Indiana Farmland Values and Cash Rents Continue Downward Adjustments

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Purdue Farmland Value Survey Process

• Survey conducted annually since 1970
  – Rural Appraisers, Ag Lenders, Farm Managers, Farmers

• Ask for land values in
  – December ‘16, June ‘17, and December ’17
  – Responses for top, average, and poor quality land

• Ask for current cash rent

• Ask for long-term corn yield to obtain productivity information
# Indiana Farmland Values
## 2017 Survey Results

<table>
<thead>
<tr>
<th>Land Quality</th>
<th>Yield (Bu./A)</th>
<th>2016 Value ($/A)</th>
<th>2017 Value ($/A)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
<td>200</td>
<td>$8,508</td>
<td>$8,529</td>
<td>0.2%</td>
</tr>
<tr>
<td>Average</td>
<td>169</td>
<td>$7,041</td>
<td>$6,928</td>
<td>-1.6%</td>
</tr>
<tr>
<td>Poor</td>
<td>139</td>
<td>$5,353</td>
<td>$5,280</td>
<td>-1.4%</td>
</tr>
</tbody>
</table>
## 2017 Land Value Change

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
<td>2.9%</td>
<td>-2.6%</td>
</tr>
<tr>
<td>Average</td>
<td>1.4%</td>
<td>-3.0%</td>
</tr>
<tr>
<td>Poor</td>
<td>1.9%</td>
<td>-3.2%</td>
</tr>
</tbody>
</table>
Indiana Farmland Values
1970 – 2017, Average Quality Land

Value per acre ($)

Year

Market

Inflation Adj. (2017)

Nominal Value

Inflation Adjusted Value (2017 $’s)
Regional Farmland Value Changes

Top -3.0%
Avg. -2.3%
Poor -5.4%

Top -2.7%
Avg. -3.1%
Poor -5.1%

Top -5.8%
Avg. -5.4%
Poor -2.1%

Top -0.4%
Avg. -1.2%
Poor 2.8%

Top 6.2%
Avg. 8.3%
Poor 5.8%

Top -1.4%
Avg. -10.6%
Poor -14.5%
Survey Respondents View of Land Value Drivers

![Chart showing the average value of various factors influencing land value from 2015 to 2017.](chart.png)
Land on Market Today vs. Peak Land Supply Year (2011) and 2016
Land Value Summary

• June ‘16 to June ‘17
  – Decline Slowed, Market remains weak
  – Top Quality +0.2%, Average Quality -1.6%, Poor Quality -1.4%
  – Down 13% - 14% from peak of 2014

• Last half of 2017, respondents expect decline 2.2% to 3.0%

• Looking Ahead...year to year estimate
  – Anticipate annual reduction 3% - 6% June ‘17 to June ‘18
Indiana Cash Rent 2017 Survey Results

<table>
<thead>
<tr>
<th>Land Quality</th>
<th>Yield (Bu./A)</th>
<th>Value ($/A)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
<td>200</td>
<td>$257</td>
<td>$253</td>
</tr>
<tr>
<td>Average</td>
<td>169</td>
<td>$204</td>
<td>$205</td>
</tr>
<tr>
<td>Poor</td>
<td>139</td>
<td>$157</td>
<td>$163</td>
</tr>
</tbody>
</table>
Indiana Farmland Cash Rent
1975 – 2017, Average Quality Land

Nominal cash rents down 12% since peak in 2014
Regional Farmland Cash Rent Changes

Top -4.2%  Avg. 1.5%  Poor 7.4%
Top -3.4%  Avg. -2.6%  Poor 0.0%
Top -5.7%  Avg. -2.5%  Poor -0.0%
Top 0.7%  Avg. -0.5%  Poor 1.1%
Top -5.9%  Avg. -7.6%  Poor -6.0%
Top -10.6%  Avg. -3.4%  Poor -4.5%
Top -6.0%  Avg. -7.6%  Poor -6.0%
Short–Term Expectations

• Cash Rent in 2018

<table>
<thead>
<tr>
<th>Change</th>
<th>% Respondents</th>
<th>Average % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher</td>
<td>7%</td>
<td>8.2%</td>
</tr>
<tr>
<td>No Change</td>
<td>33%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Lower</td>
<td>59%</td>
<td>-9.3%</td>
</tr>
</tbody>
</table>

• Average of All Respondents = -4.9%
Cash Rent Summary

• Cash rents declined 9.8% to 10.9% in 2016
• Respondents expect 2018 rents to decline 4.9%
• Down from peak: 9% to 13%
• Anticipate decline of 3% - 5%
Downward Pressures on Cash Rents and Land Values

- **Cash Rents**
  - Relatively low earnings for corn and soybeans

- **Land Values**
  - Decline in cash rent
  - Increase in long-term interest rates
  - Increase in risk premium for the farming sector
  - Relatively high P/rent ratio
Land Value to Income Multiplier
1975-2017, Average Quality Land
## 5-Year Forecast By Survey Respondents

Where do you expect farmland prices to be in 5 years?

<table>
<thead>
<tr>
<th>Direction</th>
<th>% Respondents</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase</td>
<td>74% (45%)</td>
<td>9.5%</td>
</tr>
<tr>
<td>No change</td>
<td>29%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Decrease</td>
<td>26%</td>
<td>-13.6%</td>
</tr>
<tr>
<td>Overall</td>
<td>100%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>
Cash Rents and Land Values in the Corn Belt

• Iowa (2013 to 2017)
  – Cash rents declined 18.9%
  – Land values declined 17.6%

• Illinois (2013 to 2017)
  – Cash rents declined 21.1%
  – Land values declined 24.2%

• Indiana (2014 to 2017)
  – Cash rents declined 11.6%
  – Land values declined 13.1%
Land Value Summary

• June ’17 vs. June ‘16
  – Top Quality +0.2%, Average Quality -1.6%, Poor Quality -1.4%
• Declines of 2.2% to 3.0% are expected in last half of 2017
• Over the next 5-years, respondents expect increase of only 0.7% in Indiana values, but there are significant differences of opinion
Cash Rent Summary

• Cash rents in 2017 flat for top & average quality land, small increase for poor quality land

• Respondents expect 2018 rents to decline 4.9%