

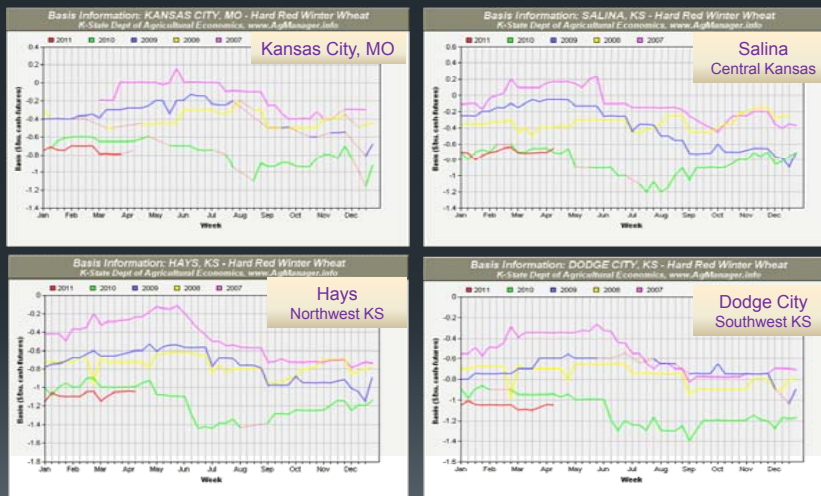
The Feasibility of Railcar Track Delivery as an Alternative Settlement Option for KCBT Wheat Futures

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Study Objectives

- 1) Describe potential Track Delivery procedures for KCBT wheat futures
- 2) Examine impact of Railcar rates, regulations & procedures on Track Delivery processes
- 3) Analyze recent convergence of HRW Wheat cash-futures & impact on local basis levels
- 4) Determine how Track Delivery would have performed in U.S. HRW wheat regions

Kansas HRW Wheat Basis Trends 2007-2011



Factors Affecting HRW Wheat Basis

- A. Price Volatility:** Increasing costs of managing grain price volatility risk for local grain elevators
- B. Supply-Demand Factors:** Growing supplies of wheat relative to export, milling & feed use over 2007-2011 period
- C. Nonfunctioning KCBT Delivery Mechanism:** Inefficiencies or “blockages” in the futures delivery mechanism designed to bring about cash-futures convergence

Inability to Deliver on KCBT Wheat

- **Warehouse Receipt Unavailability:**
 - Required warehouse receipts were not being provided by designated delivery point elevator locations in 2010
 - Short sellers have no other means of physically delivering wheat against KCBT futures
- **Consequences...**
 - Lack of a “credible threat” to long futures position holders of actually receiving or taking physical delivery
 - Lack of functioning market arbitrage processes to force cash-futures convergence & narrowing of basis
 - **Warning:** Market impact of “jammed” KS terminals?!?!

“Niche” for KCBT Track Delivery

- **Physical delivery** could still be possible when regular delivery elevators are unwilling to issue warehouse receipts for KCBT wheat deliveries
 - HRW wheat delivered directly by railcar to KC MO/KS
 - No warehouse receipts from delivery elevators needed
- **TrkDry “Niche”:** Likely used when regular delivery elevators have limited available storage space
 - Deliveries could still occur when Elevators are avoiding risk of accepting delivered wheat & of “tying up” storage space (if wheat not marketed in a timely manner)
 - Elevators desire not to “lose control” of their facilities

KCBT Eliminated Track Delivery for Wheat Starting with May 1999 Option

“...the Wheat Contract and Rules Committees feel that the track delivery provisions are outdated and impractical.”

