Implications of Agricultural Transportation on Farm Income

Dan DeRouchey-GM Berthold Farmers Elevator
Director-NDGDA
NDGDA History

• Formed in 1911 as Farmers Grain Dealers Association of ND
• Represent interests of grain elevators & feed mills in state of ND- Membership>90%
• Grain Handling
• Also Inputs: NH3, Dry and Liquid Fertilizer, Seed, Chemicals
  – Legislative representation Federal level- Congress. 
    *STB, OSHA, EPA, CCC, FDA*
  – Regulatory representation at State level-Legislature. 
    *PSC, WSI, Ag. Dept, NDDH*
  – Operate Bonding Agency, Health Trust, Ed. Foundation
  – Publish Grainman’s Mirror-Monthly, Elevator Directory- Annually
ND Grain Supply Chain

• Nearly 40,000 Farms operating over 39 million acres
• About 300 Elevators\(^\text{Reporting Information}\)
• Market 20 million MT of grain annually
• Shuttle Elevators
  – Account for 18% of Facilities
  – Market 66% of Grain
• Wheats: PNW Export and Domestic Milling
• Soybeans: PNW Export Markets
• Corn: Ethanol, Feed Lots, and Export
Grain production, by weight, has increased about 47% compared to the early 1990s.

ND Grain Production
Corn Acres Shifting

- Filling Ethanol & Export Demand
- Similar Shift Happening w/ Soybean Acres
ND Grain Storage-On Farm

- +20%
- 865 mil bu
ND Grain Storage-Off Farm

(in thousands of bu.)

2002-2012
• +40%
• 357 mil bu
USDA Storage Assessment, 2014

Figure 1: Grain Production, Stocks and Storage

Source: USDA, October 2014

North Dakota Elevator Industry

<table>
<thead>
<tr>
<th>Year</th>
<th>1915</th>
<th>1999</th>
<th>2004</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities</td>
<td>2031</td>
<td>589</td>
<td>405</td>
<td>392</td>
</tr>
<tr>
<td>Shuttle Shippers</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>54</td>
</tr>
<tr>
<td>Top 5 Mkt Share</td>
<td>Unk</td>
<td>9%</td>
<td>12%</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Single Car** – 1 railcar (3,700 bushels or 100 MT)
**Multi Car** – 2-99 cars (<370,000 bu or <10,000 MT)
**Shuttle Train** – 100+ cars (370,000 bu or 10,000 MT)

Shuttle train shippers receive additional incentives if they load all cars in 15-hour period. Many elevators now loading in 8-10 hours. Similar incentive to receiving mill or terminal.

**Share of Annual HRS Shipments**

- **Truck**
- **Single**
- **Multi**
- **Shuttle**

**Shipment Mode**

<table>
<thead>
<tr>
<th>Year</th>
<th>2004</th>
<th>2013</th>
</tr>
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<tbody>
<tr>
<td>Truck</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Single</td>
<td>20%</td>
<td>40%</td>
</tr>
<tr>
<td>Multi</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Shuttle</td>
<td>20%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Rail Shipment Cycle
Competition For Rail Space

- Grain production, by weight, has increased about 47% compared to the early 1990s.
- Oil production shipped by rail, by weight, has increased about 350% compared to 2008.

SOURCE: USDA & EIA

• Containerized Freight, Coal
Full Cost of Transportation

ND Wheat Cost FOB Japan

- Since 2004
  Ocean Freight down 25%
- Rail Freight up 24%
- Total costs from Farm to Asia up 8%

<table>
<thead>
<tr>
<th>Year</th>
<th>Delivered Price Est. (MT)</th>
<th>Delivered Price Est. (Bu)</th>
</tr>
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<tbody>
<tr>
<td>2004</td>
<td>$224.05</td>
<td>$2.51</td>
</tr>
<tr>
<td>2005</td>
<td>$358.94</td>
<td>$2.77</td>
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<tr>
<td>2012</td>
<td>$356.79</td>
<td>$2.70</td>
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<tr>
<td>2014_0</td>
<td>$322.62</td>
<td>$2.66</td>
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<tr>
<td>2014_2</td>
<td>$348.94</td>
<td>$3.45</td>
</tr>
<tr>
<td>2014Nov</td>
<td>$324.68</td>
<td>$2.72</td>
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</tbody>
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Market Risk Management
Market Risk Management

• Understanding available contracts: HTA, Basis Fixed, Cash, AOG, etc.
• Input Purchasing Decisions
• Not using Tax Risk as a Marketing Factor
Market Risk Management

• How will the 2015 crop year change the market dynamics?
• ND production acre change?
• Potential production levels?
• Carryover levels?
• Export Demand?
Questions

• Thanks to Senators Hoeven and Heitkamp, Dr. Won Koo, and NDSU