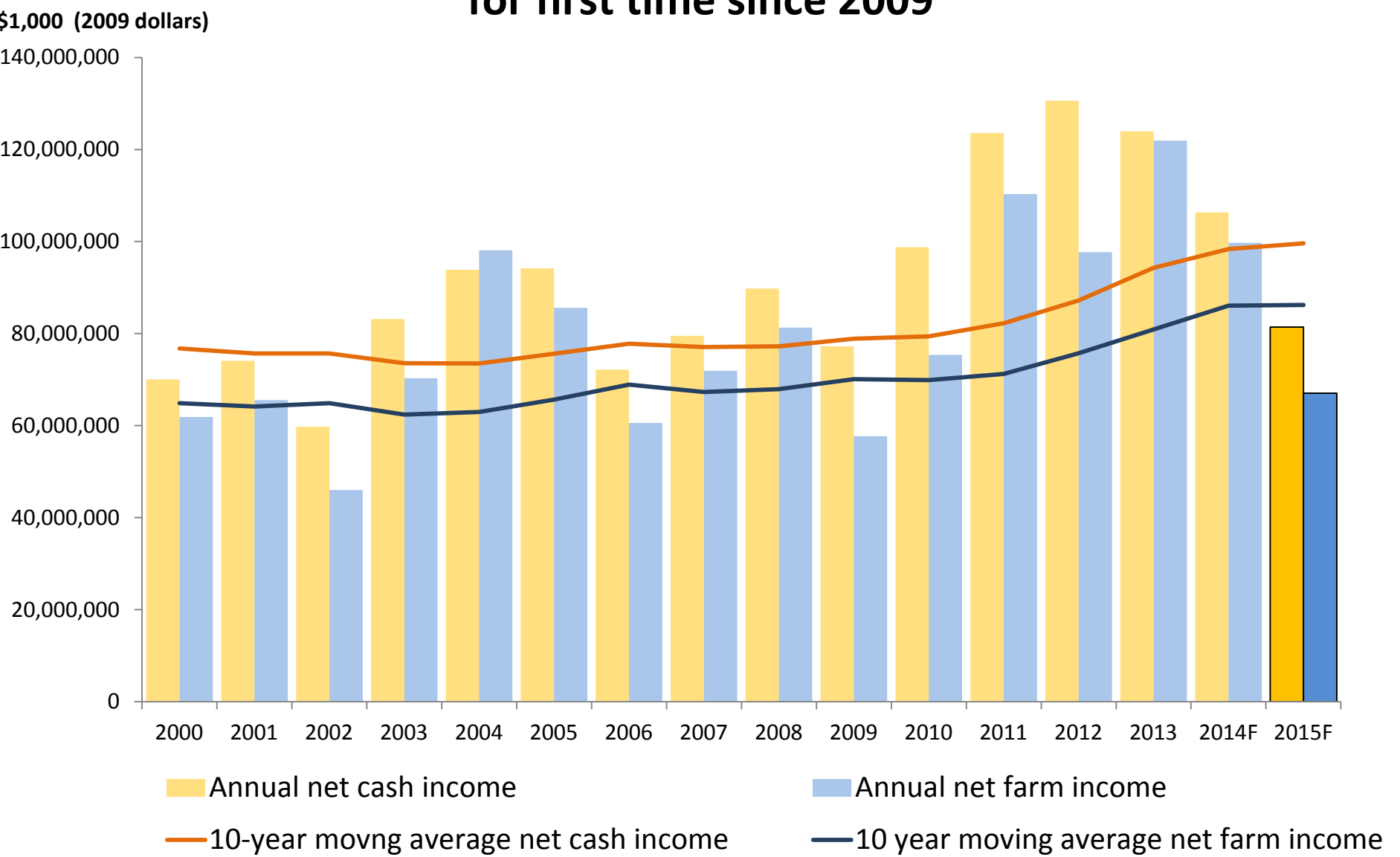


# **Farm Sector Income & Finances 2015 Outlook**