“The main cause of the ineffectiveness of the track delivery provisions has been the sweeping changes in the railroad industry in the last 15 years.” Oct. 28, 1998 KCBT letter to CFTC

- **Staggers Rail Act of 1980**
 - Railroads allowed flexibility to adjust rates & services to meet shippers needs & RRs revenue requirements
 - Billing @ origination of shipment (not destination)

Track Delivery: An Arbitrage Process

- 1) KCBT wheat short sellers indicate intention to physically deliver HRW wheat via Track Delivery
 - Longs (buyers) may then *offset* (sell futures) **or** *take delivery*
 - 2) Longs typically *offset* by selling KCBT wheat futures
 - 3) KCBT then **“retenders”** – reassigns the new short Track Delivery position to the next “in line” long position holder
 - 4) Offsetting & retendering repeatedly occurs until...
 - Lead futures price is reduced (from repeated selling)
 - Cash (rail\$) & futures converge (no benefit in offsetting again)
 - Wider lead/1st deferred month “Spread” (if long “rolls” forward)
- ☐ “Credible threat” of physical delivery motivates longs to liquidate positions before getting delivery notice

Track Delivery Specifications (proposed)

- A. Freight Basing Point (Delivery Location): Kansas City
- B. Origination Locations
 - Any KCBT member elevator outside of Kansas City MO/KS capable of making weights & grades
- C. Retendering Process Allowed
 - Longs can “offset” by selling back long positions
 - Track delivery intention is then reassigned to next long
- D. Required Seller Documents with Delivery Notice
 - Origin, rail carrier, single car tariff rate + fuel surcharge
 - Inspection & Weight Certificates from origination point

Track Delivery Specs (continued)

- E. Delivery Quantity: 10,000 bu (3 railcars)
 - Vs 5,000 bu for regular KCBT contracts & for Warehouse delivery
- F. Settlement
 - 10K bu #2 HRW by futures close \$ on last trading day
 - Reduced by single car tariff rate + fuel surcharges
 - +/- 10% quantity variation tolerance
- G. Free on Board @ Origination Point
 - Seller responsible for cost getting wheat to/on train
- H. Quality Requirements
 - Same as for regular deliveries to Warehouses

Railcar Transportation Issues

- Limited railcar weighing capability at originating country elevators
 - Official weight certificates must be produced at point of origination for Track Delivery
- Rail industry trends are toward handling large shuttle trains (100+ railcars) instead of single cars
 - Regional availability of railcars & seasonal timeliness of service are critical issues
 - Railroads are necessarily involved as a 3rd party in Track Delivery processes (*rates, car availability, timeliness*)

Rail Transportation Cost of Wheat

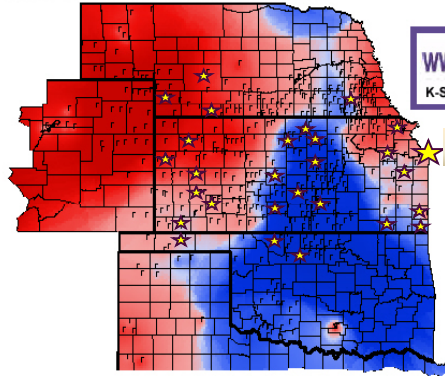
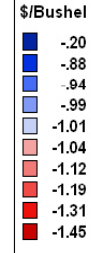
- Monthly rail transportation costs
 - Calculated for 27 Kansas, Oklahoma & Nebraska Grain Elevator Locations for the 2010-2011 period
- Union Pacific (UP)
 - <http://www.uprr.com/customers/ag-prod/index.shtml>
- Burlington Northern Santa Fe (BNSF)
 - <http://www.bnsf.com/customers/prices-and-tools/agricultural/>
- Fuel Surcharges
 - Calculated for both of these major Class I railroads using online mileage & rate resources for 2010-11

