Background

The Economic Research Service forecasts the farm sector’s income statement and balance sheet

Last released February 9th

Includes 2015 and 2016 forecasts of:

– Income statement
– Balance sheet
– Financial metrics
– Farm business-level outlook
Net cash income (NCI) forecast down 2.5% in 2016

F=forecast
The GDP chain-type price index is used to convert the current-dollar statistics to real (inflation adjusted) amounts (2009=100)
Crop receipts drive the expected decline in NCI from 2013 to 2016

Net cash income declined $44.2 billion from 2013 to 2016F

All figures are in $ Billion
2016F crop receipts significantly lower than 2013, but flat from 2015

F = Forecast.
* Excluding corn and soybeans.
Data as of February 9, 2016.
Animal receipts are also expected to fall for most categories in 2016.

![Bar chart showing animal receipts for different categories in billions of dollars from 2009 to 2016.]

F = Forecast
Data as of February 9th, 2016.
Government payments are forecast to rise over 30 percent in 2016

F= Forecast.
Government payments based on price are a larger share in 2016

$ billion


F = Forecast.


<table>
<thead>
<tr>
<th>Fixed payments</th>
<th>Crop price based payments</th>
<th>All other payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed direct payments and cotton transition payments.</td>
<td>PLC, ARC, ACRE, counter-cyclical payments, and other programs where payments vary with market prices.</td>
<td>Disaster relief payments, tobacco transition payments, dairy program payments, and conservation payments.</td>
</tr>
</tbody>
</table>
Cash expenses are expected to decline for the second consecutive year.
Feed, fuel, fertilizer, and livestock expenses drive decline in 2016

$ billion

Feed, Livestock & poultry, Fertilizer, Fuels & Oils, Pesticides, Labor, Net rent, Seeds, Interest, Property taxes/fees

F = forecast
Farm Sector Balance Sheet Outlook
Forecast drop in net cash income drives lower farm real estate values*

F= Forecast. Values are adjusted using the chain-type GDP deflator, 2009=100.
*Real estate includes the value of land and buildings
Farm real estate* represents the majority of the sector’s assets

F= Forecast. Values are adjusted using the chain-type GDP deflator, 2009=100.
*Real estate includes the value of land and buildings
Drop in 2016F farm real estate assets drive change in total assets

F = Forecast.  *Real estate includes the value of land and buildings
Farm real estate and nonreal estate debt approaching historic levels

$ billion (2009 Dollars)

Real estate debt
Nonreal estate debt

F= Forecast. Values are adjusted using the chain-type GDP deflator, 2009=100.
But below the late ‘70s – early ‘80s peak in inflation-adjusted terms

$ billion (2009 Dollars)

Real estate debt
Nonreal estate debt

F= Forecast. Values are adjusted using the chain-type GDP deflator, 2009=100.
Farm debt is forecast to grow rapidly from 2013 to 2016

12% growth forecast from 2013-2016F

27% growth forecast from 2013-2016F

Real estate debt

Nonreal estate debt

F=Forecast
Sector leverage has increased since 2012, but remains historically low.

Percent


Debt-to-equity ratio

Debt-to-asset ratio

F = Forecast.
Rate of return on farm assets (ROA) expected to remain flat in 2016

F = forecast.
Rate of return on farm assets (ROA) expected to remain flat in 2016

Decomposing the rate of return on farm assets (ROA)

\[ ROA = \text{Asset Turnover Ratio} \]

Value of production
that assets generate
Rate of return on farm assets (ROA) expected to remain flat in 2016

\[ ROA = \text{Asset Turnover Ratio} \times \text{Profit Margin Ratio} \]

Value of production that assets generate
Profit margin on value of production


Decomposing the rate of return on farm assets (ROA)
Lower profit margins drive decline in ROA from 2013 to 2016

Rate of return on assets from income

Operating profit margin ratio

Asset Turnover Ratio

F = forecast.
Farm Business Outlook
Farm businesses account for 45% of farms, but over 90% of production

Operators report they are retired or have a major occupation other than farming.

Gross cash farm income less than $350,000 and operators report farming as their major occupation.

Gross cash farm income greater than $350,000 and farms organized as nonfamily corporations or cooperatives.

Source: 2014 Agricultural Resource Management Survey (ARMS)
Average net cash farm income up for most crop farm businesses

F = forecast.
1/ Farm business forecasts apply a partial budget model on the 2014 Agricultural Resource Management Survey (ARMS) using parameters from the sector forecasts. Data as of February 9, 2016.
Average net cash income expected to fall for most farm businesses specializing in animals and products

$ thousand

F = forecast.

1/ Farm business forecasts apply a partial budget model on the 2014 Agricultural Resource Management Survey (ARMS) using parameters from the sector forecasts. Data as of February 9, 2016.
All Farm Businesses $87,700 in 2016
Share of highly leveraged farm businesses forecast to increase in 2016

F = forecast.
Presentation takeaways

• Net cash income expected down slightly in 2016, but relatively flat from 2015.

• Large declines in net cash income since 2013 are driven by lower crop receipts paired with increasing expenses.

• Lower income is expected to put modest downward pressure on farm real estate asset values.
  – Changes in farm real estate asset values drive changes in total farm assets.

• Farm debt, particularly nonreal estate debt, has grown rapidly since 2013.

• Financial metrics indicate the farm sector remains in good standing.
  – An increasing but small group of farms is highly leveraged.
Additional analysis and data

Farm Sector Income and Wealth Statistics

Data product updated 3 times per year.
Next update: August 30th, 2016.

Explore the data

Visualizations let you dive into the financials of the farm sector

Get to Know Your State

Digging into the Farm Balance Sheet

Farm Income Atlas

QUESTIONS?

Ryan Kuhns
RNKuhns@ers.usda.gov

Kevin Patrick
KTPatrick@ers.usda.gov

Farm Income Team
farmincometeam@ers.usda.gov