# Futures Delivery & Load-Out Procedures: Effects on Contract Performance

## Importance of Delivery System

- Critical link to underlying cash market/hedged commodity
- Ensures convergence of cash and futures prices at futures expiration
- Provides an accurate hedge for risk management
- Not a proxy for cash market
- Must mirror cash market practices and commodity flows

## Futures Contract Purpose

- Price discovery and price risk management
- Not physical delivery
- However, Physical Delivery or the Threat of Physical Delivery Assures Cash & Futures Prices "Converge" at the Futures Contract Expiration.
- This Makes Futures an Ideal Hedging Tool

## What Assures Futures Contract Work – Physical Delivery

- Physical Delivery Assures the Spot Price and the Futures Price Converge at Futures Contract Expiration
- If the Futures Price is Above the Spot Price Going Into Futures Delivery
  - Arbitrage Opportunity – Buy in the Spot Market and Sell in the Futures Market
- If the Futures Price is Below the Spot Price Going Into Futures Delivery
  - Arbitrage Opportunity – Buy in the Futures Market, Take Delivery, and Sell in the Spot Market

## Difference Between Delivery & Load-Out

- **Delivery**
  - Exchange between Seller to Buyer of a Financial Delivery Instrument
  - Only Facilities Approved by the Exchange (Regular Firms) may Register and Sell Delivery Instruments; However, a Party Not Regular may Re-Deliver Instruments Previously Bought
  - Buyers of Delivery Instruments Pay Storage to Carry that Instrument Until the Instrument is Re-Delivered, Sold in the Cash Market, or Cancelled for Load-Out
- **Load-Out**
  - The Actual Cancelling of a Delivery Instrument for the Purpose of Placing a Conveyance at the Issuing Facility, and Ordering Load-Out unto Such Conveyance

## Delivery Instruments

- **Shipping Certificate**
  - Call on production rather than inventory
  - Warehouse does not need to have commodity in store
  - Collateral held by the Registrar's Office to ensure delivery
- **Warehouse Receipt**
  - Grain must be in store at the facility
  - Bin soundings and inventory verification needed for registration
  - For rough rice it must be a USDA licensed facility

## Delivery Process

- **Three-day delivery process**

  DAY 1: Position/Intention Day – the day intention is given to the Clearing House that the short is going to deliver against their position

  DAY 2: Notice Day – the day in which the long is notified that they are taking delivery. Also, an invoice is provided by the Clearing House letting each party know the dollar amount of the transaction

  DAY 3: Delivery Day – the Clearing House simultaneously transfers the shipping certificates out of the shorts account and the monies out of the longs account. Storage begins for the long the day following delivery.
- **Key Dates**
  - First Position day – Two business days prior to first delivery day of the current month contract. If a long wishes not to risk taking delivery, they need to close all of their positions prior to the close on this day.
  - First Notice day – One business day prior to first delivery day of the current month contract.
  - First Delivery day – The first business day of the current month contract

## Load-Out Procedures

1. Cancel shipping certificates for load-out in electronic delivery system.
2. Submit written loading orders.
   - "To be nominated" (TBN) barge identities are acceptable loading orders
   - Orders received before 2:00 pm on day of cancelation are considered same day.
   - Orders received after 2:00 pm on day of cancelation are considered dated the following day.
   - When orders are received before 2:00 pm the shipper will advise the taker by 10:00 am the following day of the scheduled loading dates and tonnage due.
3. From this point the shipper has three days to begin loading.
4. The owner can request to have the Federal Grain Inspection Services provide official weights and grades at load-out, if available. This would be at the owner's expense. The warehouseman is not responsible for non-availability of these services

5. Once loading begins, the shipper has to load at its minimum daily rate of loading until all shipping certificates have been loaded.
6. Once all certificates have been successfully loaded the shipping station notifies the Registrar's Office. At that time, any collateral backing the loaded certificates may be released.
7. Storage stops when load-out is complete

## Practical Applications of Delivery

### Delivery Economics

Very few positions result in delivery (typically 2 percent or less). Despite few deliveries on most contract expirations, the purpose of the delivery instrument is to tie together the futures with the cash market and drive convergence between futures and cash prices. However, if the storage rate paid by holders of futures shipping certificates does not match or exceed the true cost to store a physical commodity, futures and cash will not converge no matter how many deliveries.