Grain Elevator Locations in Study

Wheat Basis, 04-13-2011

Basis = Cash Price - Nearby Futures Price

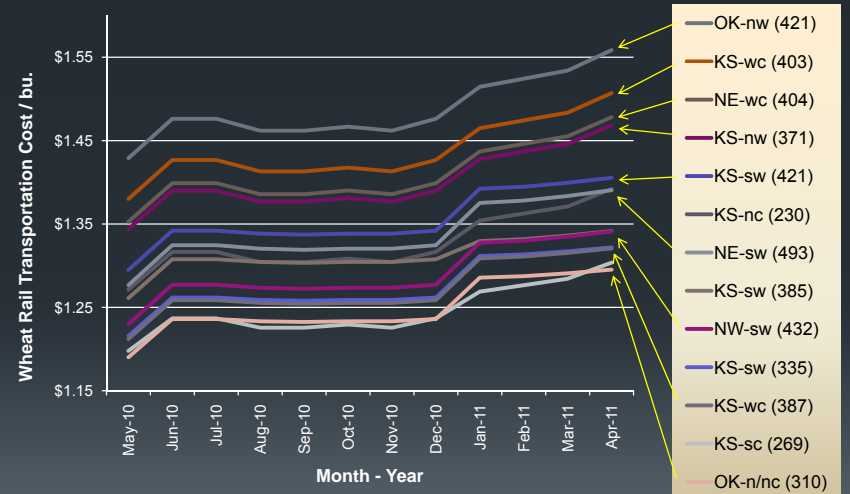
KCBT May
Futures
Price: \$8.85



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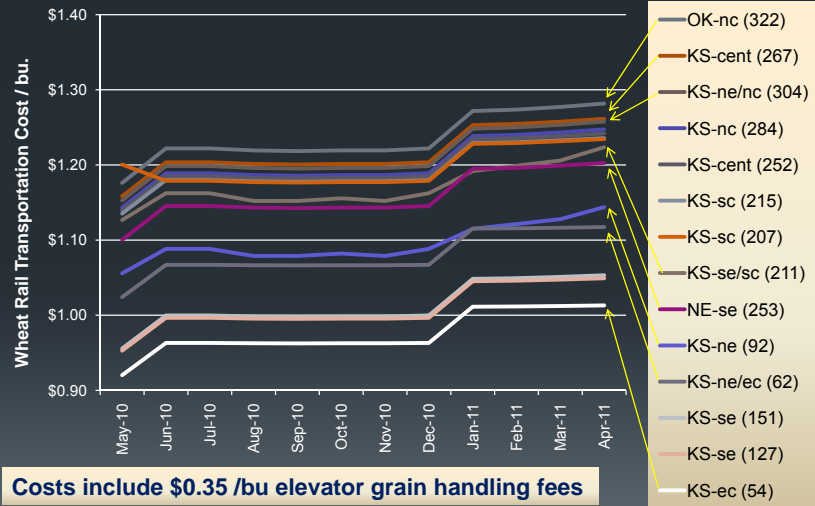
Kansas City

Elevator Wheat Transport Cost (A)



Costs include \$0.35 /bu elevator grain handling fees

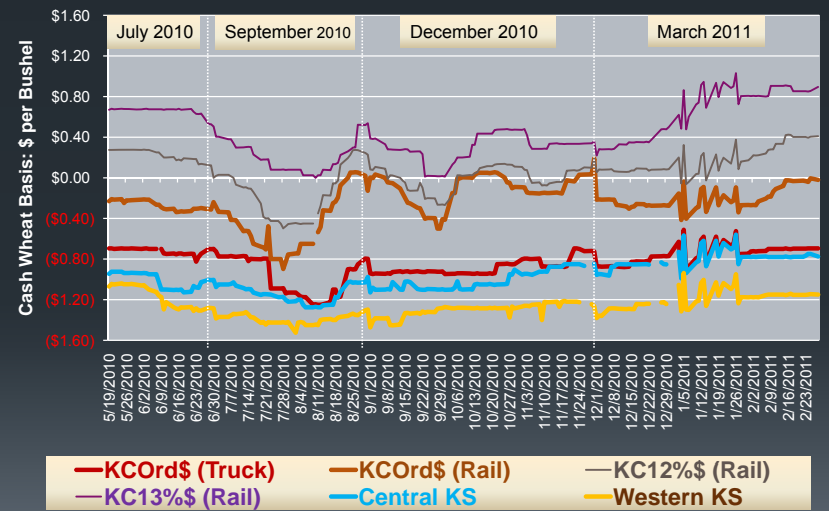
Elevator Wheat Transport Cost (B)



