

Farm Sector Income & Finances 2016 Outlook

By Ryan Kuhns and Kevin Patrick

February 25, 2016

Economic Research Service
www.ers.usda.gov



Background

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

Last released February 9th

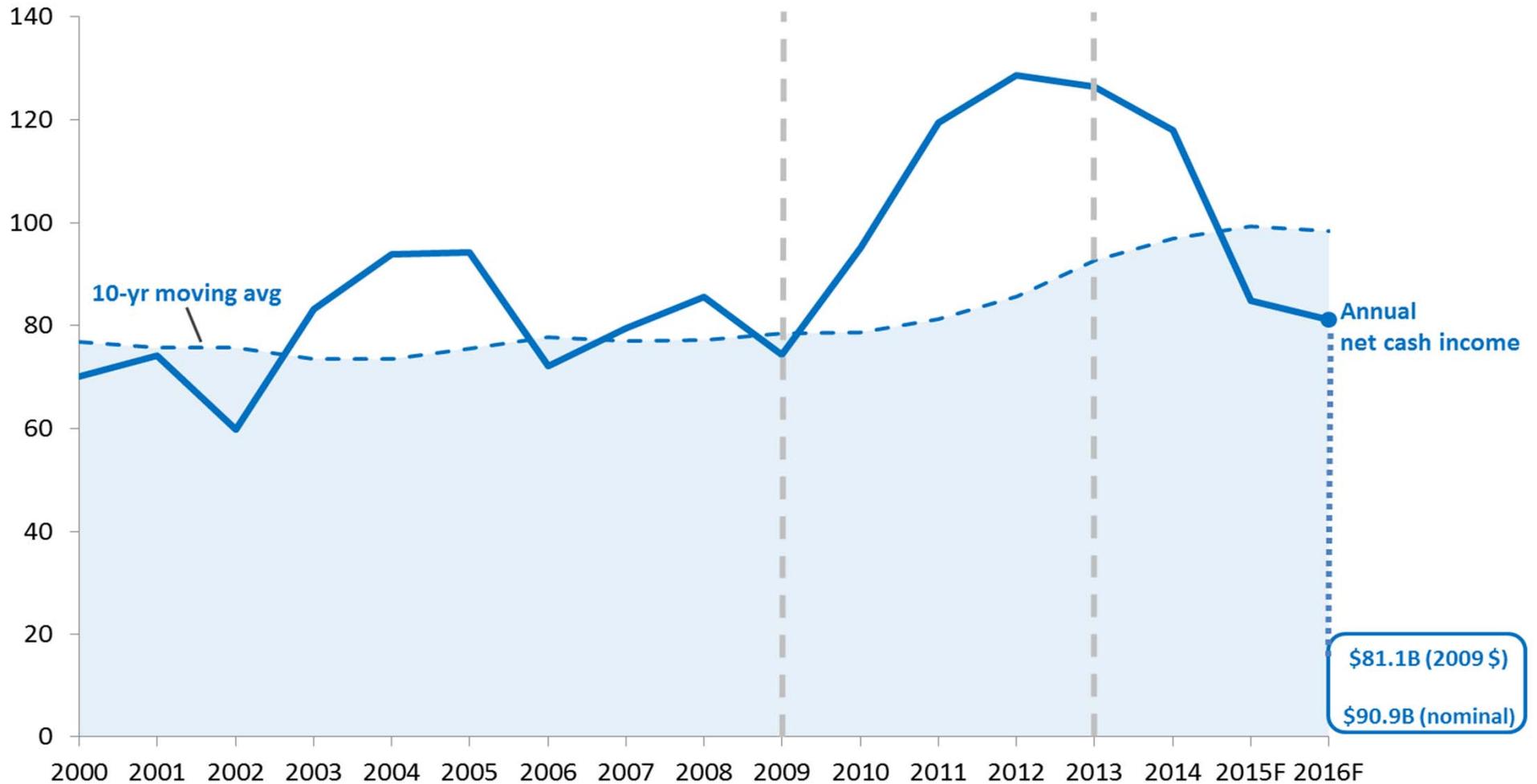
Includes 2015 and 2016 forecasts of:

- Income statement
- Balance sheet
- Financial metrics
- Farm business-level outlook



Net cash income (NCI) forecast down 2.5% in 2016

\$Billion (2009 Dollars)



F=forecast

The GDP chain-type price index is used to convert the current-dollar statistics to real (inflation adjusted) amounts (2009=100)

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.

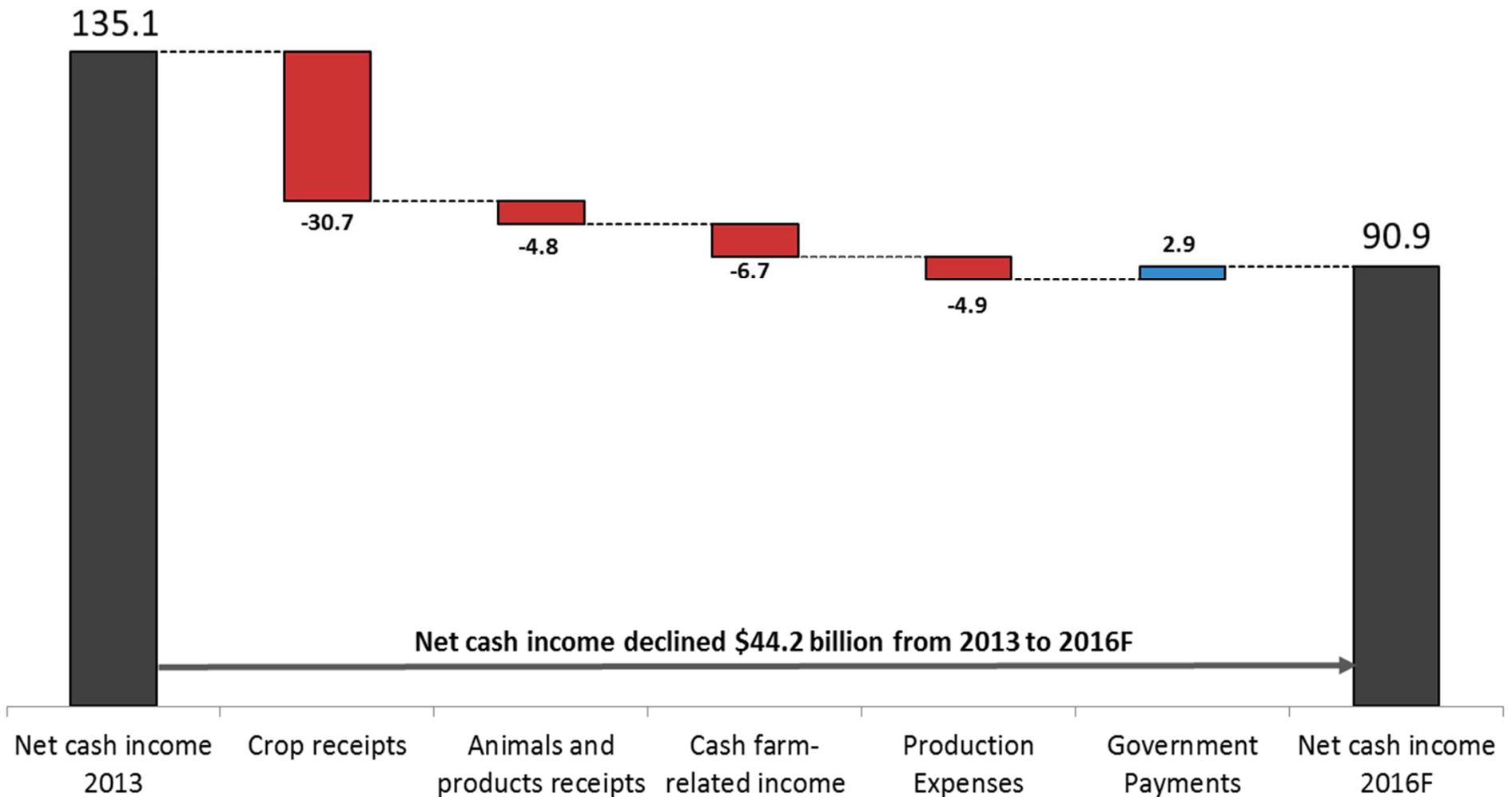


Economic Research Service

www.ers.usda.gov



Crop receipts drive the expected decline in NCI from 2013 to 2016

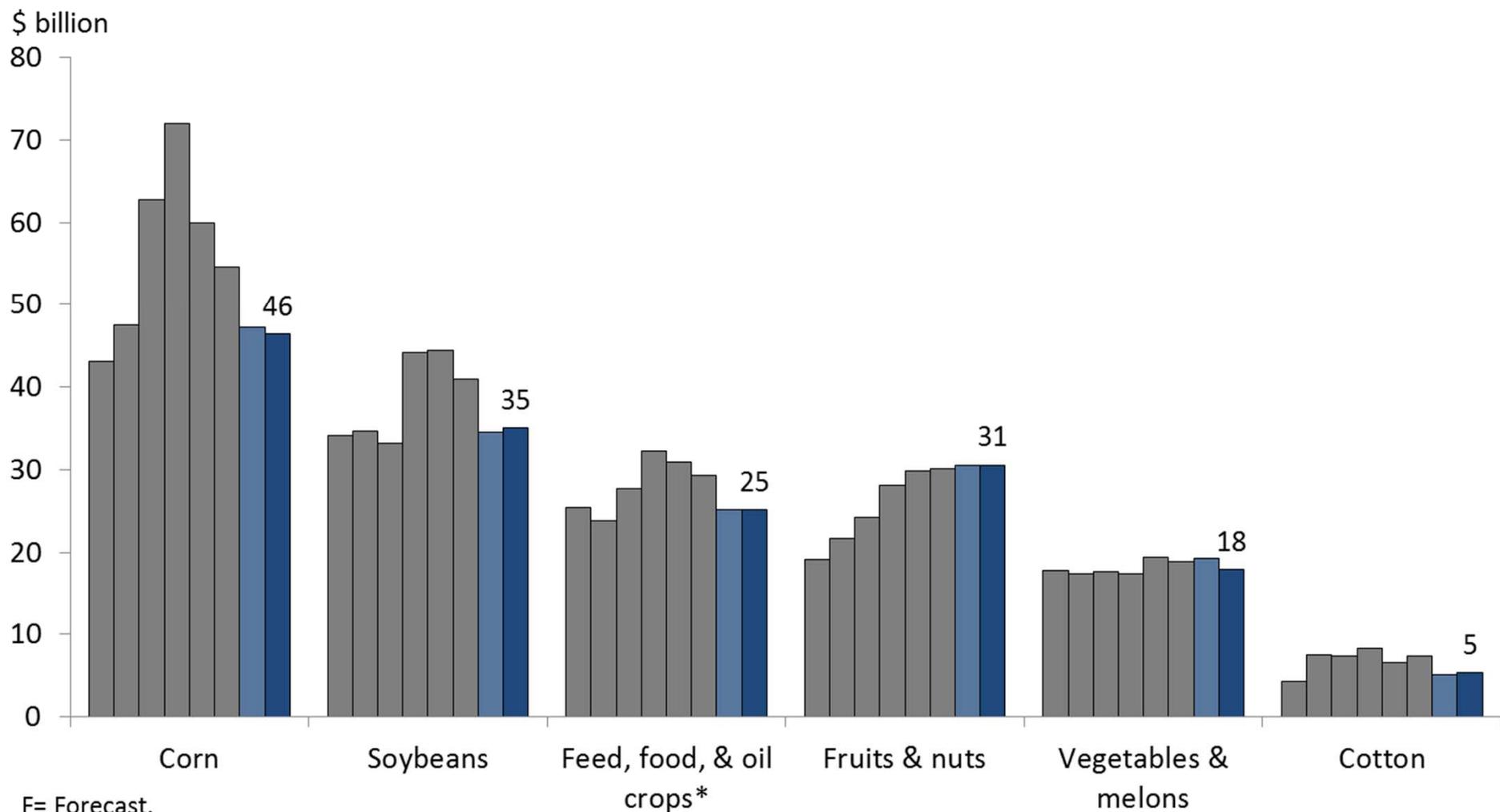


All figures are in \$ Billion

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.