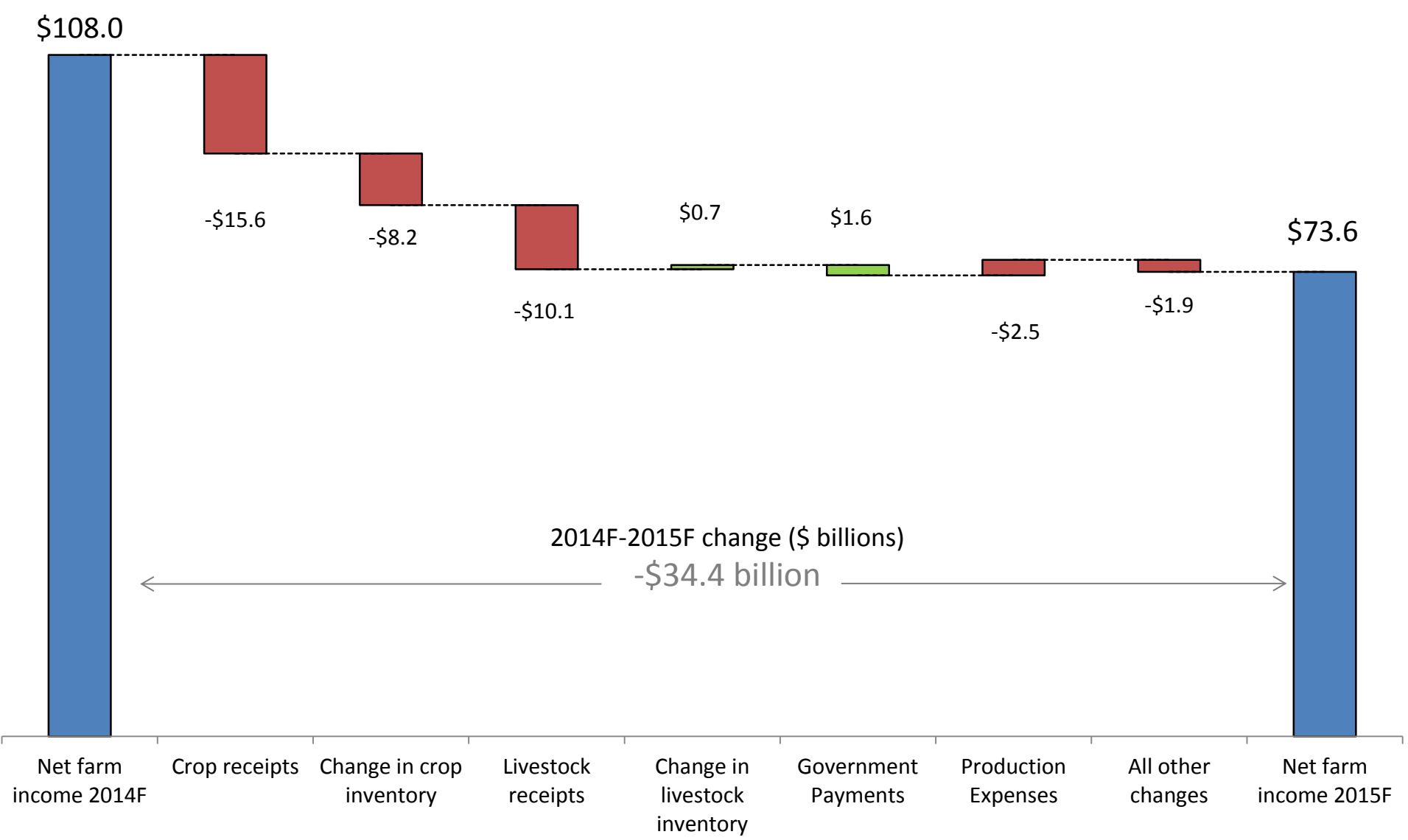
**By Ryan Kuhns and Kevin Patrick  
Economics Research Service, USDA**