Costs include \$0.35 /bu elevator grain handling fees

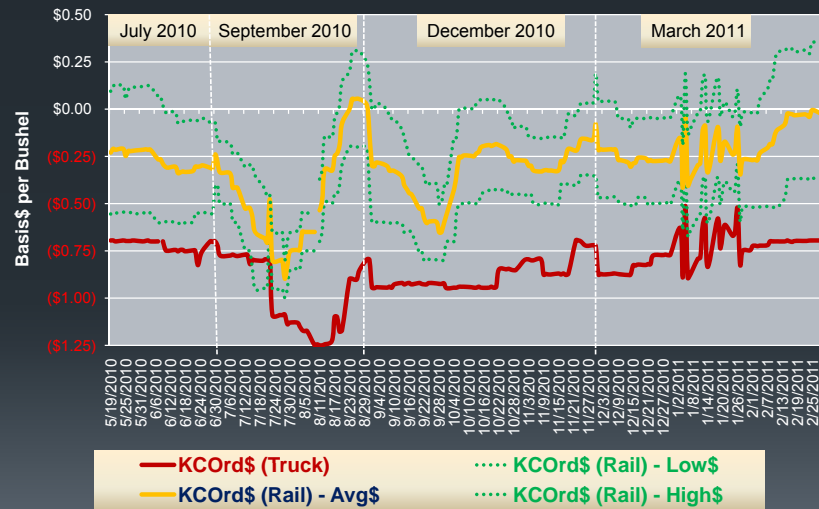
Cash Wheat Basis: KC & Country

May 19, 2010 – Feb. 23, 2011: July-Sep-Dec 2010 & Mar 2011 KCBT Wheat Contracts



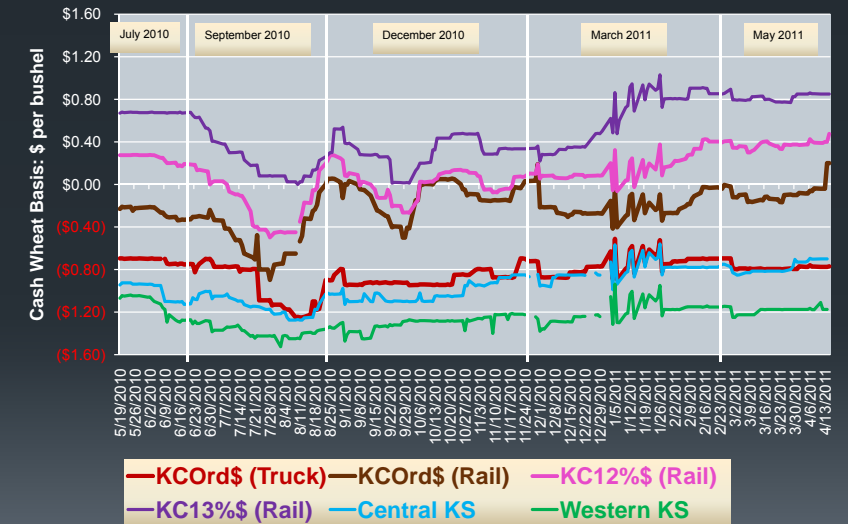
Cash Wheat Basis: KC Rail vs Truck

May 19, 2010 – Feb. 23, 2011: July-Sep-Dec 2010 & Mar 2011 KCBT Wheat Contracts



Cash Wheat Basis: KC & Country

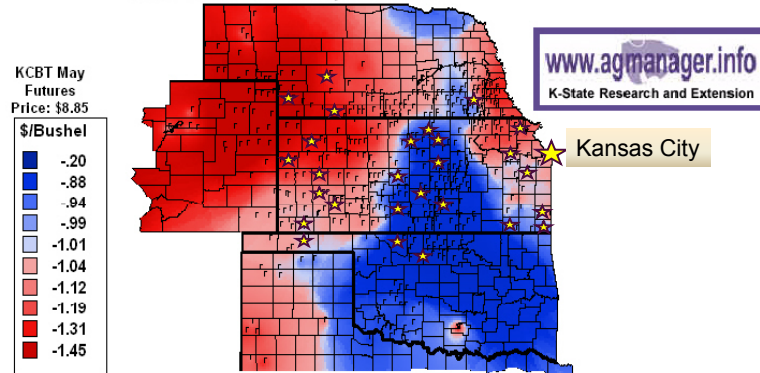
May 19, 2010 – April 15, 2011: July-Sep-Dec 2010 & Mar-May 2011 KCBT Wheat