2016F crop receipts significantly lower than 2013, but flat from 2015



F= Forecast.

* Excluding corn and soybeans.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.

Data as of February 9, 2016.

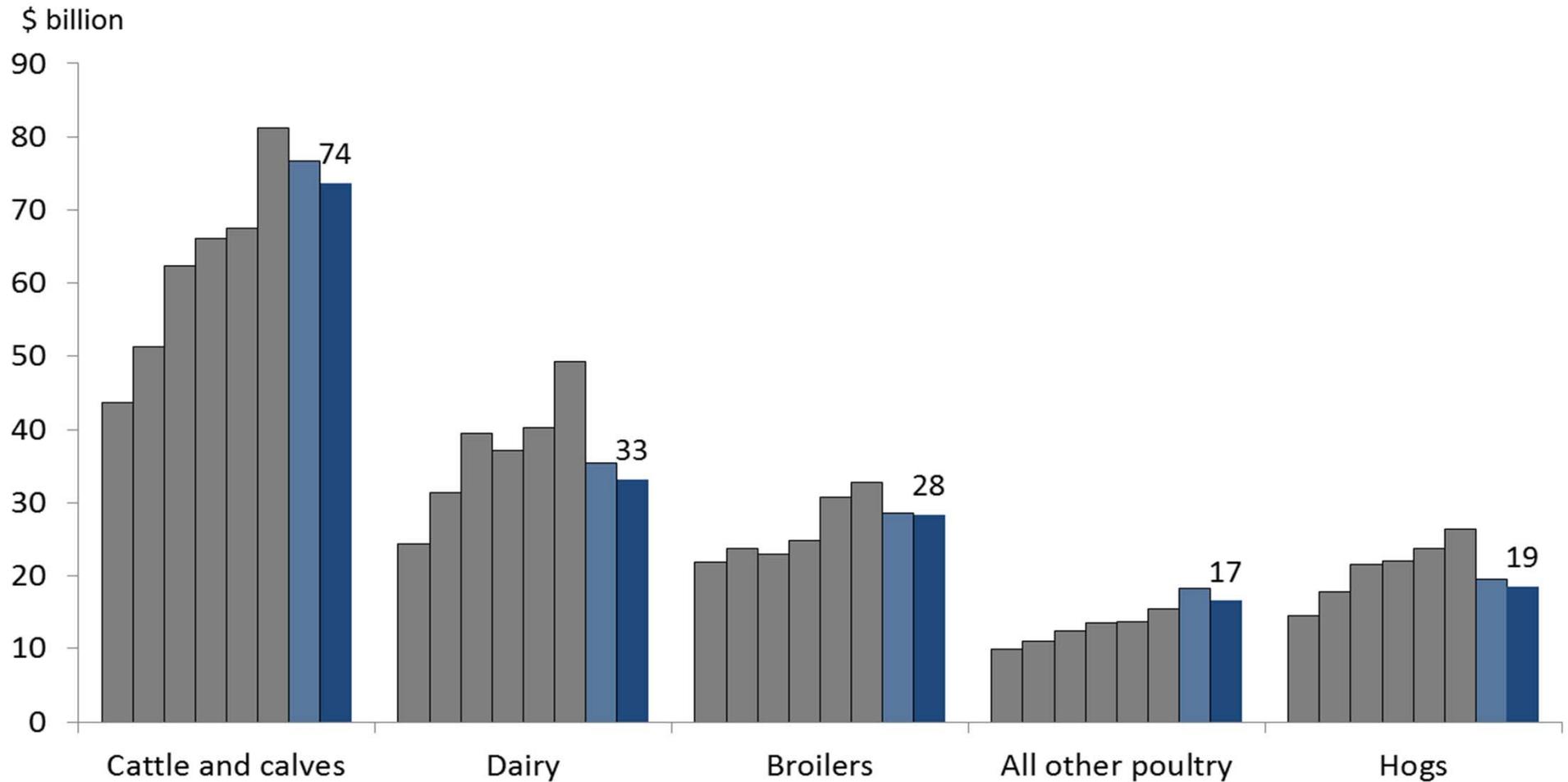


Economic Research Service

www.ers.usda.gov



Animal receipts are also expected to fall for most categories in 2016



F= Forecast

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.

Data as of February 9th, 2016.

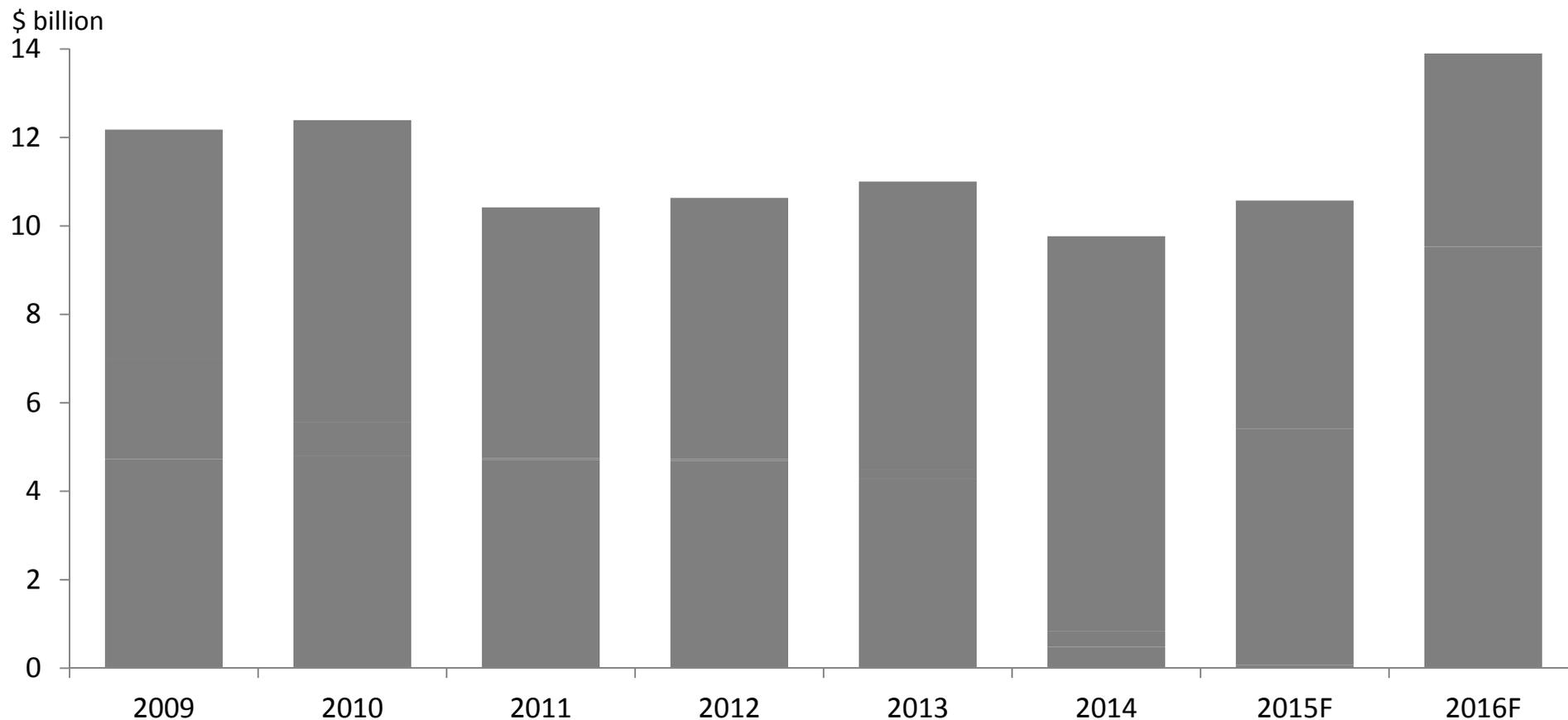


Economic Research Service

www.ers.usda.gov



Government payments are forecast to rise over 30 percent in 2016



F= Forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics using FSA, NRCS, and CCC data. Data as of February 9, 2016.

