Impact of Policy on Nebraska’s Agricultural Economy

PRESENTED TO
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Nebraska’s Agricultural Economy

Agriculture’s Importance to Nebraska’s Economic Success

Policy and the Surge In Nebraska Agriculture
  - Subsidies
  - Ethanol
  - Water

Implication of Global Recession for Rural Regions: Examples from Nebraska, USA
Nebraska’s Agricultural Economy

- **Size of the Industry:** $17.3 billion in cash receipts in 2008 (5.3% of U.S. total)
  - Livestock $8.3 billion (5.9%)
    - Cattle ($7.1 billion)
  - Crops $9.0 billion (4.9%)
    - Corn ($5.7 billion)
    - Soybeans ($2.2 billion)

- **Approximately 50,000 farms**

- **Average farm size 953 acres (386 hectares)**

Source: National Agricultural Statistical Services
Nebraska’s Agricultural Economy

- What is the source of Nebraska’s large agricultural output in cattle and row crops?
  - Quality land (deep topsoil)
  - Irrigation water – Ogallala Aquifer

- But, there is another, equally important reason

- Can you guess this reason?
Nebraska’s Agricultural Economy

- **A lack of alternatives** - there are not many other high value uses for the land
- Without much rain, the land is poor for forestry or fruit trees
- And, with low population in the region, there is not much regional demand for
  - vegetables or milk
  - high value specialty crops (flowers, grapes, etc).
  - vacation property
Nebraska’s Agricultural Economy

- But, Agricultural is an Important Part of the Nebraska Economy
  - Agriculture accounted for 6.8% of Nebraska GSP in 2008
  - Farm Income accounted for 5.7% of Nebraska Income in 2008
- The shares are larger when you consider related industries
  - For example, agricultural equipment and food processing account for another 5.5% of GSP
- $6.8\% + 5.5\% = 12.3\%$. Quite a large share for a ‘basic’ industry

Source: U.S. Bureau of Economic Analysis

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Nebraska Farm Income

Billions $}

$0.0  $0.5  $1.0  $1.5  $2.0  $2.5  $3.0  $3.5  $4.0  $4.5

1999  2000  2001  2002  2003  2004  2005  2006  2007  2008  2009

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Nebraska’s Agricultural Economy

Land Price Per Acre

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Agriculture’s Importance to Nebraska’s Economic Success

- Nebraska (and the Upper Midwest) have done well during the recent Global Recession

- Nebraska unemployment rate 4.7%
  - U.S. unemployment rate 9.7%

- Agriculture has helped the economy in terms of both demand for workers (strong industries), and in the supply of workers (i.e., the quality of the workforce)
Agriculture’s Importance to Nebraska’s Economic Success

- In terms of demand for labor.....
- Four major industries in Nebraska
  - Agriculture
  - Manufacturing related to Agriculture
  - Transportation (major rail and trucking firms)
  - Insurance Carriers
- Rising farm land values have helped maintain household wealth in Nebraska (compared to California, for example)
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Insurance Carriers

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Non-Farm Employment

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## Agriculture’s Importance to Nebraska’s Economic Success

<table>
<thead>
<tr>
<th>Measure</th>
<th>Growth 2009</th>
<th>Growth 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Income</td>
<td>-0.5%</td>
<td>+4.1%</td>
</tr>
<tr>
<td>Taxable Sales</td>
<td>-3.2%</td>
<td>+3.5%</td>
</tr>
<tr>
<td>Population</td>
<td>+0.8%</td>
<td>+0.8%</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>4.8%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

2009 2010

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Agriculture’s Importance to Nebraska’s Economic Success

Unemployment Rate

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In terms of supply of labor.....

Nebraska farm producers are small businesspeople
- Entrepreneurial skill
- Strong work ethic
- Achievement in secondary and higher education

They have lead to a workforce highly “attached” to the labor market – consistently low unemployment

Unemployment rates have risen nationwide
- In the United States, from 5.5% to 9.7%
- In Nebraska, from 3.0% to 4.7%
Agricultural Subsidies are not that important

Subsidies $0.5 billion of $4.0 billion in income in 2008

Why such a small share?
Policy and the Surge in Nebraska Agriculture

- In U.S., livestock producers get few subsidies
  - Livestock is half of Nebraska agricultural sales

- Crop subsidies are now a small share of crop producer income
  - Most crop subsidies in the United States are based on price floors (payments to guarantee a minimum price), rather than guaranteed subsidies
  - But, prices have been much higher over the last few years
Biofuel (ethanol) policy has been important

Federal Policy
- Mandates for biofuel usage
- High trade barriers on imported ethanol (Brasil)
- Ethanol subsidies (per gallon)

State Policy
- Mandates for biofuel availability
- Additional state ethanol subsidy
- Subsidy for new capital investment
But, how critical was ethanol versus other explanations, such as rising world prices (demand from BRIC countries)

Estimates are that ethanol accounted for half of the increase in corn prices ($0.41 of $0.80/bushel)

World demand also was important

* Fortenbery and Park (2008)
Policy and the Surge In Nebraska Agriculture

- WATER – is a major issue
- In the American West – Water is like Gold
- Without enough rainwater, many Nebraska farmers rely on irrigation – groundwater irrigation
- Farmers are losing grip on water resource:
  - Conflict with surface water users (Cattle)
  - Conflict with urban water users
  - Conflict with environmental concerns
Policy and the Surge In Nebraska Agriculture

- In the American West, states (like Nebraska) own the water
- Individual landowners own the right to use water for irrigation
- States reduce water use for irrigation
  - Purchase water rights (with compensation)
  - Reduce amount of irrigation water for each acre (no compensation)
- State’s use local “natural resource districts” to decide how to reduce water usage – this builds local acceptance of results
A key question is: Who Pays?

Nebraska wants local natural resource districts to pay, by taxing farmers and all property owners.

But, it is important to remember it is the urban areas and environmental interests that benefit from the policy.

- My own research shows that reductions in irrigation could lead to a 6% decline in the economy is some farm districts.

Legal courts have ruled against local taxes.
In the latter half of this decade, an exaggerated cost of living made many areas on the West and East Coasts less competitive.

- Climate, access to oceans have amenity value, but property prices had risen far in excess of those amenity values on the East and West Coasts

This problem has now been addressed

- Property prices have declined, more in line with the real value of amenities

As a result, Nebraska has lost a competitive advantage that it held in the 2005-2008 period
## Implications of Global Recession for Rural Regions

### Advantages – An Increase in Resource Flows

<table>
<thead>
<tr>
<th>Year</th>
<th>Growth Rate</th>
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<tbody>
<tr>
<td>2005</td>
<td>0.6%</td>
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<tr>
<td>2006</td>
<td>0.5%</td>
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<tr>
<td>2007</td>
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<tr>
<td>2008</td>
<td>0.8%</td>
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