75 Local price = \$3.25 Basis = \$ -0.50

Note: HRSI = \$3.35

August 30

Buy back MWU @ \$3.50 (for gain of \$0.25) Sell crop at local price of \$3.15 (Basis = \$-0.35)

Final price = \$3.40 Note: HRSI = \$3.25

Selling MW futures captures futures price and leaves opportunity for an improvement in the local basis.

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### **Example 2: The details**

<u>April 15</u> Sell August HRSI @ \$3.70 Local price = \$3.60

Note: MW = \$3.75 (Basis MW = -0.15)

August 30 Buy back HRSI @ \$3.25 (for gain of \$0.45) Sell crop at local price of \$3.15

Final price = \$3.60 Note: MW = \$3.50 (Basis MW = \$ -0.35)

Result: Selling HRSI futures captures strong local price.



### Forward pricing scenario 2: Strong local cash price

Strategy: Sell HRSI futures or buy a put

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Replacing cash grain position Scenario 1: Weak local cash price at harvest

### **Strategy**

Buy HRSI futures or buy a call option



### **Example 1: The details**

September 15 Sell crop @ \$3.15 Replace cash position by buying Nov HRSI @ \$3.25 Note: MW = \$3.60 (Basis MW = -0.45)

November 30 Buy back HRSI @ \$3.50 (for gain of \$0.25) Final price = \$3.40 (Cash price of \$3.15 + 0.25) Note: MW = \$3.65 (Basis MW = \$ -0.25)

Result: Buying HRSI futures captures post-harvest strength in cash price.

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Replacing cash grain position Scenario 2: Strong local cash price at harvest

### **Strategy**

Buy MW futures or buy a call option

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### **Example 2: The details**

September 15 Buy Dec MW @ \$3.35 Sell crop @ \$3.25

Note: Basis = \$ -0.10, HRSI = \$3.30

<u>November 30</u> Sell Dec MW @ \$3.70 (for gain of \$0.35) Final price = \$3.60

Note: Basis = -0.30, HRSI = \$3.45

Selling cash captures strong basis, while long MW futures position captures post-harvest gain.



### Spread trade

Particularly effective for farmers who prefer to utilize minimum price contracts or forward contracts.



Example: Synthetic long basis position

Farmer wants to forward contract a portion of his crop, but at the time the local basis is weak.

### Action:

1. Forward contract to lock in a price for the cash grain

2. Buy HRSI futures

3. Simultaneously sell MGEX hard red spring wheat futures

This allows the farmer to create a synthetic basis contract and benefit should the basis recover.

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# **Index Options**



### **Synthetic Basis Contracts**

### Synthetic long basis position

Buy MGEX Index futures and sell deliverable counterpart

### Synthetic short basis position

Sell MGEX Index futures and buy deliverable counterpart

# **Index Options Advantage**

- Study by Dr. Dwight Sanders, assistant professor of agricultural economics at Southern Illinois University.
- MGEX index-based options provide a premium savings of one to four cents (or around 10%) over comparable traditional options.
- This pricing advantage coupled with operational advantages make MGEX options a preferred hedging vehicle in many instances, the study concludes.

### Why the advantage?

### Built in advantage

- Traditional futures prices include a component in their price to transport the product from the elevator to the terminal.
- MGEX Index futures do not include this transportation component, so the futures price is lower and the option premium is lower as well.



### Why the advantage?

### **Operational savings**

•Obtain a better hedge and avoid purchase of unneeded time value.

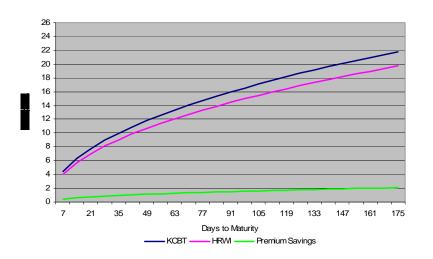
•Index options expire monthly, simultaneous expirations allow growers to more closely match option expiration with cash sales dates.

• Time value is an important component of an option's price, and the further an option is from its expiration, the more it costs.