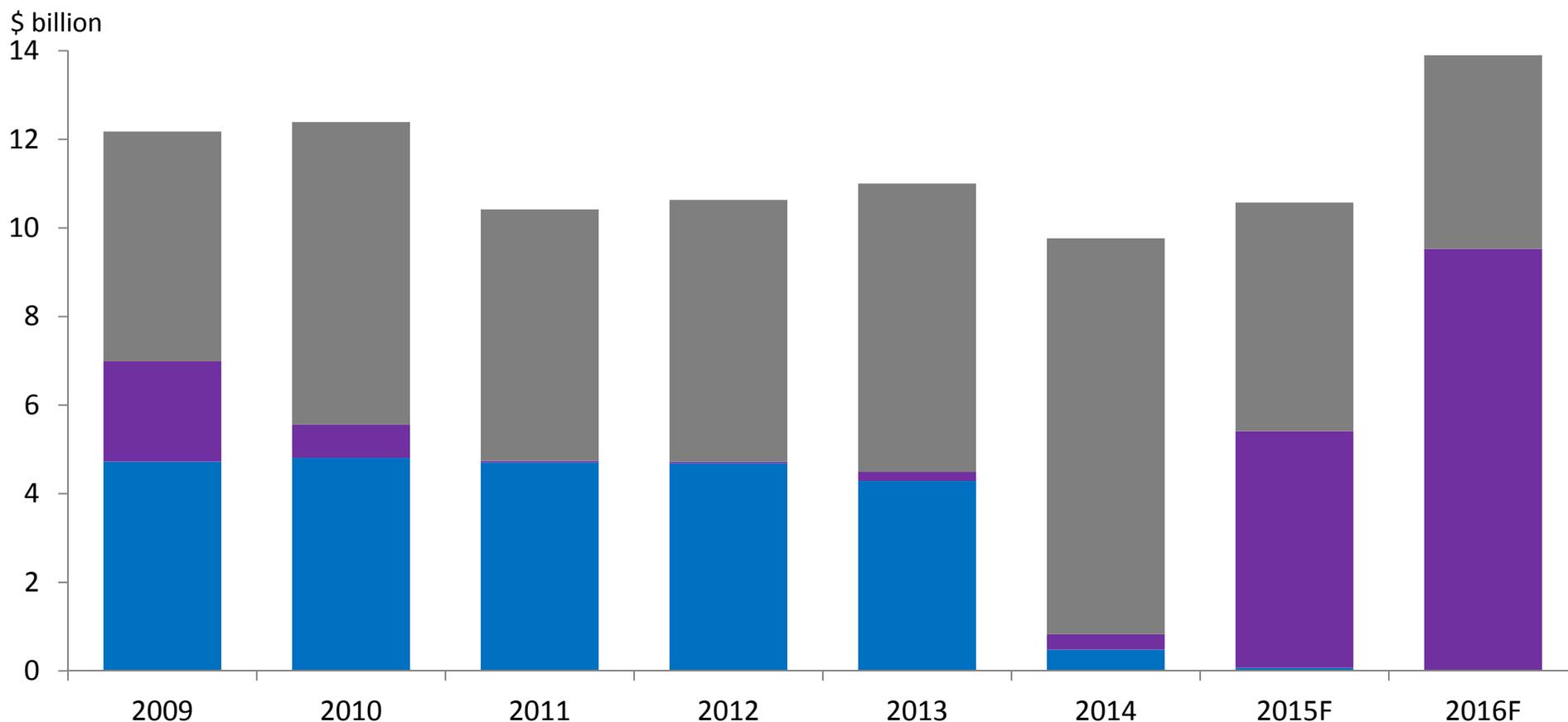


Economic Research Service

www.ers.usda.gov



Government payments based on price are a larger share in 2016



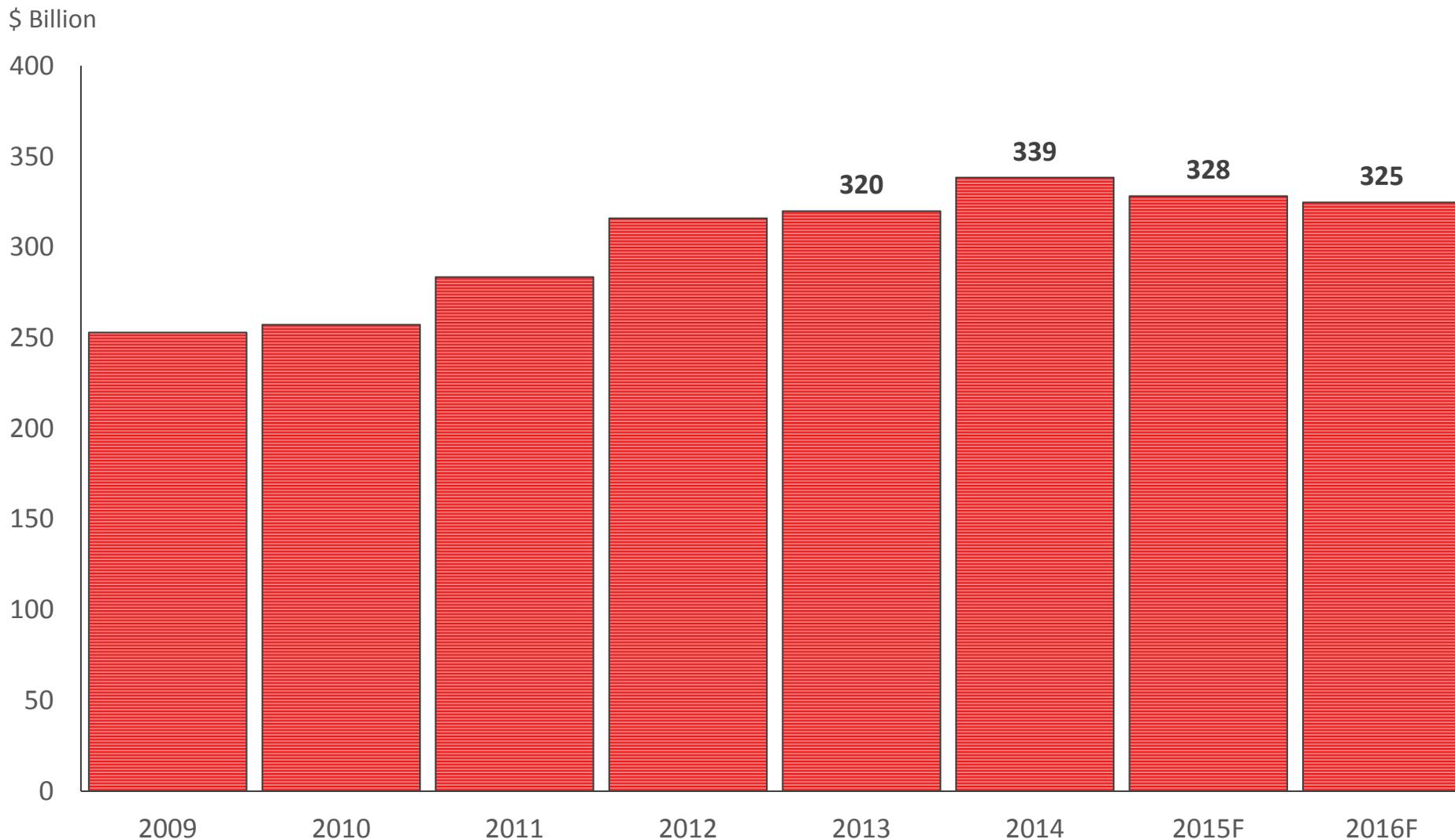
F= Forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics using FSA, NRCS, and CCC data. Data as of February 9, 2016.

Fixed payments	Crop price based payments	All other payments
Fixed direct payments and cotton transition payments.	PLC, ARC, ACRE, counter-cyclical payments, and other programs where payments vary with market prices.	Disaster relief payments, tobacco transition payments, dairy program payments, and conservation payments.



Cash expenses are expected to decline for the second consecutive year

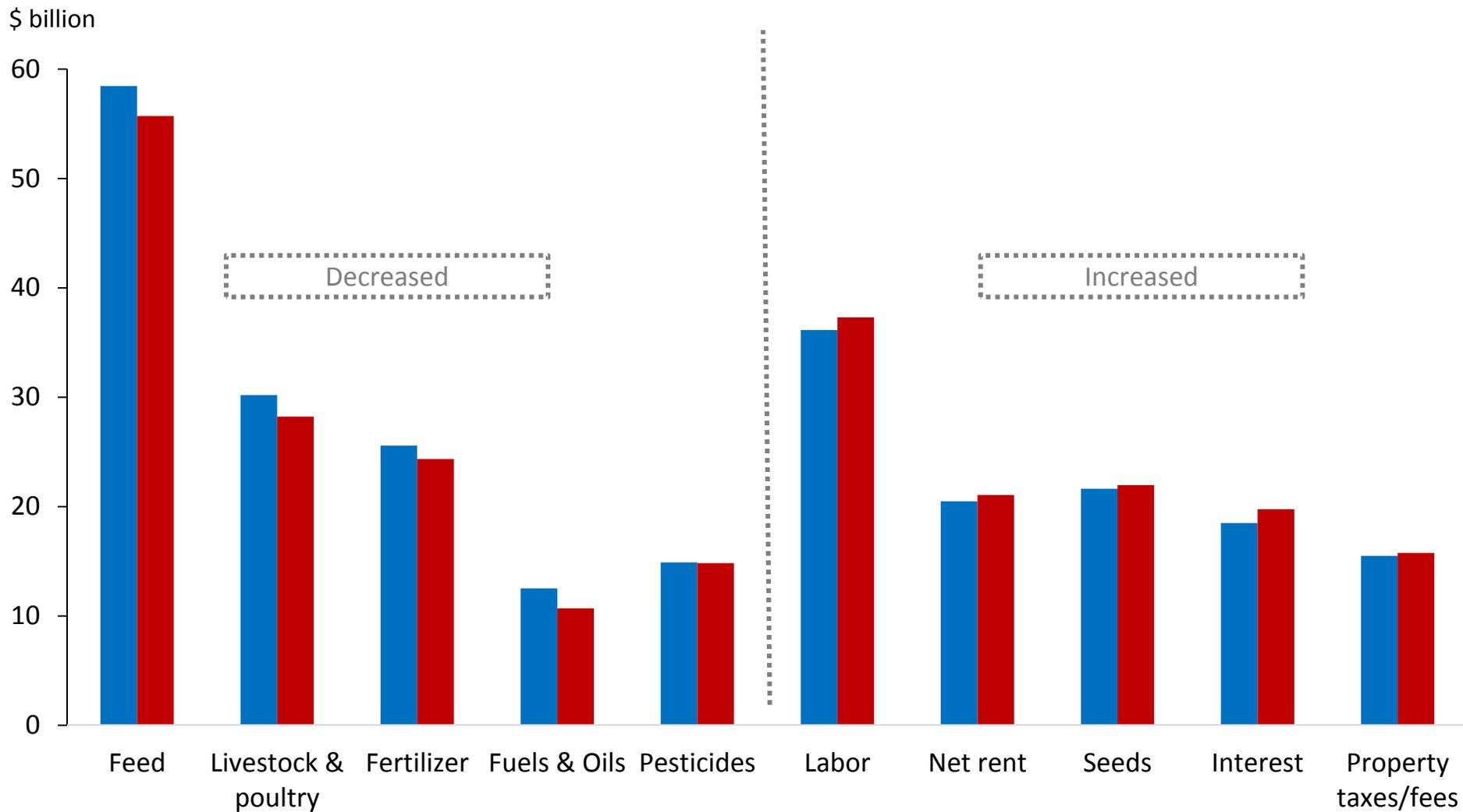


F = forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.



Feed, fuel, fertilizer, and livestock expenses drive decline in 2016



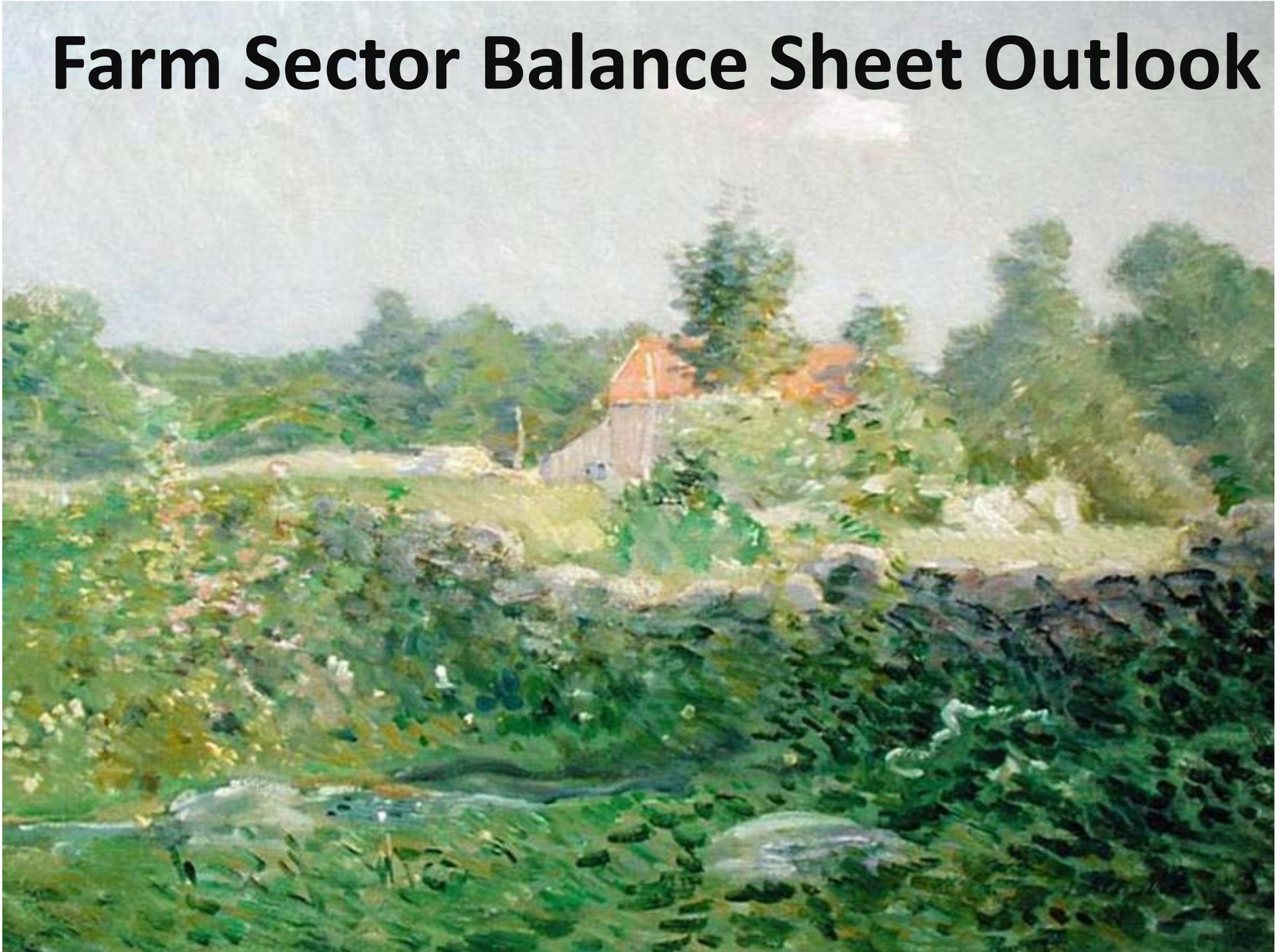
F = forecast

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.