### Value of Storage Space

**Grain Bin Empty**

- Space Not Generating Return
- Value of Space is Low
- Raise Bids to attract Stocks

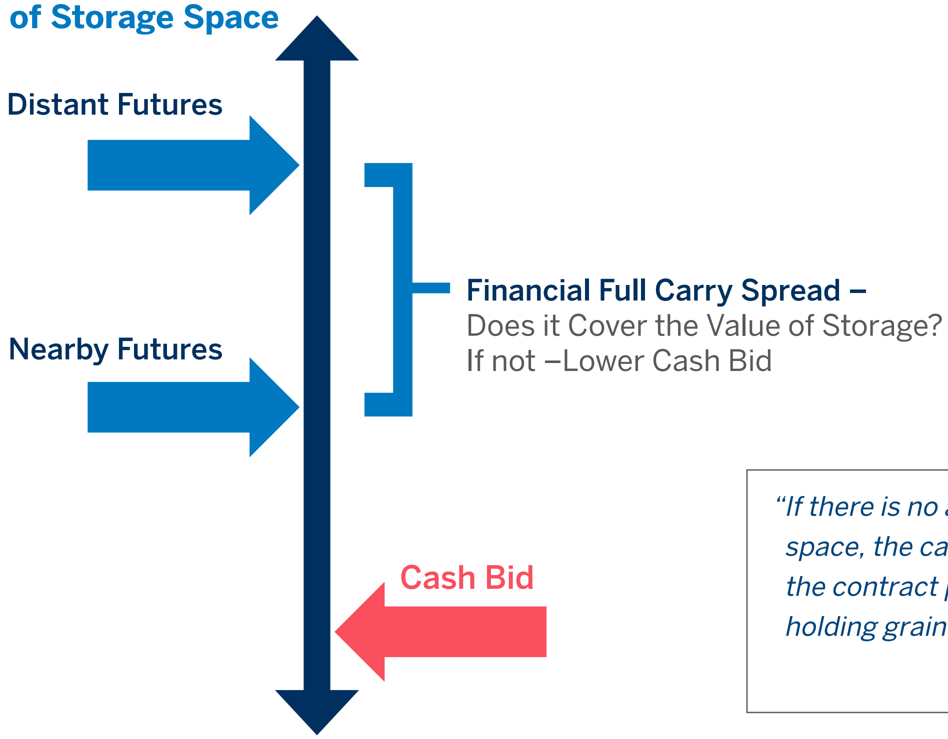
**Grain Bin Full**

- Additional Stocks cause Lost Opportunity
- Value of Space is High
- If Spreads do not Reflect Value of Storage, Lower Bids to Stop Incoming Flow
- No New Stocks unless Return Compensates for Value Lost

*"...the nearby basis and spreads boil down to the supply of and demand for space. When stocks at the terminal are large and grain is flowing to market rapidly, the cash price is weak in relation to the nearby future and spreads are wide. But when stocks are small, the commodity is flowing to market slowly, and demand for shipment is vigorous, the price of storage decreases."*

