Dynamics of Farm Profitability: Factors Influencing the Decline in Farm Income

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Farm assets and equity expected to decline, farm debt to increase

Farm sector equity and debt

- **Farm equity**
  - 2011: 2,311
  - 2012: 2,638
  - 2013: 2,778
  - 2014: 2,944
  - 2015F: 2,862
  - 2016F: 2,815

- **Farm debt**
  - 2011: 295
  - 2012: 297
  - 2013: 315
  - 2014: 346
  - 2015F: 364
  - 2016F: 373

Source: USDA, ERS, Farm Income and Wealth Statistics.
Farm assets and equity expected to decline, farm debt to increase

Change in farm sector assets, equity, and debt
percent changes from previous year

Source: USDA, ERS, Farm Income and Wealth Statistics.
Farm real estate assets represent 82% of farm assets; also expected to decline

Farm sector assets by type

<table>
<thead>
<tr>
<th></th>
<th>Billion dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real estate</td>
<td>2,314</td>
</tr>
<tr>
<td>Machinery and vehicles</td>
<td>244</td>
</tr>
<tr>
<td>Animals and products</td>
<td>119</td>
</tr>
<tr>
<td>Crops stored</td>
<td>40</td>
</tr>
<tr>
<td>Purchased inputs</td>
<td>20</td>
</tr>
<tr>
<td>Financial assets</td>
<td>79</td>
</tr>
</tbody>
</table>

Source: USDA, ERS, Farm Income and Wealth Statistics.
Growth in farmland values

Farm real estate values per acre, U.S.

Source: USDA, NASS. Land Values Summary.
Cropland values show major differences by state

Value per acre for cropland, 2015

Source: USDA, NASS. Land Values Summary.
Small increase in cropland values, some regions see declines

Cropland values per acre, percent change 2014-2015

Source: USDA, NASS. Land Values Summary.
Growth in cash rent for farmland

Cash rent per acre, U.S.

Source: USDA, NASS, Cash Rent Survey.
Cash rents show considerable variation by state

Cash rent per acre for cropland, 2015

Source: USDA, NASS, Cash Rent Survey.
Moderate increase in cash rents for many states

Cash rent per acre for cropland, percent change 2014-2015

Source: USDA, NASS, Cash Rent Survey.
## Landowners for land rented out

<table>
<thead>
<tr>
<th></th>
<th>Number of landlords</th>
<th>Acres rented out (millions)</th>
<th>Rent received ($billions)</th>
<th>Expenses ($billions)</th>
<th>Value of land and buildings ($billions)</th>
<th>Debt ($billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator landlords</td>
<td>280,044</td>
<td>70.3</td>
<td>6.9</td>
<td>1.9</td>
<td>200</td>
<td>7.9</td>
</tr>
<tr>
<td></td>
<td>13%</td>
<td>20%</td>
<td>22%</td>
<td>20%</td>
<td>18%</td>
<td>24%</td>
</tr>
<tr>
<td>Non-operator landlords</td>
<td>1,851,796</td>
<td>283.4</td>
<td>24</td>
<td>7.4</td>
<td>932</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>87%</td>
<td>80%</td>
<td>78%</td>
<td>80%</td>
<td>82%</td>
<td>76%</td>
</tr>
<tr>
<td>Total</td>
<td>2,131,840</td>
<td>353.7</td>
<td>31</td>
<td>9.3</td>
<td>1132</td>
<td>33</td>
</tr>
</tbody>
</table>

About 39% of farmland is rented, the rest is owned by farmers

Source: USDA, Census of Agriculture.
Beginning farmers own and rent less land than established farmers

Owned and Rented Acres for U.S. Farmers by Years of Farming Experience, 2002

Beginning farms increase owned land by 1.3% and rented land by 2.3% annually.

Young farmers own least land and rent most

Owned and Rented Acres for U.S. Farmers, 2002

- <35: Rented Acres (200), Owned Acres (150)
- 35-44: Rented Acres (300), Owned Acres (250)
- 45-54: Rented Acres (250), Owned Acres (350)
- 55-64: Rented Acres (200), Owned Acres (400)
- >64: Rented Acres (100), Owned Acres (450)

Young farmers expand owned and rented land by 6-8% annually.

Annual Growth Rates in Owned and Rented Acres for U.S. Farmers, 2002-2012

Liquidity has declined

Source: USDA, ARMS.
Profitability has been declining but still positive

Farm profitability ratios (ROA and ROE)

Source: USDA, ARMS.
Debt-to-asset ratios have been increasing

Source: USDA, ARMS.
Summary

- Farm sector balance sheet forecasts farm assets in 2016 at $2,815 billion, of which $2,443 billion is farm equity and $373 billion is farm debt. Farm assets are expected to decline by 1.6 percent, farm equity to decline by 2.2 percent and farm debt to grow by 2.3 percent.

- Cropland values increased by $30 per acre or 0.7% to $4,130 per acre in 2015. The Corn Belt had the highest cropland values of $6,840 per acre, but experienced the largest decline of 2.3%.

- Cash rent for cropland was $144 per acre in 2015, an increase of 2.1% from the previous year. Cash rents in the Corn Belt are among the highest. Several states experienced zero or negative growth in cash rents.

- Farmland leasing was at 38.8% in 2012 with the rest of the land owned.

- Landowners rented out 353.7 million acres and received $31 billion in rent in 2014. Eighty-seven percent of the 2.1 million landowners do not farm themselves, but they collected 78% or $24 billion in rent.

- Young and beginning farmers own less farmland but young farmers rent more farmland than their established counterparts. Young farmers rapidly expand their operations – annual growth rates were 7.5% for owned land, 5.6% for rented land from 2002 to 2012.

- Farm financial performance indicators have deteriorated in 2014 since their peaks three years prior but are still in the acceptable ranges. Farm liquidity, measured by the current ratio, fell to 2.6 in 2014. Debt-to-asset ratio increased to 10.3% in 2014. The rate of return on assets of 1.4% and rate of return on equity of 1.1% in 2014 have fallen since their peak in 2012.