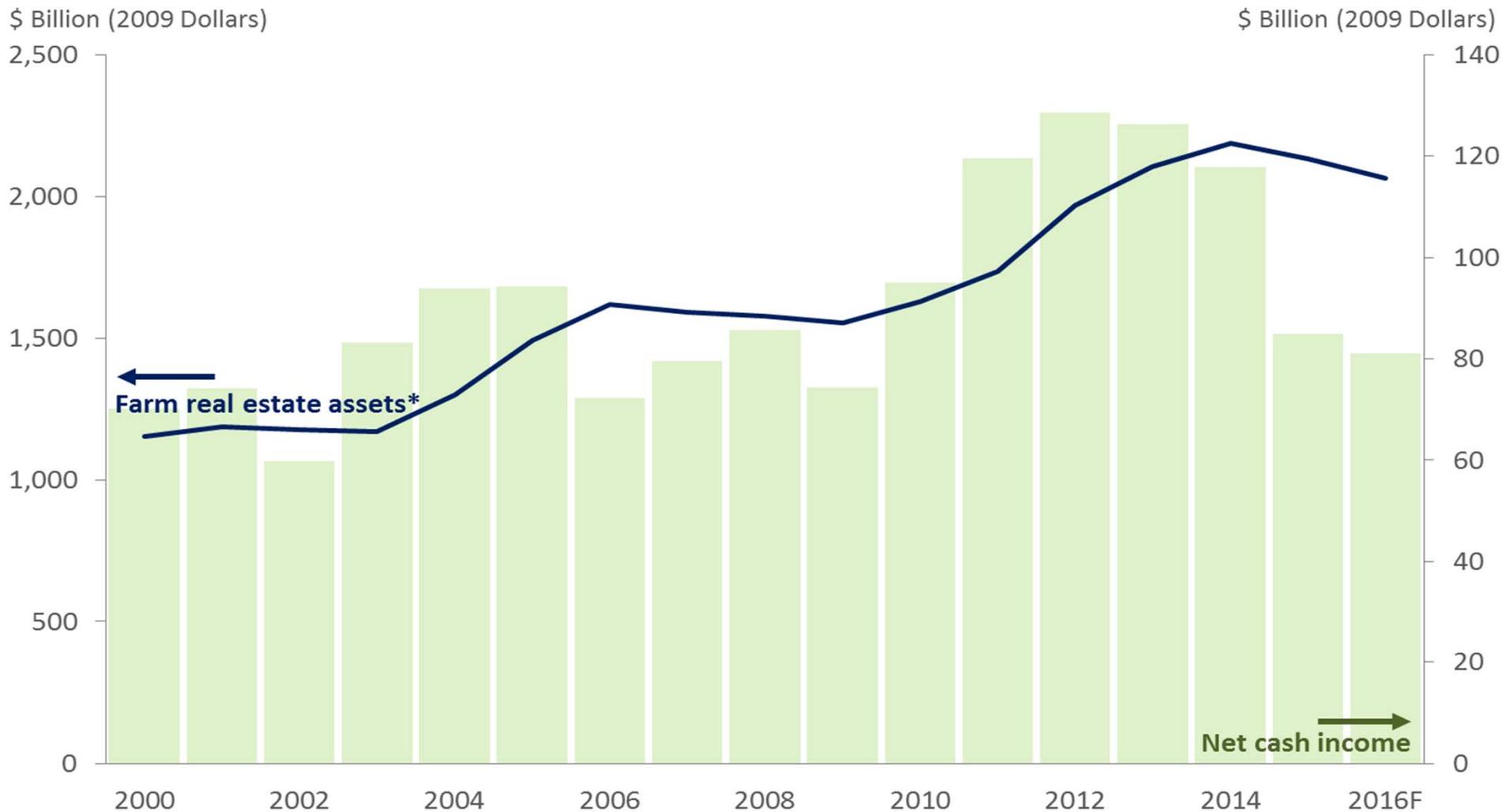
■ 2015F ■ 2016F



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

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.

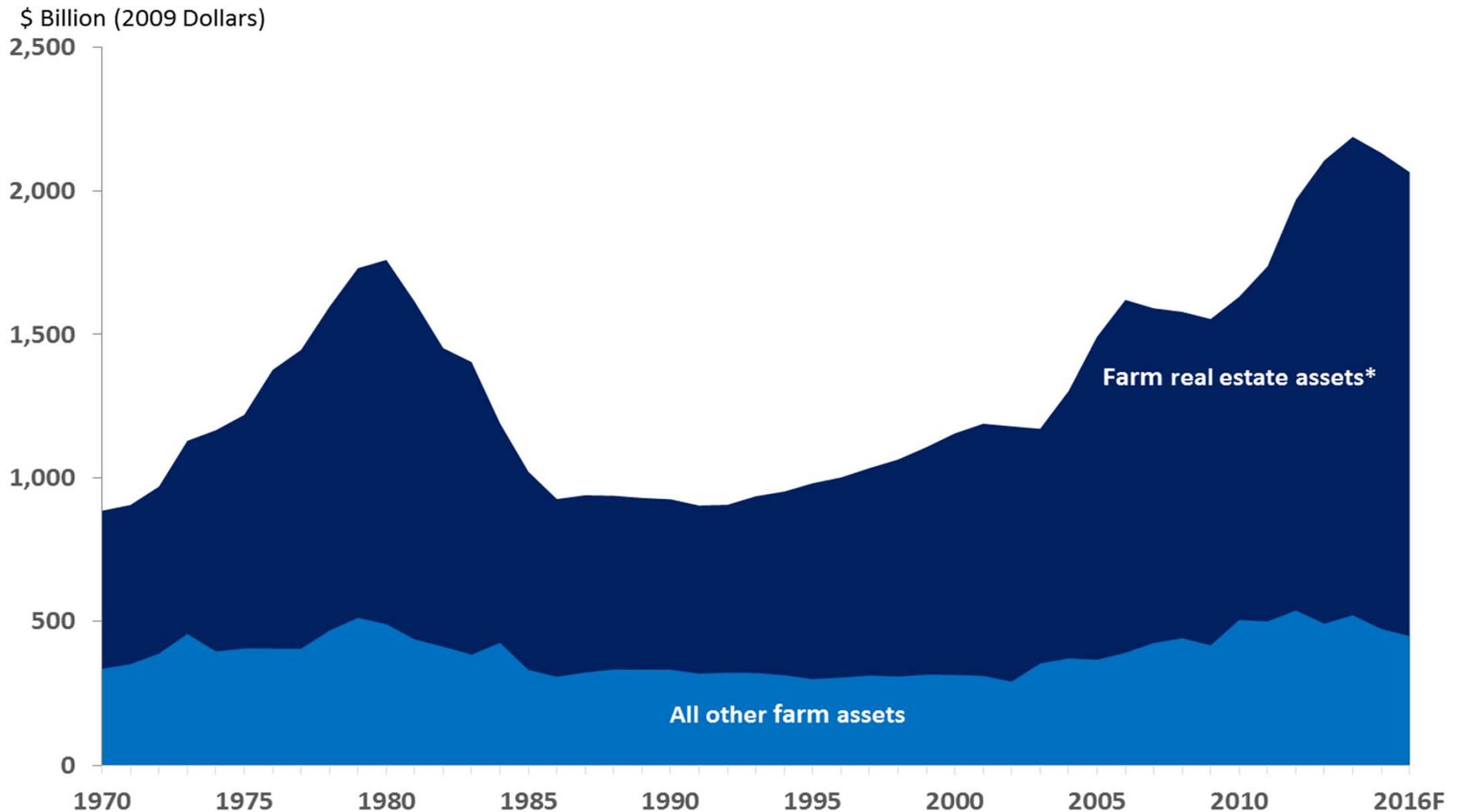


Economic Research Service

www.ers.usda.gov



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

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.