Grain Elevator Locations in Study

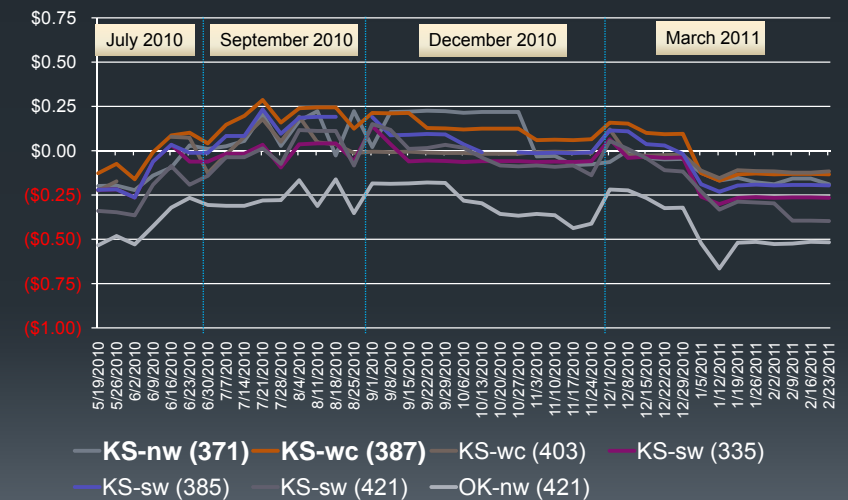
Wheat Basis, 04-13-2011

Basis = Cash Price - Nearby Futures Price

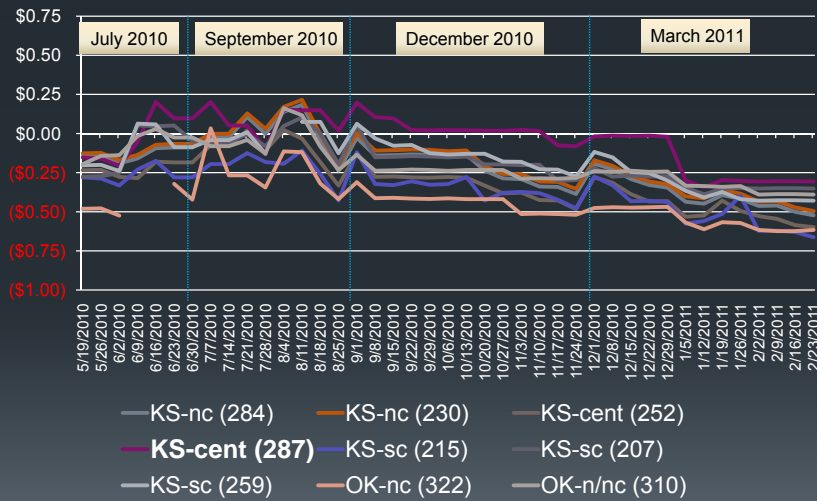


Track Delivery Estimated Profitability

Western Kansas & Oklahoma Selected Locations



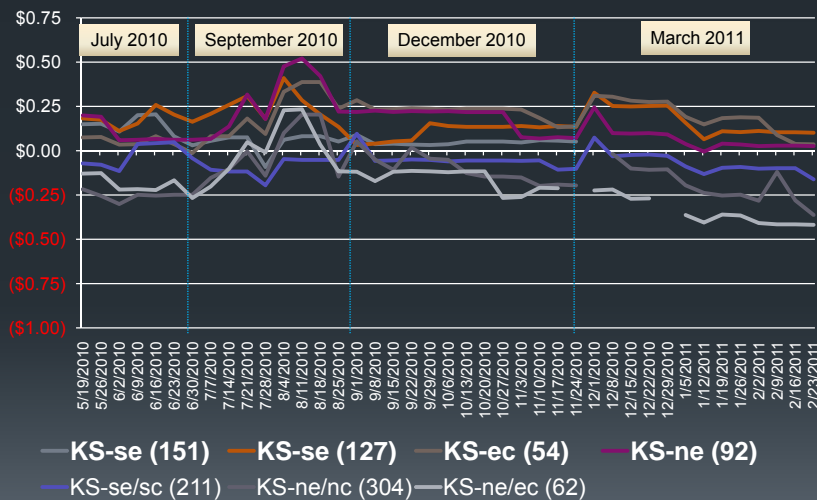
Track Delivery Estimated Profitability Central Kansas & Oklahoma Selected Locations