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KCBT vs. HRWI, Premium Savings at Alternative Time-to-Maturity





### **Example: Corn Options Advantage**

### •March 31, 2004

•CBOT Dec 310 Put Option: 20 <sup>3</sup>/<sub>4</sub> •NCI Oct 290 Put Option: 18 <sup>1</sup>/<sub>2</sub>

•Buy NCI 290 Put Option

### •September 29, 2004

•CBOT: 104 cents, gain of 83 ¼ cents

•NCI: 109 cents, gain of 91 cents

•Result: Trader realized a net gain of 91 cents, 7  $\frac{3}{4}$  cents more than with CBOT corn option



"These contracts sound like a dream come true, but they have yet to catch on with traders."

Betsy Jensen, Ag commodity instructor, Northland Community and Tech College, February 2005 issue of *Prairie Grains Magazine* 





# **MGEX Agricultural Index Futures and Options**

### Current Open Interest Highlights

Contract	Open Interest
NCI Options	1,470
HWI Options	1,350
HRSI Options	145
As of September 15, 2005	



**MGEX Agricultural Index Futures and Options** 

**Recent Trading Volume** 

•First 15 days of September = Average 100 contracts/day

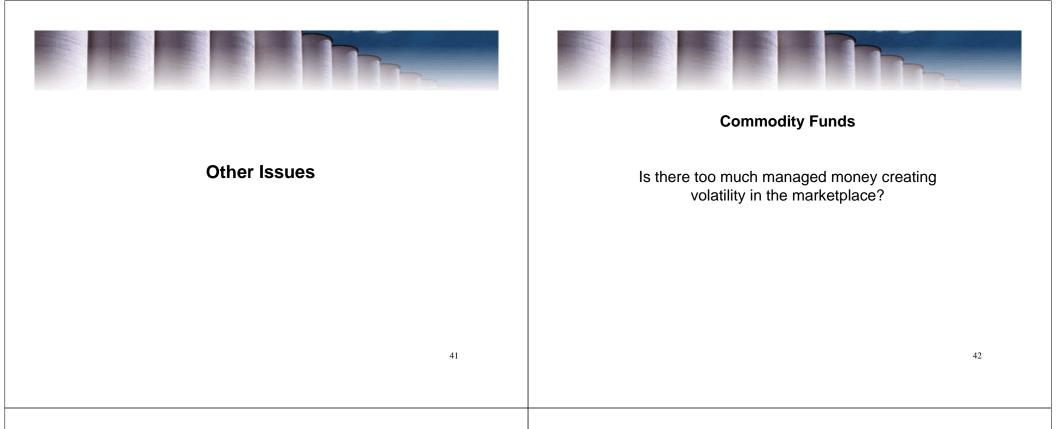
•The momentum has been building...

•August = 500 Contracts

### **Building Interest**

•July = 0

- Real-time streaming quotes free at MGEX.com
- MGEX staff will call market participants to get interest.
- $\bullet$  Two or three cent markets may become  $1\!\!\!/_2$  to 1 cent markets
- Customer service support center. Call for personalized help, including the bid/offer for any MGEX contract. 866-255-MGEX





### **Commodity Funds**

•Not as big an issue in ag as finance, but as pools of money grow they're looking for more different types of opportunities.

- •Ag is seeing more fund activity yearly.
- •However, markets are deeper each year as well.
- •Typically, they look to markets with most liquidity.



### **Fund Misconceptions**

•It's not nearly as bad as it's represented to be.

•Funds place discretionary type orders. They are not getting in and out of the market.

•They roll their position forward as they are trying to replicate an index.



### **MGEX Bottom Line on Funds**

•We welcome the extra liquidity they can provide.

•However, currently MGEX is not part of the mix for any index product.



### **Final notes on MGEX**

- Recent fiscal year represented another year of record volume.
- MGEX traded \$125 billion in commerce.
- Spring wheat market continues to grow.
- Spring wheat crop is biggest North American crop. A lot of room for growth.

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Thank you!

For more information, contact:

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