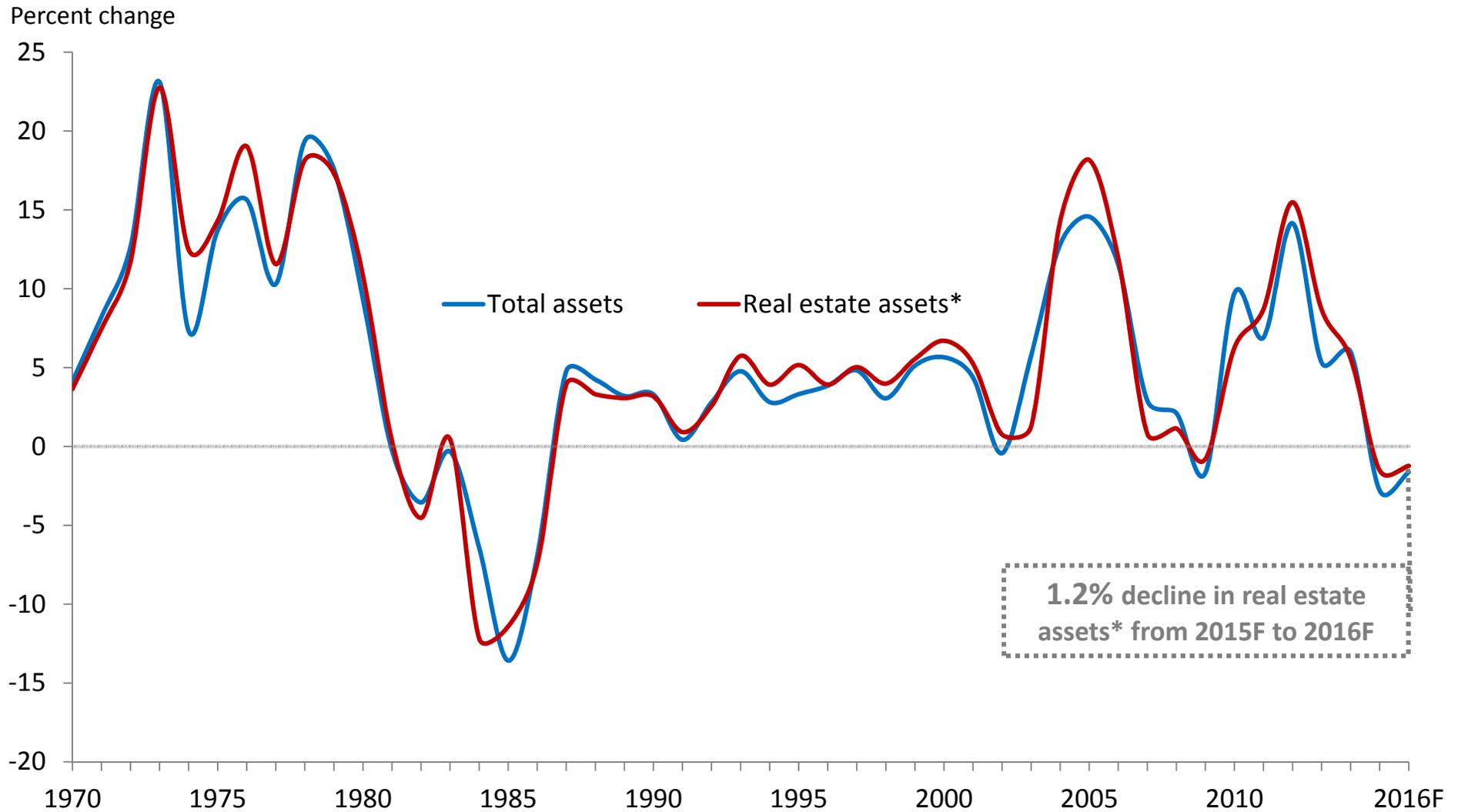


Economic Research Service

www.ers.usda.gov



Drop in 2016F farm real estate assets drive change in total assets

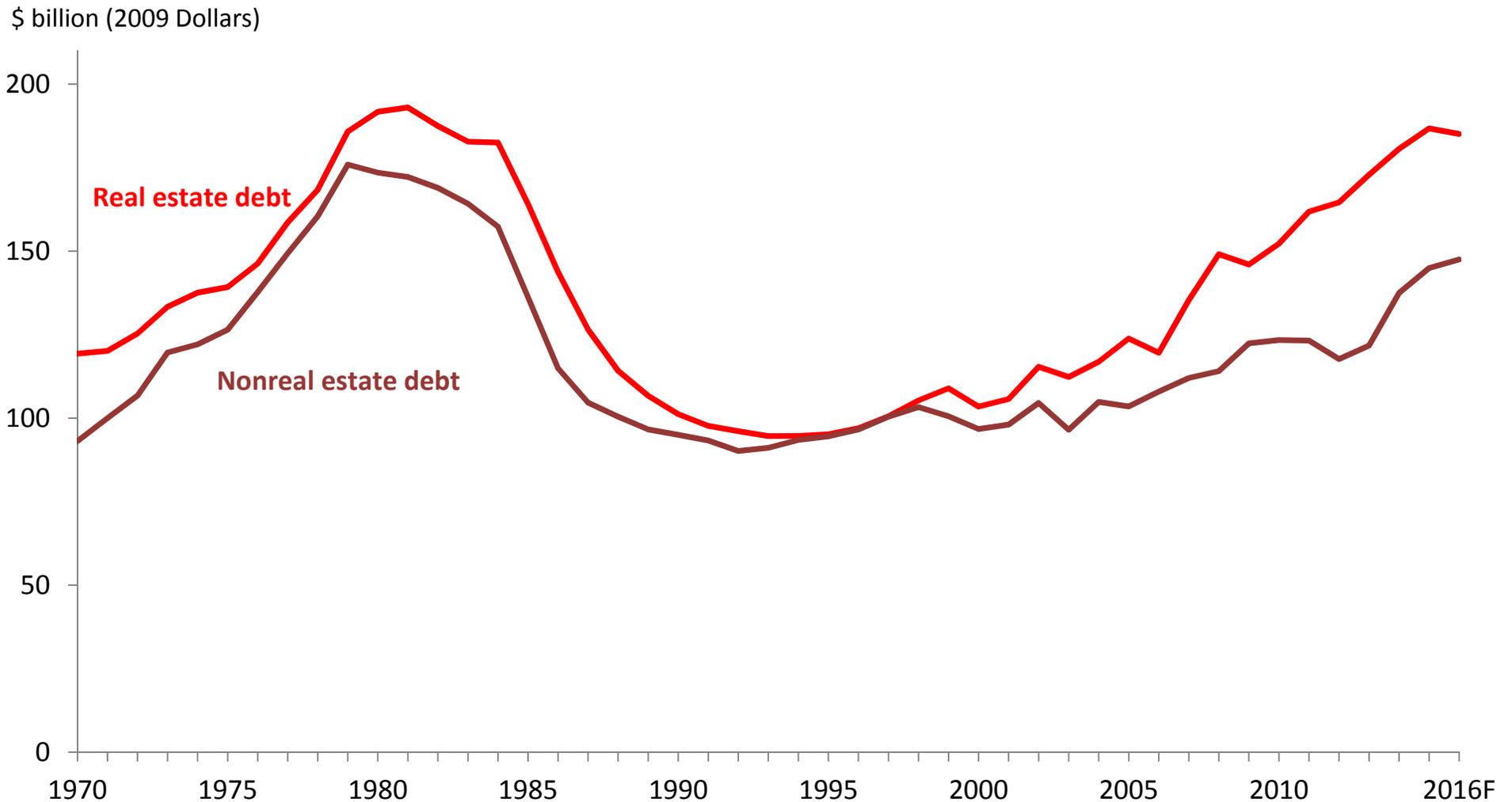


F= Forecast. *Real estate includes the value of land and buildings

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.



Farm real estate and nonreal estate debt approaching historic levels

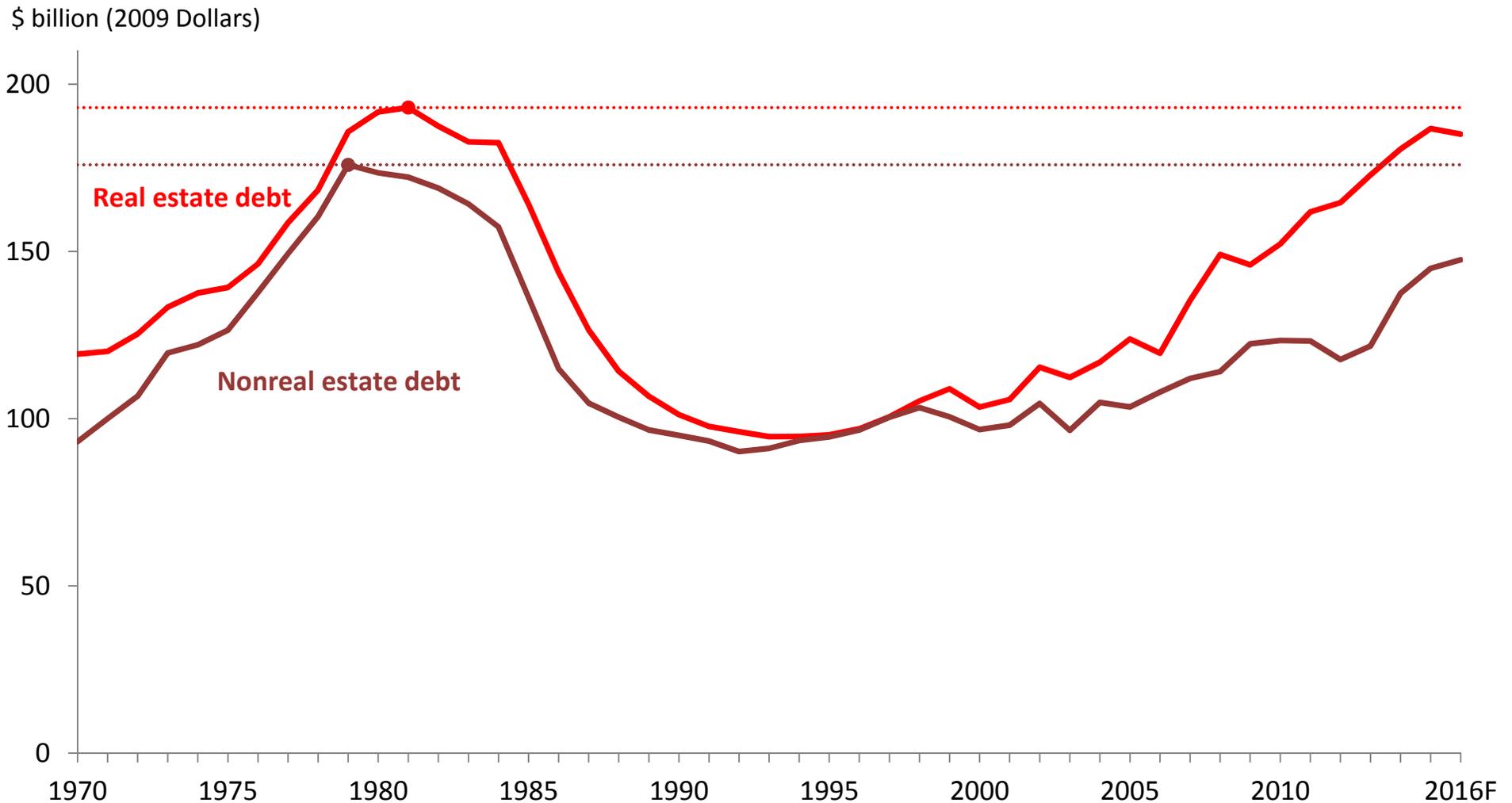


F= Forecast. Values are adjusted using the chain-type GDP deflator, 2009=100.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.



But below the late '70s – early '80s peak in inflation-adjusted terms

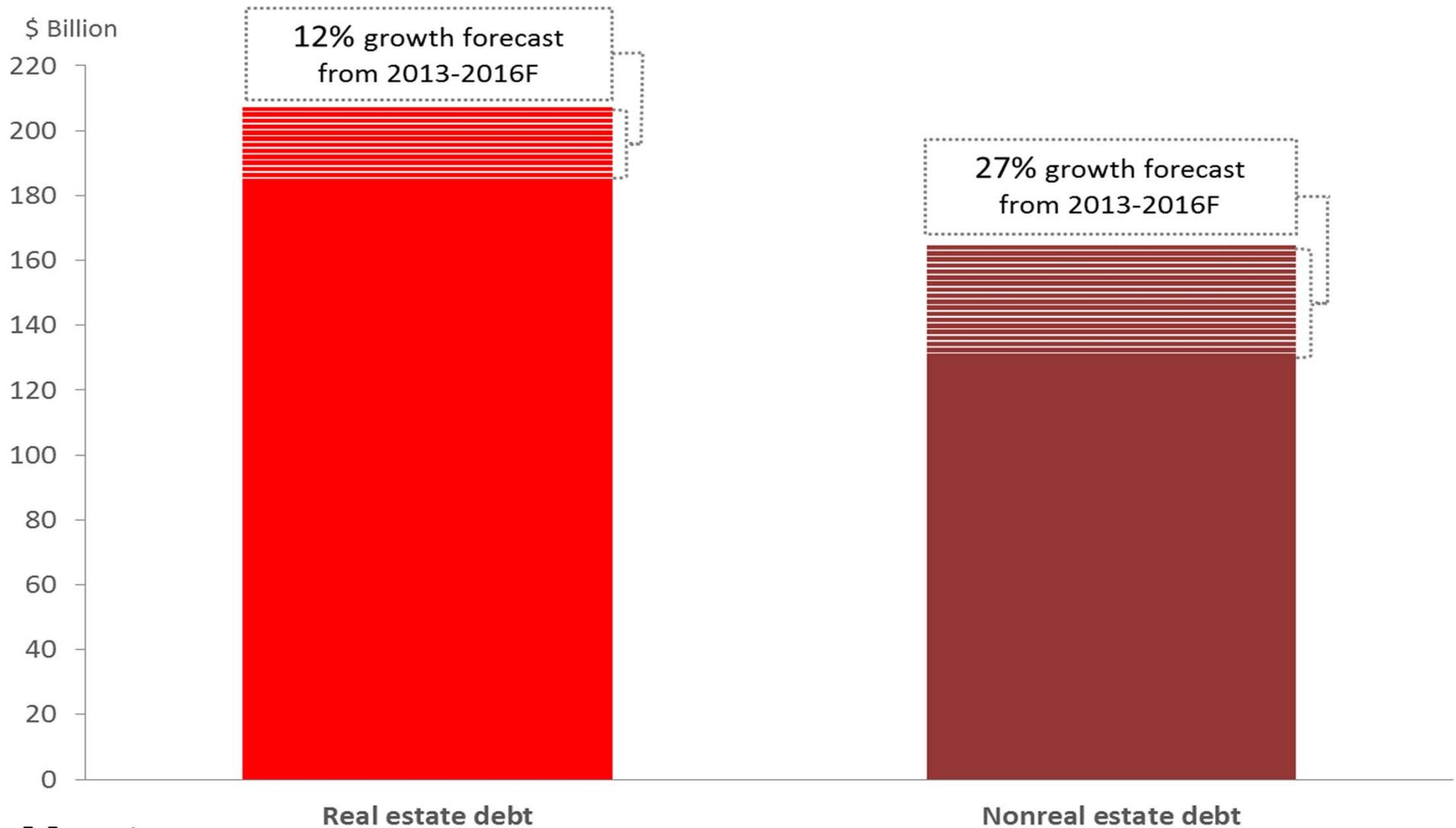


F= Forecast. Values are adjusted using the chain-type GDP deflator, 2009=100.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.