Summary: Western & Central KS, OK

- Western Kansas & Oklahoma
 - Three (3) of the 7 grain elevator locations analyzed could have profited from Track Delivery
 - ✓ Scott City KS for July-Sept-Dec 2010 (wide basis)
 - ✓ Colby KS for Sept 2010 (wide basis)
 - ✓ Garden City KS for Sept 2010 (wide basis)
- Central Kansas & Oklahoma
 - One (1) of the 9 grain elevator locations analyzed could have profited from Track Delivery
 - ✓ Great Bend KS for July-Sept 2010 (wide basis)

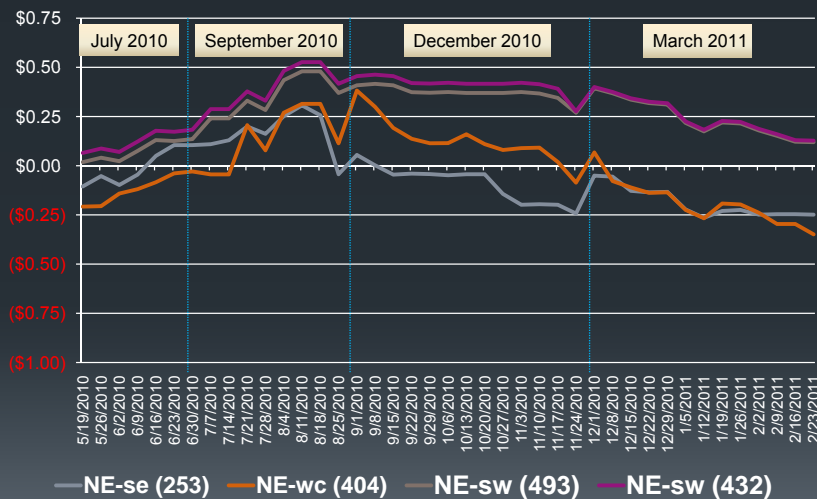
Track Delivery Estimated Profitability Eastern Kansas Selected Locations



Summary: Eastern KS & OK

- Eastern Kansas
 - Four (4) of the 7 grain elevator locations analyzed could have profited from Track Delivery
 - ✓ Hiawatha KS for July-Sept-Dec 2010 & March 2011
 - ✓ Ottawa KS for Sept-Dec 2010 & March 2011
 - ✓ Girard KS for July-Sept-Dec 2010 & March 2011
 - ✓ Columbus KS for July-Sept-Dec 2010 (Mar 2011 na)
 - Low transportation costs combined with moderately wide basis
- Risk/return of Track Delivery if have positive but small returns /bu (risk aversion issue for elevators)

Track Delivery Estimated Profitability Nebraska Selected Locations



Summary: Eastern & SW-WC NE

Nebraska

- All 4 of the 4 grain elevator locations analyzed could have profited from Track Delivery
 - ✓ McCook NE for July-Sept-Dec 2010 & March 2011
 - ✓ Imperial NE for July-Sept-Dec 2010 & March 2011
 - ✓ North Platte NE for Sept 2010
 - ✓ Beatrice NE for July 2010

→ Extremely wide basis levels

Factors in Track Delivery Analysis

- a) Cost of railcar transportation from the originating country elevator to the KC wheat market
- b) Grain elevator operating / handling costs (??)
 - If lower elevator handling costs (from \$0.35 to \$0.25 or \$0.30 /bu) ⇒ + impact @ several elevator locations
- c) Wheat basis at origination point elevators as delivery periods approach for a KCBT wheat
- d) Practical constraints / barriers to Track Delivery
 - Weights & inspections @ local elevators, railcar availability-timeliness, single car vs shuttle trains....

