CROP INSURANCE UPDATE FOR THE WISCONSIN ORGANIC ADVISORY COUNCIL

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Goal Today

• Present overview of the federal crop insurance program
  • Fiscal and political background
• Discuss specifics of the USDA OIG report and RMA response
2009 Insured Acres as Share of Cropland Acres
Trends in WI Crop Insurance Participation

- Blue line: Corn
- Red line: Soybeans
- Green line: Wheat

% Acres Insured

Federal Crop Insurance Program

- Administered by USDA-Risk Management Agency (RMA) and Federal Crop Insurance Corporation (FCIC)
- USDA develops policies, rules, and premium rates
  - Development & administration costs paid by the public
- USDA subsidizes the premiums
  - Farmers pay ~35% to 45% of fair premiums on average
- USDA pays subsidy to companies for Administration and Operating (A&O) ~18%-20% of total premiums
- FCIC reinsures the insurance companies, plus retains some of the policies
  - Means FCIC pays some of the indemnities
## Crop Insurance Data for 2012
(all units in Millions)

<table>
<thead>
<tr>
<th>Crop</th>
<th>Region</th>
<th>Acres</th>
<th>Liability</th>
<th>Farmer Premiums</th>
<th>Premium Subsidies</th>
<th>Subsidy</th>
<th>Indemnities*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>WI</td>
<td>3.04</td>
<td>1,894</td>
<td>63.5</td>
<td>121</td>
<td>66%</td>
<td>312</td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>81.1</td>
<td>53,421</td>
<td>1,632</td>
<td>2,674</td>
<td>62%</td>
<td>9,270</td>
</tr>
<tr>
<td>Soy</td>
<td>WI</td>
<td>1.27</td>
<td>499</td>
<td>18.9</td>
<td>36</td>
<td>66%</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>65.0</td>
<td>25,569</td>
<td>874</td>
<td>1,467</td>
<td>63%</td>
<td>1,853</td>
</tr>
<tr>
<td>Other</td>
<td>WI</td>
<td>0.88</td>
<td>439</td>
<td>10.8</td>
<td>17.9</td>
<td>62%</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>135.7</td>
<td>37,606</td>
<td>1,607</td>
<td>2,796</td>
<td>64%</td>
<td>3,106</td>
</tr>
<tr>
<td>Total</td>
<td>WI</td>
<td>5.19</td>
<td>2,833</td>
<td>93.2</td>
<td>175</td>
<td>65%</td>
<td>356</td>
</tr>
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<td></td>
<td>USA</td>
<td>282</td>
<td>116,596</td>
<td>4,113</td>
<td>6,937</td>
<td>63%</td>
<td>14,229</td>
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*As of 2/11/2013

As of 3/11/2013: Corn = 10,463, Total = 15,750
Crop Insurance Data for 2012

- Corn and Soybeans dominate crop insurance
- 50% of the acres, 60% of the premiums & subsidies, almost 70% of the liability and almost 80% of the indemnities so far

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<th>Percentage of Total in Corn and Soybeans</th>
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*As of 2/11/2013
2009 Total Payments (DCP, ACRE, LDP, SURE, MILC, CRP, Premium Subsidies)
Share of 2009 Total Payments from Crop Insurance Premium Subsidies
Crop Insurance Subsidies in the News

- Jan 15th New York Times Article “Record Taxpayer Cost is Seen for Crop Insurance”
- $7 billion in premium subsidies
- $1.3 billion in A&O subsidies to companies
- $11.4 billion in indemnities, may reach $20 billion
- Maybe $7 billion underwriting losses/reinsurance for Govt.

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Experience with Crop Insurance

- Loss Ratio measures insurance performance
- **Loss Ratio** = Indemnities/Premiums
  - Loss Ratio of 1.5 means, on average, $1.50 in indemnities paid for every $1.00 of premiums
- Crop insurance: Subsidized premiums, farmers and government each pay part
  - **Program** Loss Ratio = Indemnities/(Total Premiums)
    = Indemnities/(Govt + Farmer Premiums)
  - **Farmer** Loss Ratio = Indemnities/(Farmer Premiums)

- 2008 Farm Bill Mandates a Program Loss Ratio of 1.0
- Farmers pay about 1/3 of premiums on average
## 2012 Loss Ratios = Indemnities/Premiums (as of 2/11/2013)

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<th>Region</th>
<th>Program Loss Ratio</th>
<th>Farmer Loss Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>WI</td>
<td>1.68</td>
<td>4.90</td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>2.15</td>
<td>5.67</td>
</tr>
<tr>
<td>Soy</td>
<td>WI</td>
<td>0.53</td>
<td>1.76</td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>0.79</td>
<td>2.12</td>
</tr>
<tr>
<td>Total</td>
<td>WI</td>
<td>1.21</td>
<td>3.82</td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>1.29</td>
<td>3.45</td>
</tr>
</tbody>
</table>

- Program loss ratio not high for drought year, but not done
- Farmer loss ratio much larger than program loss ratio
- Let’s look at geographic distribution over time
Average County Program Loss Ratios for Corn 1995-2007 (CRC, RA, APH)
Average County Program Loss Ratios for Soybeans 1995-2007 (CRC, RA, APH)
Average Indemnities Net of Farmer Premiums ($/acre) 2000-2009
Main Point: Loss Ratios and Reform

