Financial /credit crisis impact on the agriculture and food industries

Paul Ellinger
University of Illinois
PELLINGE@ILLINOIS.EDU

Farm Real Estate Lending

Source: USDA ERS
Nonreal Estate Farm Debt

- Commercial banks
- Farm Credit System (31%)
- Farm Service Agency (3%)
- Individuals and others (13%)

103.7 $Billion

Source: USDA ERS

Economic Conditions – July 2008 or 1980

- Surging commodity prices
- Increasing oil prices
- Low and declining value of dollar
- High ag exports
- Inflationary pressures
- Negative real interest rates
- Increasing capital gains
Illinois Farmland Prices

Debt Service to Farm Income

If income drops 33%, no change in debt.
Farm Debt to Asset Ratio

- Relative Stability
- Good Times
- Bad Times
- Relative Stability
- Good Times
- Good Times

Economic Research Service

Farm Income in Illinois

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$209,012</td>
<td>$103,303</td>
<td>$62,940</td>
<td>$97,514</td>
<td>$70,640</td>
<td>$108,682</td>
</tr>
<tr>
<td>Grain Farms....</td>
<td></td>
<td>$220,797</td>
<td>$109,569</td>
<td>$60,273</td>
<td>$94,046</td>
<td>$72,637</td>
<td>$111,464</td>
</tr>
<tr>
<td>Hog Farms.....</td>
<td></td>
<td>96,892</td>
<td>108,461</td>
<td>122,184</td>
<td>209,968</td>
<td>73,182</td>
<td>$122,137</td>
</tr>
<tr>
<td>Dairy Farms....</td>
<td></td>
<td>166,276</td>
<td>57,073</td>
<td>103,370</td>
<td>108,395</td>
<td>60,600</td>
<td>$99,143</td>
</tr>
<tr>
<td>Beef Farms....</td>
<td></td>
<td>97,537</td>
<td>12,243</td>
<td>50,733</td>
<td>66,784</td>
<td>72,456</td>
<td>$59,951</td>
</tr>
</tbody>
</table>

1998-2002 Operators’ Total Net Farm Income = $32,038
Fall Credit Demands in Midwest

- Delayed harvest and commodity prices declines
- Increased and higher prepaid expenses
- Cash needs increased, new 2009 lines
- Elevator operating lines established, Oct-Nov

Individual Lenders in Production Agriculture
### Commercial Banks

Table 1. Commercial Banks Lending to Agriculture by Asset Size.

<table>
<thead>
<tr>
<th>Asset Size ($ Million)</th>
<th>Percent of Ag Loans at Commercial Banks</th>
<th>Number of Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $100</td>
<td>16.09%</td>
<td>2,507</td>
</tr>
<tr>
<td>100-500</td>
<td>33.96%</td>
<td>2,677</td>
</tr>
<tr>
<td>500-1,000</td>
<td>10.44%</td>
<td>474</td>
</tr>
<tr>
<td>1,000-10,000</td>
<td>17.85%</td>
<td>347</td>
</tr>
<tr>
<td>Greater than 10,000</td>
<td>21.66%</td>
<td>66</td>
</tr>
</tbody>
</table>

Source: Call and Income Reports, 6/30/2008

18% are publicly traded

### Largest Banks

Table 2. Largest 15 Banks Lending to Agriculture, June 2008.

