Farmland Rents and Values

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Farmland Leases: Tales, Types, and Trends
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Agenda

• Rents and values – the Indiana perspective
• Expectations
• Risks and the future
Rents – Where are We At?

• Agriculture’s history includes periods of remarkable boom and bust
• Agriculture is capital intensive
  – Large increases in profitability make fixed assets priced in less profitable times look cheap
  – MAJOR capital restructuring underway
  – Rents high relative to value from a historical perspective

Key Questions:
  – Will these times last or will we retreat to previous levels?
  – Are rents catching up? Will they catch up?
These multiples require either sustained income growth or continuing low interest rates (and likely both).
Will rates move up as slowly as they have moved down?
Rate impact would likely felt on valuations today
Cash flow impact will be secondary impact unlike 70’s
Warning sign 1 – something changes to take us out of accommodation
Budgeted Profit/Loss and Cash Rent for High Quality Indiana Farmland, 1991-2013

- Combined profit and rent shot up in 2007
- Highly variable and < $500/acre
- How high will rents go?
- What is the risk with higher rents?

Source: Derived from Purdue Crop Budgets, ID-166, Corn-Soybean Rotation

Dollars per Acre

$104 $111 $92 $136 $98 $143 $177 $169 $112 $119 $122 $114 $123 $140 $94 $96 $444 $487 $332 $286 $185 $422 $430

$100

$- $(100)


Profit and Loss Cash Rent Rent + Profit

3X+
On a per bushel level, rents have not increased as much as corn prices.
Land Values Under Alternative Capitalization Rates (Multiples) and Income Levels

- 3% (33)
- 4% (25)
- 5% (20)
- 6% (17)
- 8% (13)

2012 Value HQ IN Farmland $7,704

Current Cash Rental Rate HQ IN Farmland, $265 per Acre

Value per Acre

Income per Acre

Purdue University | Center for Commercial Agriculture
It is somewhat unlikely that incomes would rise with increasing real rates.
Land rent has averaged 35% of revenue over this period, high = 45%, low = 22%
So What About Corn Prices?

- Darrel Good and Scott Irwin forecast the new plateau prices as follows:

<table>
<thead>
<tr>
<th></th>
<th>Corn</th>
<th>Soybeans</th>
<th>Wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Dec 2006</td>
<td></td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>Monthly Price</td>
<td></td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>Average</td>
<td>4.60</td>
<td>11.50</td>
<td>5.80</td>
</tr>
<tr>
<td>High</td>
<td>6.70</td>
<td>19.10</td>
<td>10.15</td>
</tr>
<tr>
<td>Low</td>
<td>3.00</td>
<td>8.20</td>
<td>3.30</td>
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</tbody>
</table>

Land Values Under Alternative Capitalization Rates (Multiples) and Rent per Bushel, HQ IN Farmland

Box captures I&G’s price range if land receives 35% of gross revenue
Current yield = 192bpa, current rent = $265/acre

Still room for averages to move higher -- but sales over $10,000/acre? $12,000 per acre!???
What Do Landowners Think?

• Current values are dependent upon continuation of low interest rates and high farm returns over variable costs

• Conducted and internet survey in Spring 2012
  – What do farmland investors think about future
    • Farmland prices
    • Cash rents
    • Crop prices
Conducted an Internet Based Survey in Spring 2012

Objectives were to determine:

1. Expectations for returns to crop production and farmland ownership over a 1-5 year time frame
2. Current market conditions for farmland and the factors that are the most important in determining the values of farmland
3. How a variety of factors such as experience, earnings expectations, market characteristics, and interest rates influence the perception of farmland value
The Respondents

- Individuals in CCA database with interest in farmland and farming
- 246 complete responses (28%)
- 73% owned farmland
- 74% want to purchase more farmland in the next 5 years
- Median acres
  - owned = 500
  - rented from others = 1,200
  - rented to others = 240
Respondents asked to consider:
80 Acres of Farmland with a production capability of 165 bushels of corn per acre under normal rain-fed conditions
Respondents’ Perception of the Value and Earnings, $’s per acre.

<table>
<thead>
<tr>
<th>Estimate of:</th>
<th>N</th>
<th>Average</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmland value</td>
<td>194</td>
<td>6,179</td>
<td>2,008</td>
<td>6,500</td>
</tr>
<tr>
<td>Expected cash rental rate</td>
<td>197</td>
<td>233</td>
<td>86</td>
<td>225</td>
</tr>
<tr>
<td>Expected profit from operating</td>
<td>161</td>
<td>201</td>
<td>135</td>
<td>175</td>
</tr>
<tr>
<td>Expected price at auction today</td>
<td>197</td>
<td>6,979</td>
<td>2,207</td>
<td>7,450</td>
</tr>
</tbody>
</table>
Estimates of Farmland Value and Price at Auction, 196 Respondents, Spring 2012

- Resp. Est. of Value
- Resp. Est. of Auction Value

Perception of the value for 80 with a production capability of 165 bushels of corn per acre under normal rain-fed conditions, $’s per acre

- 65% felt auction prices were higher than their perception of value
- 53% believe farmland prices are in a bubble
- 73% are interested in purchasing more farmland in the next 5 years
Perception of the cash rental rate for 80 acres of farmland with a production capability of 165 bushels of corn per acre under normal rain-fed conditions, $’s per acre
Distribution of Cash Rent Per Bushel, 193 Respondents
Spring 2012

Cumulative Probability

Cash Rent per Bushel

Perception of the cash rental rate for 80 acres of farmland with a production capability of 165 bushels of corn per acre under normal rain-fed conditions, $’s per acre
There is a 1 in 10 chance that the cash rental rate will be less than $201. The cash rental rate will most likely be $267. There is a 1 in 10 chance that the cash rental rate will be greater than $342.
On average, respondents expect similar multiples in the future.
Corn prices expectations all over the map but generally above $5.00/bu.

- There is a 1 in 10 chance that the average corn price will be less than $3.93.
- The average corn price will most likely be $5.41.
- There is a 1 in 10 chance that the average corn price will be greater than $7.19.
Almost no systematic relationship between perception of land value and expected corn prices
Final Thoughts

• Rents are heading higher in response to higher incomes
• Higher rents bring about considerable risk
• Bidding likely to remain strong in the near future
• How will market respond when crop prices moderate?
• How many long-term leases have been signed?
Final Thoughts

• The credit cycle will start to heat up – there will be significant pressure to finance rising land values
  – Many farmers have spectacular equity positions
  – Watch out for modified terms
  – Many new entrants and expansions will take place

• Land market should start to level off – if rates/fundamentals change watch the market closely

• Do you have a handle of off-balance sheet exposure?

• Monitor operating lines carefully – will be the first to show signs of stress
Final Thoughts

• Tremendous volatility in the ag marketplace
• For crop farmers it has been all favorable
  – How good are they at managing risk? (It has been easy so far)
  – How exposed are they to other’s risk management activities? Volatility creates winners and losers
  – How are they managing costs?
  – What about non-land capital investment?
  – When need for operating capital comes it will be substantial and much larger than before the boom
Final Thoughts

• Times in row-crop are very good
  – It is conceivable they could get better
  – It is also conceivable they could be worse
  – It is very difficult to predict what takes us out of this cycle, but credit can magnify the outcome either way

• How favorable is the current risk/return tradeoff for farmland?