Farm debt is forecast to grow rapidly from 2013 to 2016



F=Forecast

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.

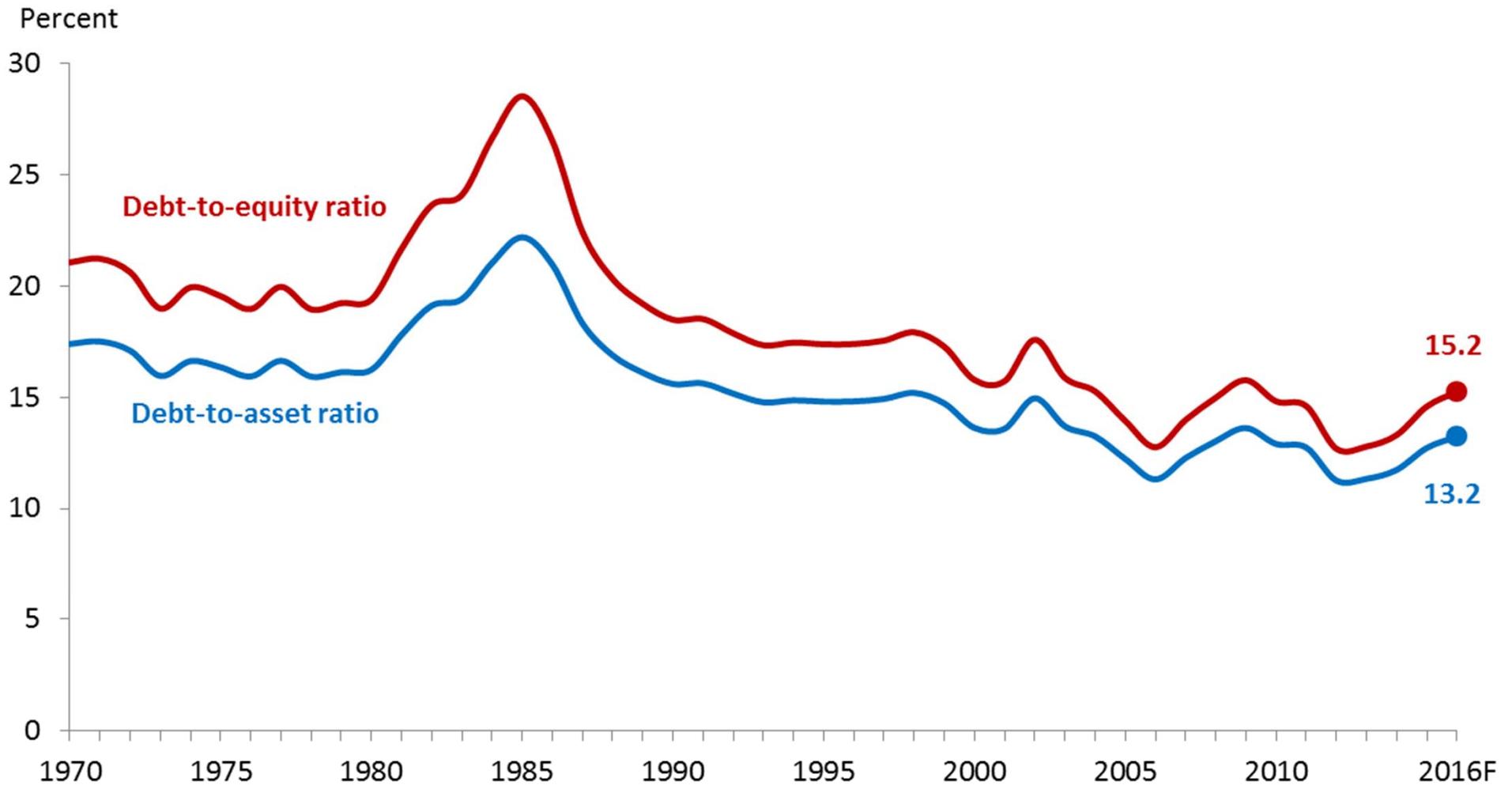


Economic Research Service

www.ers.usda.gov



Sector leverage has increased since 2012, but remains historically low



F= Forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016

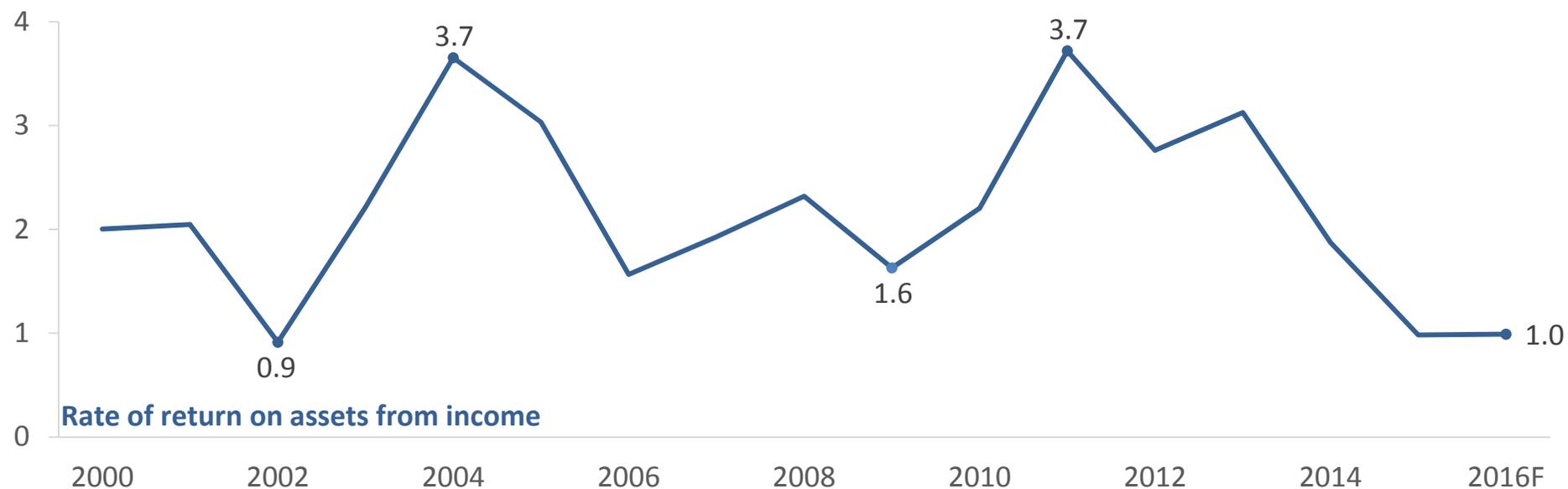


Economic Research Service

www.ers.usda.gov



Rate of return on farm assets (ROA) expected to remain flat in 2016

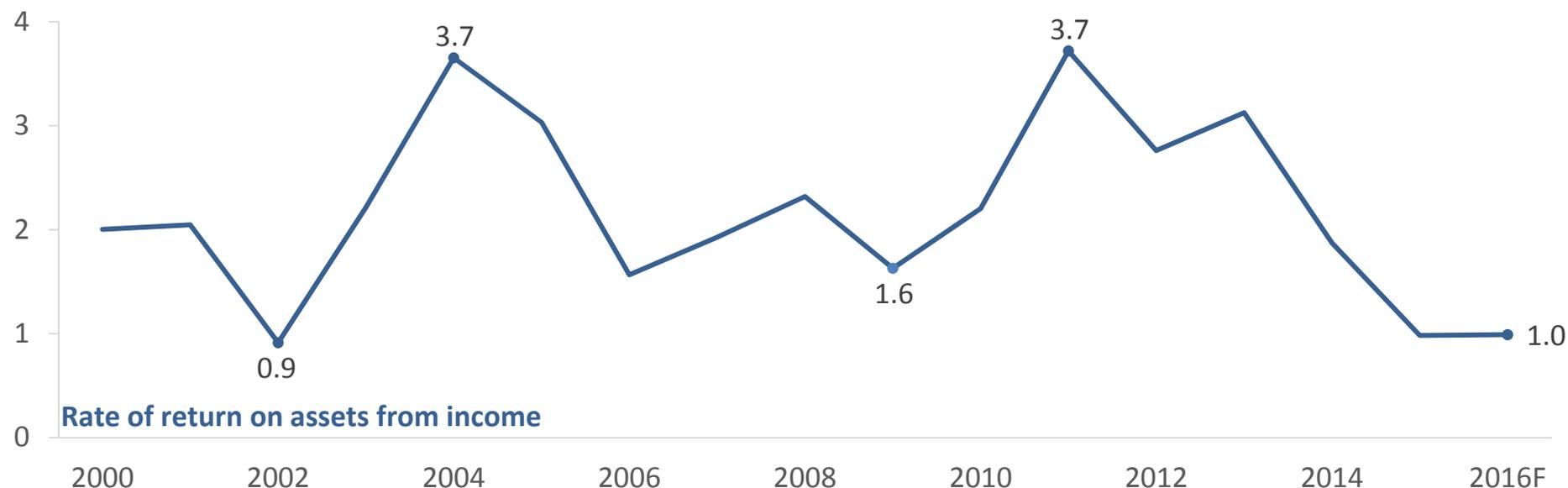


F = forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.



Rate of return on farm assets (ROA) expected to remain flat in 2016



F = forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.

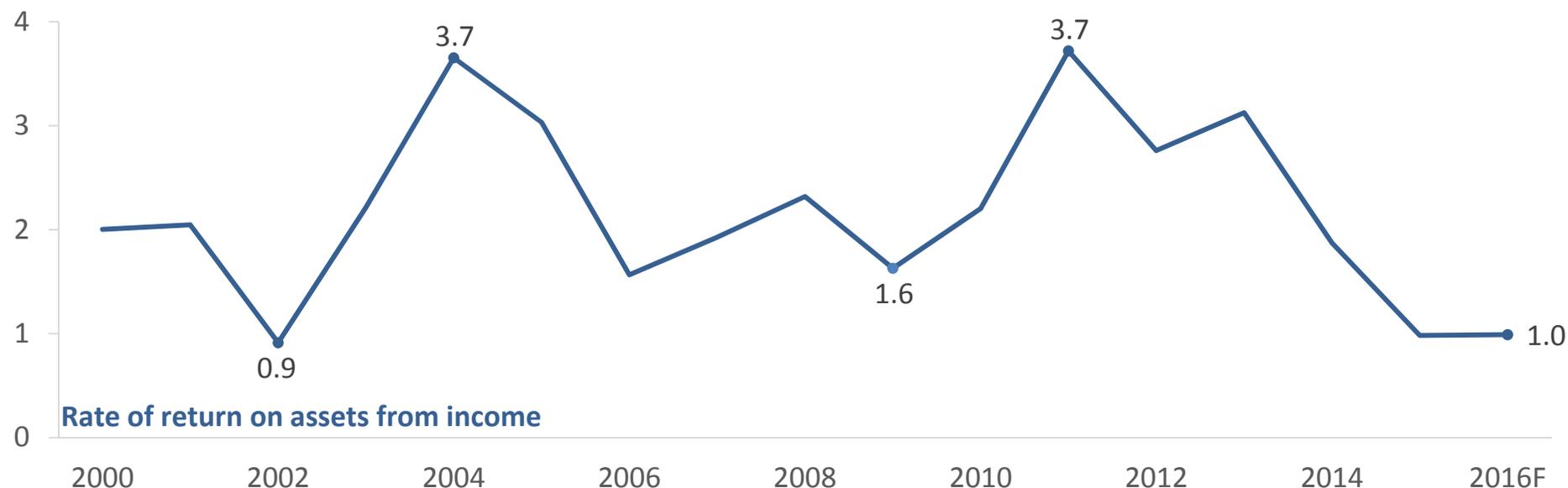
Decomposing the rate of return on farm assets (ROA)

$$ROA = \text{Asset Turnover Ratio}$$

Value of production
that assets generate



Rate of return on farm assets (ROA) expected to remain flat in 2016



F = forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.