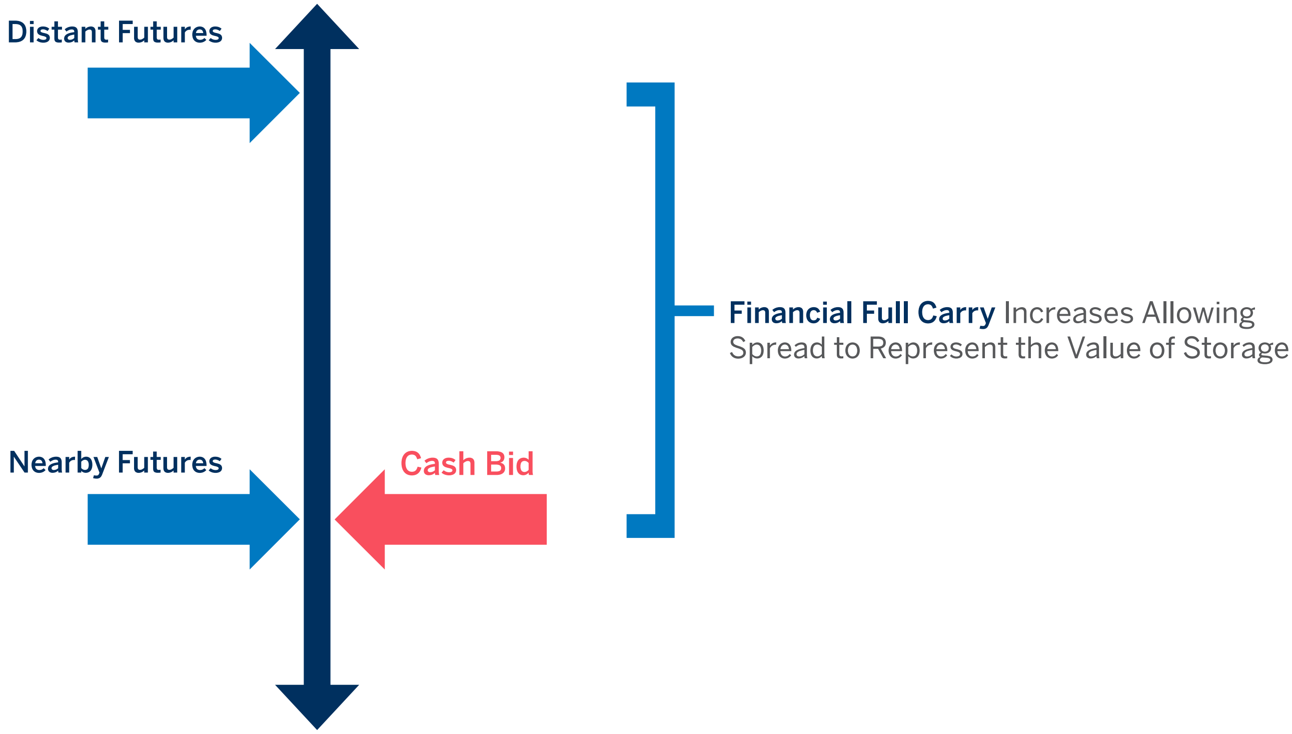
*– Tom Hieronymus*

## Value of Storage Space




> *"If there is no available warehouse space, the cash price may be below the contract price by the cost of holding grain until space is available."*
>
> *– Tom Hieronymus*

## Increase Storage Charge



## Delivery Locations and Costs

| Zone | Shipping Station | Mile Marker | Futures Location Differential (¢/bu) | Implied Cash Value at 300 Percent Barge Rate | Difference |
|---|---|---|---|---|---|
| 1 | Burns Harbor, IN | ILR 355 | par | Par | 0 |
| | Chicago, IL | ILR 327 | par | Par | 0 |
| 2 | Lockport, IL | ILR 291 | +2 | +4 | -2 |
| | Morris, IL | ILR 272 | +2 | +4 ½ | -2 ½ |
| | Seneca, IL | ILR 253 | +2 | +4 ½ | -2 ½ |
| 3 | Ottawa, IL | ILR 240 | +2 1/2 | +6 | -3 ½ |
| | Utica, IL | ILR 229 | +2 1/2 | +6 | -3 ½ |
| | La Salle, IL | ILR 223 | +2 1/2 | +6 | -3 ½ |
| | Peru, IL | ILR 223 | +2 1/2 | +6 | -3 ½ |
| | Spring Valley, IL | ILR 218 | +2 1/2 | +6 | -3 ½ |
| | Hennepin, IL | ILR 207 | +2 1/2 | +6 | -3 ½ |
| | Henry, IL | ILR 196 | +2 1/2 | +6 | -3 ½ |
| | Lacon, IL | ILR 189 | +2 1/2 | +6 | -3 ½ |
| 4 | Chillicothe, IL | ILR 180 | +2 1/2 | +6 | -3 ½ |
| | Peoria, IL | ILR 158 | +3 | +8 | -5 |
| | Creve Coeur, IL | ILR 158 | +3 | +8 | -5 |
| | Pekin, IL | ILR 152 | +3 | +8 | -5 |

## Concentrated Delivery

- Barge Freight is Seasonal
- Delivery Differentials based on Average Freight would make the Cheapest to Deliver Point on the Upper River for Half of the Year and on the Lower River the Other Half
- Basis is more Stable with Concentrated Delivery

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