<table>
<thead>
<tr>
<th>Loans Secured by Farm Real Estate ($000)</th>
<th>Nonreal Estate Agricultural Loans ($000)</th>
<th>Total Agricultural Loans ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wells Fargo Bank</td>
<td>$ 2,298,000</td>
<td>$ 5,061,000</td>
</tr>
<tr>
<td>Bank Of America</td>
<td>1,395,453</td>
<td>1,325,665</td>
</tr>
<tr>
<td>Bank Of The West</td>
<td>775,373</td>
<td>1,611,853</td>
</tr>
<tr>
<td>U S Bank</td>
<td>788,882</td>
<td>1,084,962</td>
</tr>
<tr>
<td>Rabobank</td>
<td>1,348,721</td>
<td>491,479</td>
</tr>
<tr>
<td>Regions Bank</td>
<td>773,483</td>
<td>353,394</td>
</tr>
<tr>
<td>M&amp;I Marshall &amp; Ilsley Bank</td>
<td>725,463</td>
<td>388,266</td>
</tr>
<tr>
<td>Wachovia Bank</td>
<td>591,000</td>
<td>469,000</td>
</tr>
<tr>
<td>First National Bank Of Omaha</td>
<td>41,333</td>
<td>877,025</td>
</tr>
<tr>
<td>New Frontier Bank</td>
<td>346,710</td>
<td>402,182</td>
</tr>
<tr>
<td>Keybank</td>
<td>203,962</td>
<td>526,880</td>
</tr>
<tr>
<td>JPMorgan Chase Bank</td>
<td>191,000</td>
<td>524,000</td>
</tr>
<tr>
<td>National City Bank</td>
<td>245,160</td>
<td>265,917</td>
</tr>
<tr>
<td>Pinnacle Bank</td>
<td>180,608</td>
<td>309,293</td>
</tr>
<tr>
<td>Fulton Bank</td>
<td>380,599</td>
<td>106,031</td>
</tr>
</tbody>
</table>

$ 10,285,755 $ 13,796,947 $ 24,082,702

% of all commercial banks 17% 24% 20%

Source: Call and Income Reports, June 2008.
**Bank Liquidity**

Table 3. Liquidity and Solvency Measures for Commercial Banks

<table>
<thead>
<tr>
<th>Asset Size ($ Million)</th>
<th>Loan to Deposits (%)</th>
<th>Equity to Assets (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $100</td>
<td>75%</td>
<td>12.1%</td>
</tr>
<tr>
<td>100-500</td>
<td>86%</td>
<td>9.9%</td>
</tr>
<tr>
<td>500-1,000</td>
<td>94%</td>
<td>9.0%</td>
</tr>
<tr>
<td>1,000-10,000</td>
<td>105%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Greater than 10,000</td>
<td>149%</td>
<td>7.6%</td>
</tr>
</tbody>
</table>

Source: Call and Income Reports, 6/30/2008

---

**Impact on Commercial Banks Lending to Agr.**

- **Dog bone**
  - Farm and bank size
- **Regional differences**
- **Fed actions**
  - Insurance & Capital infusions
- **Potential for enhanced documentation/underwriting/regulation**
- **Potential exposures to interest rate risk**
Farm Credit System

- Government Sponsored Entity (GSE)
- Strong capital position
- Acquires funds via capital markets
  - Unintended consequences of gov’t actions
  - Funding costs higher
  - Longer term harder to place
  - Recent actions Fed will likely ease
- Lenders to elevators/POS input suppliers
- Growth in some assn. slowed by Farmer Mac limitations in long-term standby market

Farmer Mac

- Another agricultural GSE
- Guarantee portfolio quality remains strong (11/10)
- Focus on increasing capital
- $65 Million infusion from Farm Credit System
  - Investments in Fannie and Lehman, impairment losses $97 million
- FCS standbys now more limited
- Similar issues in funding to FCS
Insurance Companies

- Larger RE loans
  - Dependence on larger farms access to working capital
- Some evidence of scaling back new lending – capital and earnings related

Captive Finance Suppliers

- Asset back security market
- Commercial paper
- Input suppliers
Summary: Agricultural Lenders

- Financial health in general, strong
- 2008 farmer earnings/payback in Midwest relatively secure
  - Grain farmers v protein markets
- Increased risk spreads, partially offset by cost of funds declining
- Longer term fixed-rate financing may be limited
- Largest impact on credit availability will likely be the affects the economic crisis has on profit margins
  - U Illinois studies suggest cost of production before labor and land costs > $3.00 per bushel
- Operating lenders may feel impact if cash rents don’t adjust

Summary: Other Issues in the Agr. Landscape

- Some agribusiness financing concerns:
  - Ethanol
  - Elevators
  - Input suppliers
  - Trade letters of credit
- Maybe a time to take the competitive gloves off and get enhanced cooperation among the agr. lender groups
- Financial, commodity market, and input price risk being pushed to producer