Decomposing the rate of return on farm assets (ROA)

$$ROA = \text{Asset Turnover Ratio} * \text{Profit Margin Ratio}$$

Value of production
that assets generate

Profit margin on
value of production



Lower profit margins drive decline in ROA from 2013 to 2016



F = forecast.

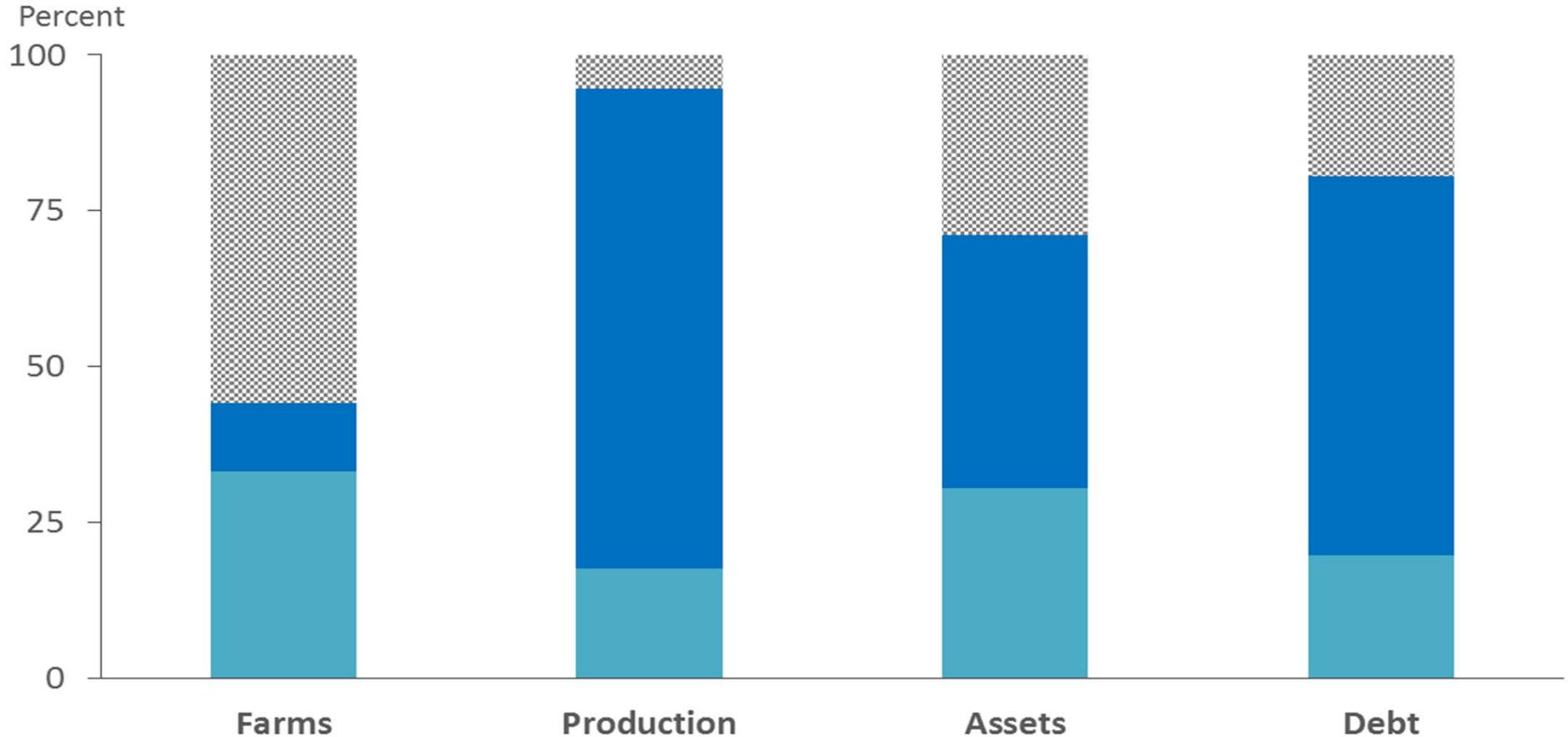
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.





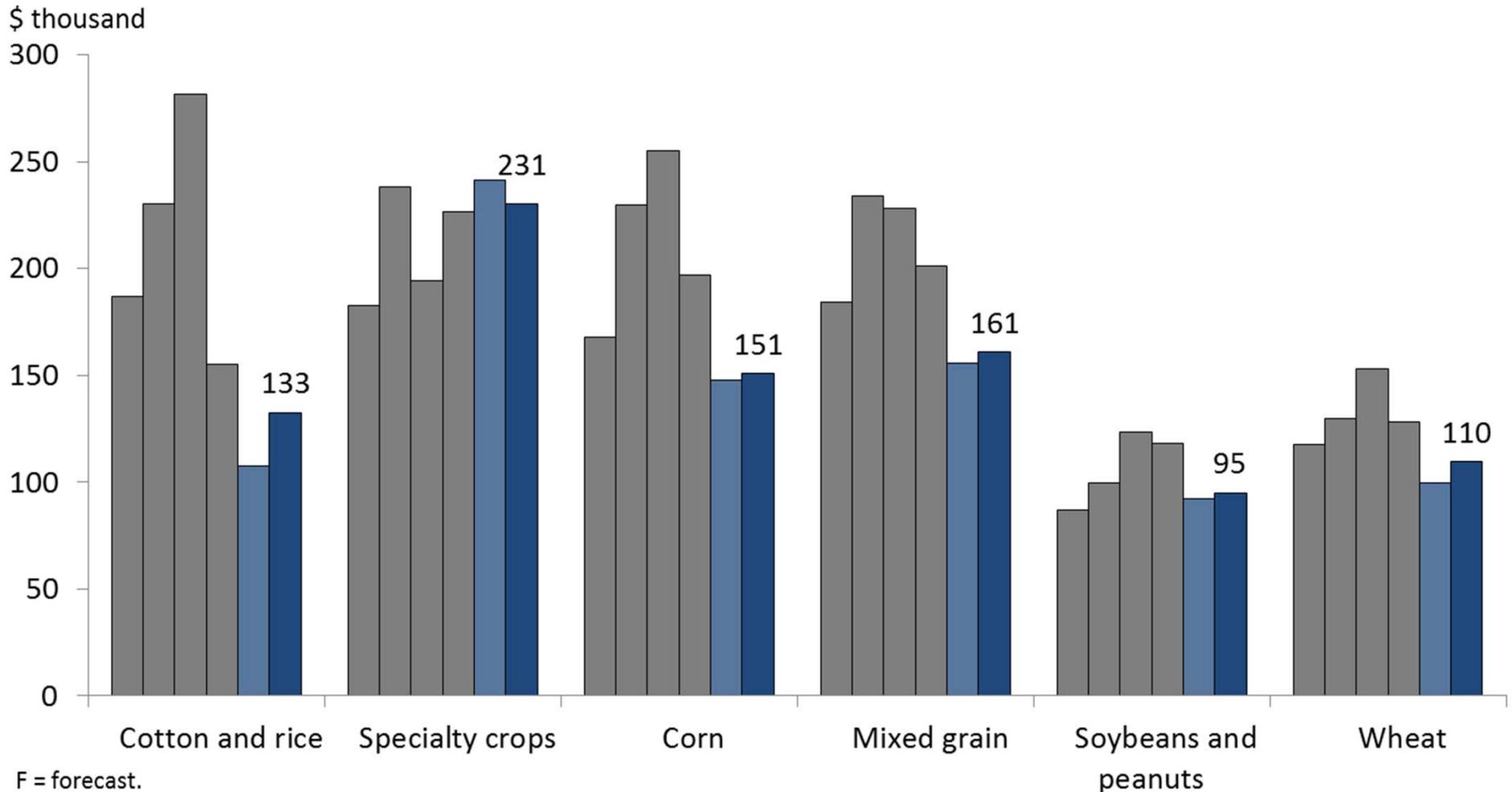
Farm Business Outlook

Farm businesses account for 45% of farms, but over 90% of production



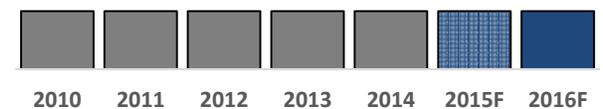
Farm Businesses		
Residence	Intermediate	Commercial
Operators report they are retired or have a major occupation other than farming.	Gross cash farm income less than \$350,000 and operators report farming as their major occupation.	Gross cash farm income greater than \$350,000 and farms organized as nonfamily corporations or cooperatives.

Average net cash farm income up for most crop farm businesses ^{1/}

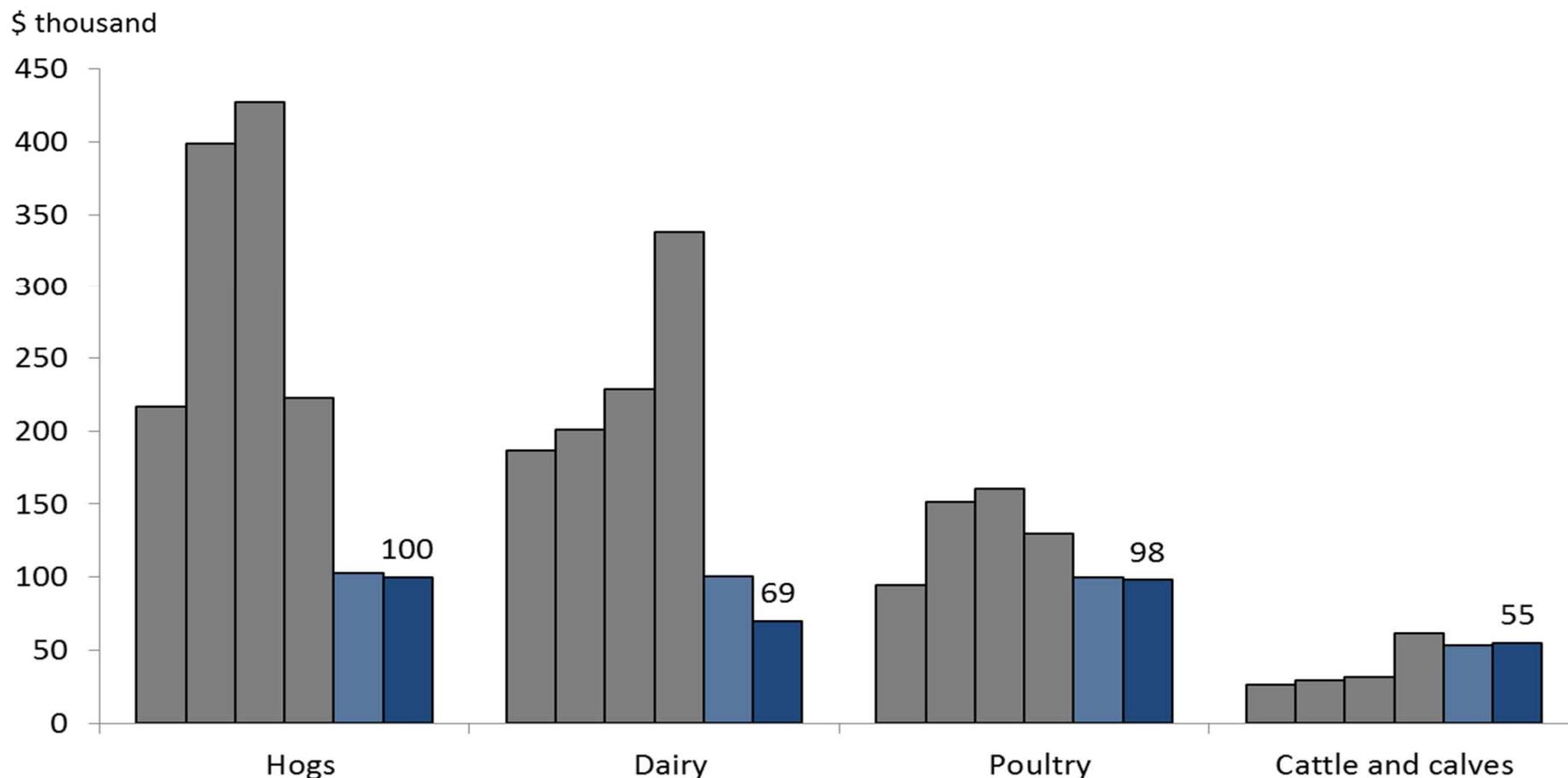


F = forecast.

