Evaluating Rental Agreements and Land Values with Lower Prices

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Average Cash Rent in IL

Average Cash Rent in Illinois, 1976 to 2015

Source: USDA-NASS

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Professionally Managed Cash Rents in IL

Table 1. Actual 2014 and 2015 Cash Rents and 2016 Rents on Professionally Managed Farmland in Illinois

<table>
<thead>
<tr>
<th>Land Productivity (Expected corn yield)</th>
<th>2014 Average&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Professionally Managed Farmland&lt;sup&gt;2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014 Rent</td>
<td>2015 Rent</td>
</tr>
<tr>
<td>Excellent (190 Plus bushels)</td>
<td>293 $/acre</td>
<td>374 $/acre</td>
</tr>
<tr>
<td>Good (170 - 190 bushels)</td>
<td>243 $/acre</td>
<td>322 $/acre</td>
</tr>
<tr>
<td>Average (150 -170 bushels)</td>
<td>159 $/acre</td>
<td>285 $/acre</td>
</tr>
<tr>
<td>Fair (Less than 150 bushels)</td>
<td>214 $/acre</td>
<td>200 $/acre</td>
</tr>
</tbody>
</table>

<sup>1</sup> Complied from National Agricultural Statistical Service data.

<sup>2</sup> From surveys conducted by the Illinois Society of Professional Farm Managers and Rural Appraisers.
Why Cash Rents *Could (Should?) Adjust*

1. Farm income will be down considerably in 2015, and 2016 likely will be a repeat of 2015 *if significant cost cuts do not occur.*

2. Non-land costs plus cash rents exceed gross revenue, *need to cut costs.*
Controlling Land Costs

• Assess your financial situation
  – Working capital, Current ratio

• Information and communication
  – Crop budgets

• Alternative lease arrangements
  – Hybrid or flex designs

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Hybrid or Flex Lease Designs

• Typical components
  - Base rent level
  - Bonus tied to yields, prices, and/or revenues above a certain level
  - Reduces losses for farmer when returns are low, provides landlord with more rent when returns are higher

• Becoming more popular, particularly on professionally managed farms

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Hybrid or Flex Lease Designs

- Example from September 9, 2015 daily post:
  - $200 base rent
  - Bonus: 50% of revenue above total cost

Non-land costs: $500/acre Total cost: $750/acre
200 bu/acre yield

<table>
<thead>
<tr>
<th>Corn Price = $3.50</th>
<th>Corn Price = $4.25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue = $700</td>
<td>Revenue = $850/acre</td>
</tr>
<tr>
<td>Rent</td>
<td>Rent</td>
</tr>
<tr>
<td>$200/acre</td>
<td>$200 + 0.5*$100 = $250/acre</td>
</tr>
</tbody>
</table>

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Why Cash Rents *Might Not Adjust* (or why it won’t feel like they are...)

3. Many farmers are financially strong and could postpone cost cutting decisions...
   - Rents are not renegotiated every year
   - Build up of working capital, willingness and ability to accept negative returns to keep control of the land
   - Actual rents vary from reported averages

4. Environment is different today...
Cash Rent Averages

• Distribution around average cash rents
  – Average in IL was $230 in 2014, $228 in 2015
  – County averages range from $308 to $80
  – Averages paid on farm operations vary around county averages
  – Variation across parcels on the same farm operation

• High end rents will likely come down
• Low end rents may continue to rise
→ Averages may not change

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Average Farmland Values in IL

Average Farmland Values in IL, 1976 to 2015

Source: USDA-NASS
Region 5: Land Values Summary by Class

East-Central IL
Region 2: Land Values Summary by Class

- Excellent
- Good
- Average
- Fair

Price/acre


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Southern IL

Region 10: Land Values Summary by Class

- Good
- Average
- Fair

Price/acre


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Farmland Values

• **Two main factors**
  - Income stream associated with farmland
    • Cash rent income
    • Adjustments for ownership costs
  - Discount rates
    • Interest rates

• **Long-term levels are what (should) matter**
  - Perceived permanence/appropriateness of current levels

• **Other factors**
Interest Rates: 10-year CMT

Figure 2. Rates on Ten-Year Constant Maturity Treasury Bonds

Source: St. Louis Fed, Fred database

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## Capitalized Value of an Asset

- **Discount rate, \( r \)**
- **Annual income generated by asset, \( I \)**
- **Capitalized Value or Price, \( P \)**

\[
P = \frac{I}{r}
\]

- **Example: $230 cash rent farm (avg in IL)**

<table>
<thead>
<tr>
<th>Discount rate (( r ))</th>
<th>2%</th>
<th>3%</th>
<th>4%</th>
<th>5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Value</td>
<td>$11,500</td>
<td>$7,667</td>
<td>$5,750</td>
<td>$4,600</td>
</tr>
</tbody>
</table>

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Average Value vs. Implied Capitalized Value in IL

Figure 3. Farmland Prices and Capitalized Values, Illinois, 1970 - 2015

Source: National Agricultural Statistical Service, U.S.D.A.

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Why Land Values *May Not* Remain Stable

- Lower returns, reduces income generating component of land values

- Increase in interest rates could increase discount rate component of land values
  - At low interest rates, farmland values can be very sensitive to changes
Monetary Policy Expectations
(from September 2015)
Monetary Policy Expectations
(from September 2015)
Why Land Values *May* Remain Stable

- Capitalized value well above average market value of farmland
  - Farmland market has not viewed current income (rents) or interest rate levels as permanent

4. Environment is different today...
- Strong ag sector balance sheet
- Crop insurance, other support
- Interest rates
Historical Interest Rates

10yr CMT, Federal Funds, and Farm Real Estate Rates

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Summary

- **Cash Rents have been rising with other production costs**
  - Some rents may adjust in response to lower returns
  - Some rents may not adjust

- **Farmland Values have also risen**
  - Lower cash rents and higher interest rates may cause land values to decline
  - Land values may remain relatively stable
  - Depends on market’s long-term views