• Corn and soybeans “carry” the crop insurance program
  • Program loss ratios too low for corn and soybeans
  • Crop insurance a “tax” on Midwestern corn & soybean acres that transferred to “marginal” production areas
• Recent premium rate adjustments to remedy the problem
  • Trend Adjusted APH (new in 2012)
  • New premium rates phased in 2012 and 2013 so that about 6% lower for Midwest corn and soybeans
Crop Insurance and the Farm Bill

- Crop insurance has become the largest avenue of federal commodity support
  - Look back at the map of % of total subsidies that are crop insurance premium subsidies
  - Federal spending on crop insurance more than $8 billion, but about $7 billion on all other support programs
- Farm Bill proposals from summer/fall 2012 made crop insurance even more important
  - No disaster program in 2012, yet no complaints
## Proposed Cuts ($ Billion per Year)

<table>
<thead>
<tr>
<th></th>
<th>Senate</th>
<th>House Ag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>-$0.4</td>
<td>-$1.6</td>
</tr>
<tr>
<td>Crop Insurance</td>
<td>+$0.50</td>
<td>+0.95</td>
</tr>
<tr>
<td>Commodity Programs</td>
<td>-$1.94</td>
<td>-$2.36</td>
</tr>
<tr>
<td>Crop Insurance + Commodity</td>
<td>-$1.44</td>
<td>-$1.41</td>
</tr>
<tr>
<td>Conservation</td>
<td>-$0.64</td>
<td>-$0.61</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>-$2.31</td>
<td>-$3.51</td>
</tr>
</tbody>
</table>

- Senate and House Ag essentially the same
- Debate was about how much to cut nutrition programs and how to support commodity ag
- Both emphasize crop insurance even more

-9%
Main Point: Crop Insurance a Big Deal

- Attracting lots of attention for policy and cost savings
- Main avenue for federal support of commodity and specialty crops
- Becoming more of a policy tool
  - Conservation compliance, wetland compliance, sod buster provisions, … to get environmental goods
- Focus of policy critics
  - Recent NY Times article: $20 billion on crop insurance in 2012
  - Fiscal hawks as way to find savings to balance budget
  - PNAS article on loss of Great Plains grasslands: crop insurance implicated with subsidies, ethanol, prices, etc.
OIG Report

• Why was the audit conducted?
  • Assess RMA control of AIPs (underwriting, policy service, loss adjustment), actuarial performance, and farmer compliance with good organic farming practices

• Two major findings
  • 1) T-Yields too high for organic crops, should be reduced
    • Growers “over insured,” receiving excessive guarantees
  • 2) Poor loss adjustment and assessment of grower compliance with good organic farming practices by AIPs
How Crop Insurance Works

- Construct a yield history for the crop on the grower's farm and then calculate an average yield.
- Grower chooses **Coverage Level**: percentage of this average as the guarantee: 50% up to 85% in 5% steps.
- Suppose 160 bu/ac avg, 75% coverage level, 100 ac unit.
- **Yield Guarantee** = 160 x 75% x 100 ac = 12,000 bu.
- If actual yield from the whole insured unit is less than this yield guarantee, then grower paid an indemnity.
- Suppose 10,000 bu, loss = 12,000 – 10,000 = 2,000 bu.
- **Indemnity** = **Price Election** x 2,000 bu.
- **The Issue: Rules for Yield Guarantees**
Average Yield

- Farmer with short yield history (≤ 4 years) and/or low yields due to losses use Transition Yields (T-Yields)
- RMA establishes T-Yields as average yield for that crop in that county based on their data
- In low yield years, T-Yields used as used as a “yield plug”
- “yield floor” used so that average yield can be no lower than some % of T-yield
  - % varies depending on length of yield history
- Main point: even if farmer has a low or no yield history, can get an average yield to calculate a Yield Guarantee
Organic T-Yield Problem

- RMA uses conventionally grown crop T-Yields which are higher than typical organic yields
- Organic growers then choose a percentage of this yield for their yield guarantee
- Yield guarantees too high and may exceed actual average yield: effective coverage exceeds nominal coverage
  - 1) Probability and magnitude of expected indemnities exceed those used to develop premiums
  - 2) Over insured: moral hazard incentives
- Both imply high loss ratios with indemnities exceeding premiums: actuarially unsound
RMA Data

- Attachment 2: Ratio of average organic yields to average conventional yields for insured growers in same counties over several years
  - Actual yields from actual farms (not research plots), includes all years, not just good years or good fields
  - Almost all less than 1.0: Corn 0.75, soybeans 0.67
- Attachment 1: Program loss ratios in the same counties for the same crops much higher for insured organic crops
  - Organic: 1.11 versus 0.62 for Conventional
RMA Response

- Reduce T-yields for organic growers
  - See bullets page 3 of “Organic Crop Insurance Audit and Next Steps Questions & Answers”
- Drop ad hoc 5% premium surcharge for organic growers (no need for the “fudge factor” as now getting yield data)
- Impact for low yield growers: lower guarantees and lower premiums [net of effect of lower yield on premium rate?]
- Impact for high yield growers: similar guarantees and lower premiums
Thoughts

- Increased interest in crop insurance and organic ag has brought increased scrutiny of organic crop insurance
  - Organic ag may be “small potatoes” in crop insurance, but attracts attention, both positive and negative
- Insurance data show lower yield potential for most organic crops that results in excessive yield guarantees and thus actuarial problems
  - Hard to argue with data
- Is a loss ratio of 1.11 excessive relative to the marginal corn and soybean counties?
Thanks for Your Attention!

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