Land Value Trends & Tomorrow’s Agriculture

2018 Missouri Farm Bureau Commodity Conference
Goals for Today

- The Land Market
- Rental Terms
- Food for Thought: What’s Next?
Ag Land Comprises Over 50% of the US

*Special uses include rural parks and wilderness areas, rural transportation areas, defense/industrial lands (all nonagricultural uses), and farmsteads/farm roads (agricultural uses).

Percent of Land in Farms Rented or Leased, 2012

The map shows the percentage of land in farms that were rented or leased in 2012. The colors range from light green to dark blue, indicating different percentage ranges of rented or leased land. The map includes a key that explains the color coding:

- Less than 20%
- 20 - 29%
- 30 - 39%
- 40 - 49%
- 50 - 59%
- 60 or more%

The United States as a whole had 38.8% of its land in farms rented or leased. The distribution varies significantly across different states and regions.
Owner-operated and rented farmland by ownership, by region, 2012

- **Mountain**: (22%) Owner-operated, (34%) Rented from operators, (34%) Rented from nonoperators
- **Southern Plains**: (40%) Owner-operated, (31%) Rented from operators, (31%) Rented from nonoperators
- **Northern Plains**: (34%) Owner-operated, (34%) Rented from operators, (34%) Rented from nonoperators
- **Corn Belt**: (31%) Owner-operated, (29%) Rented from operators, (29%) Rented from nonoperators
- **Pacific**: (31%) Owner-operated, (22%) Rented from operators, (22%) Rented from nonoperators
- **Lake**: (22%) Owner-operated, (38%) Rented from operators, (38%) Rented from nonoperators
- **Appalachian**: (24%) Owner-operated, (22%) Rented from operators, (22%) Rented from nonoperators
- **Southeast**: (22%) Owner-operated, (38%) Rented from operators, (38%) Rented from nonoperators
- **Delta**: (24%) Owner-operated, (31%) Rented from operators, (31%) Rented from nonoperators
- **Northeast**: (22%) Owner-operated, (34%) Rented from operators, (34%) Rented from nonoperators

Productivity has been Capitalized Into Land Values

U.S. agricultural output, inputs, and total factor productivity, 1948-2015

Farmland Capitalization Rates and Interest Rates on 10 Year US Treasury Bonds, 1967-2017

Sources: Data were compiled from various Land Values and Cash Rent Summary reports published by the National Agricultural Statistics Service.
Land Values Fairly Steady
Land Values Fairly Steady
All Farmland & Buildings, 1950-2017
Missouri Values, USDA/NASS

Year

$/acre

Value  6% Trend

Univ of MO Extension
Iowa Nominal and inflation-adjusted average value per acre of Iowa farmland

Source: Iowa State University
Map: Value of Nonirrigated Cropland
First Quarter 2018
## Future Plans for Your Farm

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Keep</td>
<td>41%</td>
<td>40.1%</td>
<td>40.9%</td>
<td>34.8%</td>
</tr>
<tr>
<td>Pass to Child</td>
<td>68.5%</td>
<td>59.7%</td>
<td>61.9%</td>
<td>66.8%</td>
</tr>
<tr>
<td>Sell in Five Years</td>
<td>6%</td>
<td>6.5%</td>
<td>3.3%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Sell Later</td>
<td>2.6%</td>
<td>3.7%</td>
<td>2.7%</td>
<td>3%</td>
</tr>
<tr>
<td>Add Farms Adds to More Than 100%</td>
<td>7.1%</td>
<td>6%</td>
<td>2.6%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Children Keep</td>
<td>78.4%</td>
<td>71.5%</td>
<td>78.5%</td>
<td>81.3%</td>
</tr>
</tbody>
</table>
Who Sells Ag Land?

- Only 1% or less trades in the open market each year
- 10% of 911 million acres of agricultural land will change hands in the next five years (2% per year)
- Therefore, an estimated 21 million acres of farm and ranchland will be sold between non-related parties in the next five years or 4.25 million acres per year (USDA Total Survey)
## Who Buys Ag Land?

<table>
<thead>
<tr>
<th>Source</th>
<th>MO</th>
<th>IA</th>
<th>IL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers</td>
<td>68%</td>
<td>77%</td>
<td>70%</td>
</tr>
<tr>
<td>Local Investors</td>
<td>21%</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>Non-Local Investors</td>
<td>8%</td>
<td>--</td>
<td>8%</td>
</tr>
<tr>
<td>Institutions</td>
<td>--</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Other</td>
<td>11%</td>
<td>4%</td>
<td>1%</td>
</tr>
</tbody>
</table>

- Sources: Iowa State University
- Illinois Society of Professional Farm Managers and Appraisers
- University of Missouri Extension
Current Positives

- #1 positive in the land market…
  - Low supply of land for sale
    - Number of sales down 50% in Iowa since 2012
      - Source: Farm Credit Services
  - Some MO counties had one sale last year
  - Downward trend has slowed land sellers
Other Positives

- Interest rates remain historically low
- Low overall debt in agriculture
  - Majority of farmland has no debt
    - 82% in Iowa has no debt (Source: Iowa State University)
- Land ownership is in solid hands
  - Majority plan to put their land in trust or gift to next generation
  - About 3%-7% plan on the land being sold
Low Overall Debt in Ag

Farm sector solvency ratios, 1970-2017F

Note: F = forecast.
Additional Positives

- Adequate demand
  - Investor interest is picking up
  - Use of 1031 tax-deferred exchanges is up
  - Farmers still buying (for now)
Negatives on the Horizon

- Low commodity prices to remain flat?
  - Return on investment would remain low
- Financially encouraged land sales to increase?
- Land price to rent ratio remains high
- Interest rates to increase and by how much?
- Outside influences
Net farm income and net cash farm income, 2000-18F

$ billion, nominal

Note: F = forecast.
Data as of February 7, 2018.
Rates of Return on Assets from Income and Capital Gains, U.S. Farm Sector, 1960-2016
Capital Burn at the Farm Level

Working Capital In U.S. Ag Sector, 2012-2017F

Billion Dollars

2012 2013 2014 2015 2016F 2017F
Today’s ratio of 6.15:1 shows debt is more than six times greater than farm income, suggesting agriculture remains in profit-squeeze mode.
Federal Reserve
Open Market Interest Rate Projection
Figure 2. P/rent Ratios for Iowa, Illinois, and Indiana.
2017 Price to Rent Ratio

- Remain above average
- The new normal?
  - Indiana 33
    - Source: Purdue
  - Illinois 36
    - Source: ISPFMRA
  - Missouri 29
    - Source: Farmers National Company
The Next Six Months

- Watch the supply of land for sale on the market
- Watch commodity prices
- Watch interest rates
- Watch the outside influences
  - Trade policy
  - Economic and tax policy
- Watch the Price to Rent Ration
Sticky Cash Rents

- Steady to down 5% in 2018
- More rent pressure expected in 2019
- Landowners are reluctant to lower rents
  - They were slow to raise the rent
  - The income is now expected
    - A new generation of landowners
  - Less empathy today
  - Increasing land tax burden in some states
What’s Next?

- Efficiency gains for production agriculture
  - Farming the margin
  - The big break through that survives?
  - IOA: Internet of Actions

- Landowners will be better informed
  - The tech generation
  - Desk top management & the Can Plug?

- Who owns the data off the farm?
Half of the US Population Lives in these 146 Counties
THREE WORDS

☐ SUSTAINABILITY
  - Water & Resources

☐ TRACEABILITY
  - Consumer Preferences
  - Generational Changes

☐ FINANCIALIZATION