Perspectives re: "Track Delivery"

- Would give an "Extreme Punitive Outer Bound" on cash-futures differentials for HRW Wheat
- Original Purpose of Track Delivery
 - Allows delivery to occur when grain elevators are too full to accept & handle grain (a "pressure release" mechanism)
- Track Delivery differs from Forced Loadout
 - Regular delivery elevators handle wheat in Forced Loadout – but are bypassed / excluded in Track Delivery
 - Are deliveries "open ended" with Forced Loadout? Impacts?
- "Delivery Threat" Effect on Deferred Spreads??
 - Wider lead vs 1st deferred month futures spreads could affect deferred month futures spreads

Conclusions

- Motivation for Study - to understand TrkDlvry
- Potential of Track Delivery to help bring about HRW wheat cash-futures convergence
- A number of critical issues to address before Track Delivery could be adopted
 - Origination elevator roles & responsibilities
 - Key role of railroads in executing TrkDlvry process
 - Weighing financial impact of regular delivery vs Track Delivery on vital grain industry segments

Questions?

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Additional Information

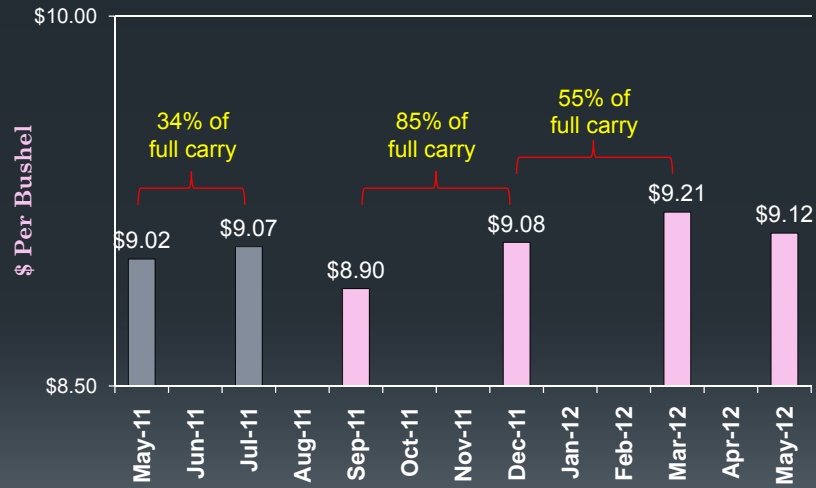
Sept 2010 HRW-Wheat Futures

KCBT: March 15 through September 14, 2011



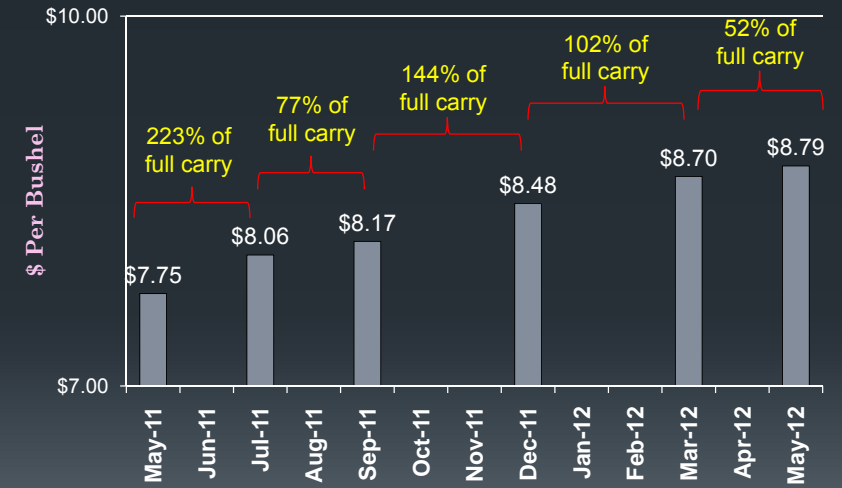
KCBT Wheat Futures

Monthly Carrying Charges: April 18, 2011 (10:55 a.m.)



CBOT Wheat Futures

Monthly Carrying Charges: April 18, 2011 (10:45 a.m.)



MGE Wheat Futures

Monthly Carrying Charges April 18, 2011 (10:35 a.m.)