^{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.

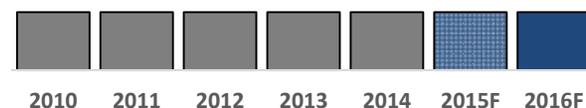


Average net cash income expected to fall for most farm businesses specializing in animals and products ^{1/}

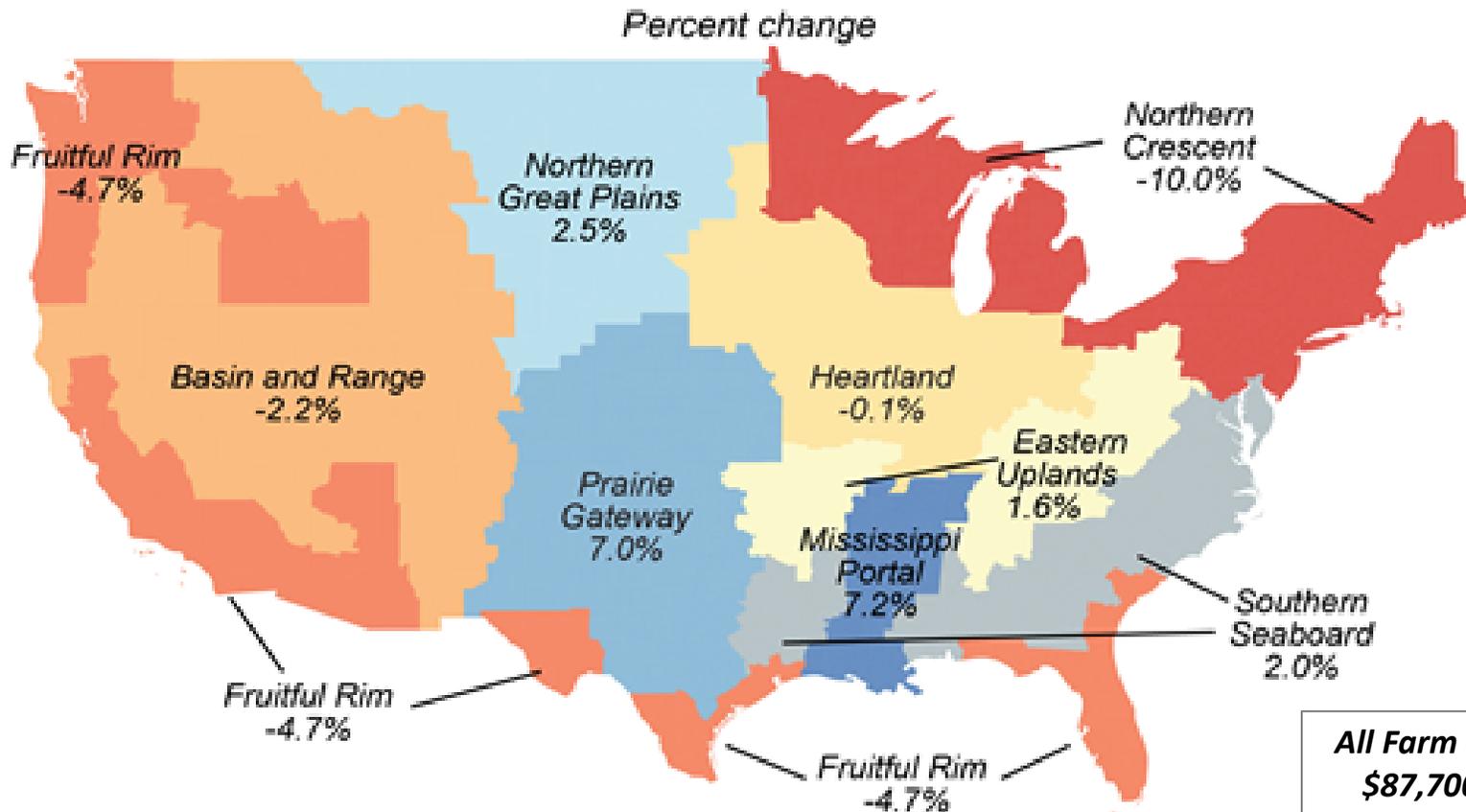


F = forecast.

^{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.



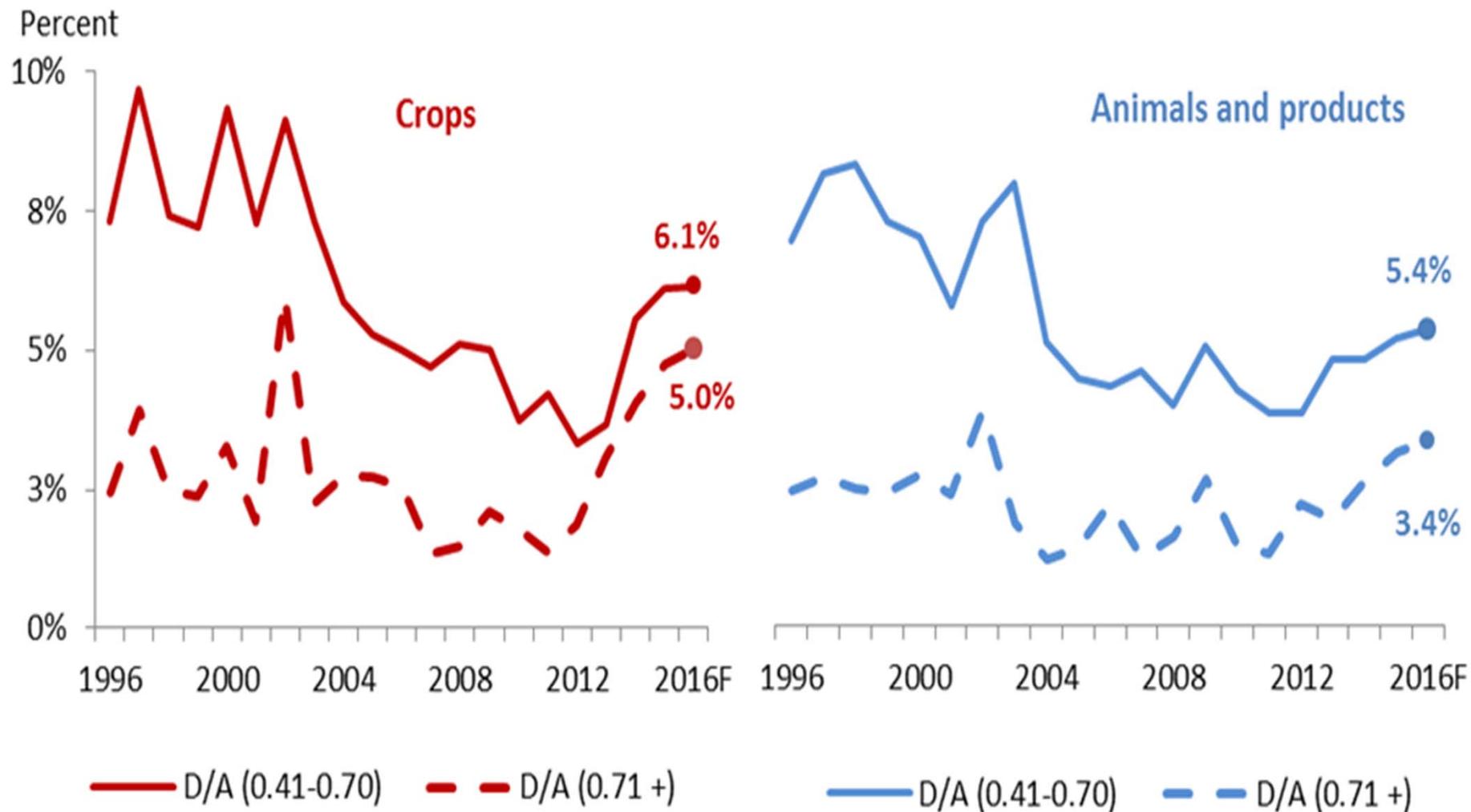
Farm business average net cash farm income by resource region, 2016F compared with 2015F



Note: F = forecast. The partial budget forecast model is based on the 2014 Agricultural Resource Management Survey (ARMS) using parameters from the sector forecasts. The model is static and does not account for changes in crop rotation, weather, and other location production impacts that occurred after the base year. Data as of February 9, 2016.
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.



Share of highly leveraged farm businesses forecast to increase in 2016



F = forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 9, 2016.



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.
 - Inflation-adjusted debt nearing historic highs, but remains below 1970s-1980s peak.
- Financial metrics indicate the farm sector remains in good standing.
 - An increasing but small group of farms is highly leveraged.

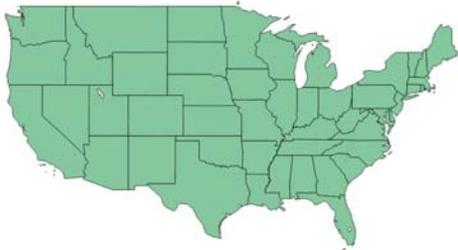


Additional analysis and data

Farm Sector Income and Wealth Statistics

Data product updated 3 times per year.

Next update: August 30th, 2016.



Historical State Estimates



Historical National Estimates



National Forecasts

<http://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics.aspx>



Economic Research Service
www.ers.usda.gov

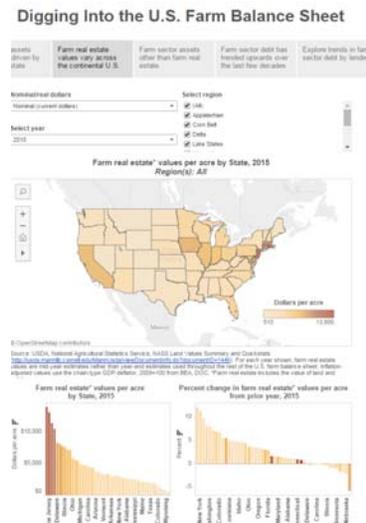


Explore the data

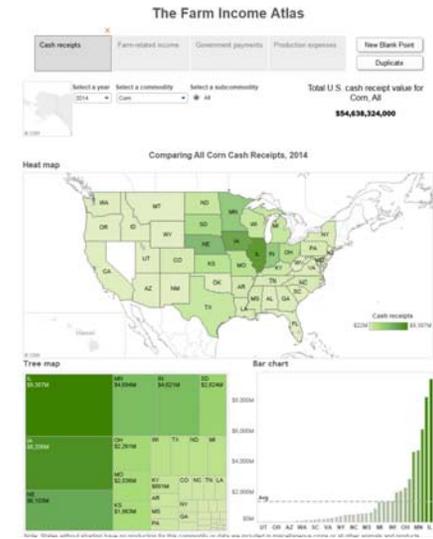
Visualizations let you dive into the financials of the farm sector



Get to Know Your State



Digging into the Farm Balance Sheet



Farm Income Atlas

<http://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics/data-files-us-and-state-level-farm-income-and-wealth-statistics.aspx>

QUESTIONS?

Ryan Kuhns

RNKuhns@ers.usda.gov

Kevin Patrick

KTPatrick@ers.usda.gov

Farm Income Team

farmincometeam@ers.usda.gov



Economic Research Service
www.ers.usda.gov