# Net cash and net farm income forecast below 10-year moving average for first time since 2009



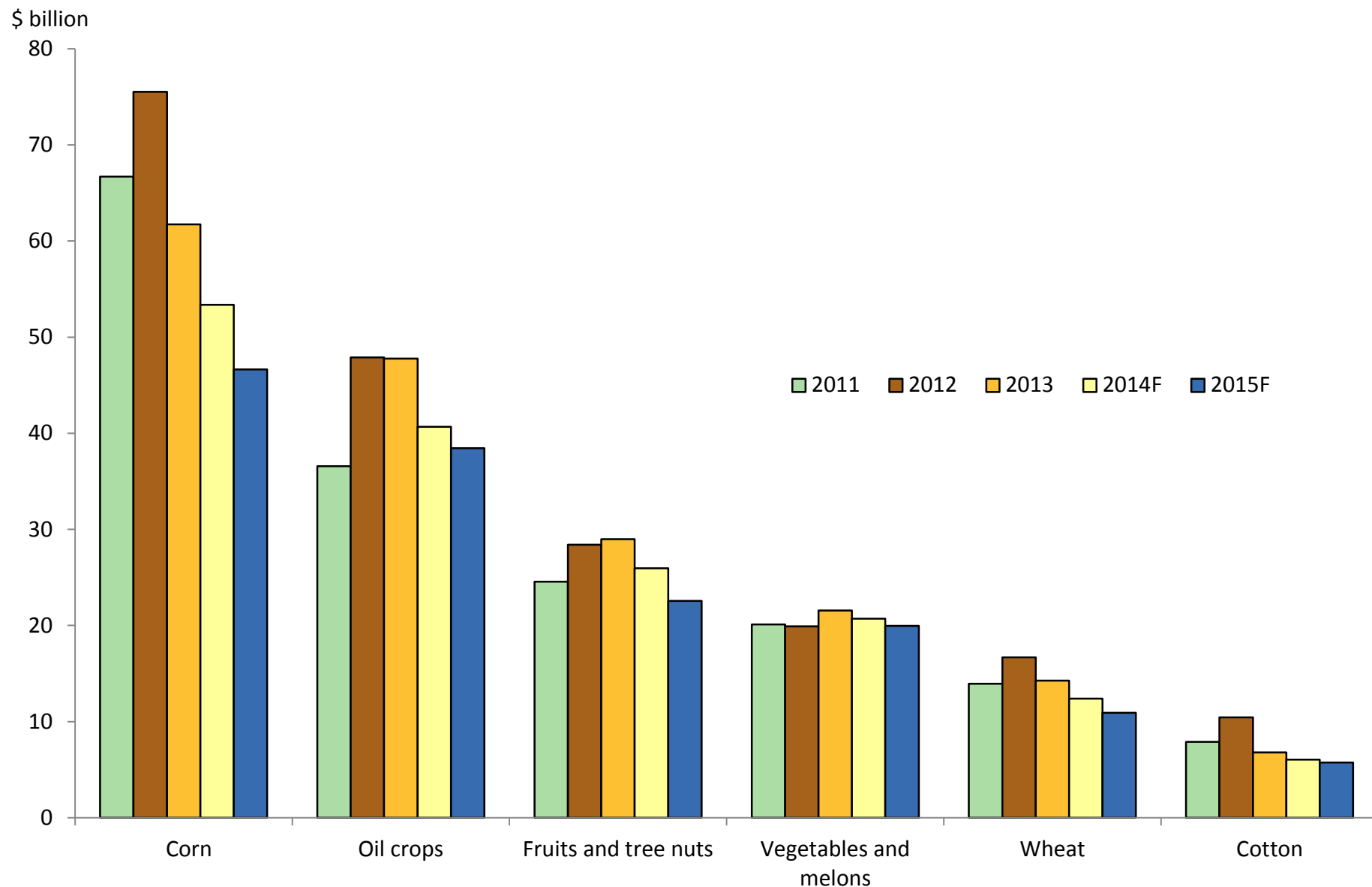
The GDP chain-type price index used to convert the current-dollar statistics to real (inflation adjusted) amounts (2009=100)  
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.

# Crop and livestock receipt forecasts driving major changes to net farm income from 2014F to 2015F



Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.

# Crop receipts are expected to fall for all major crops in 2015

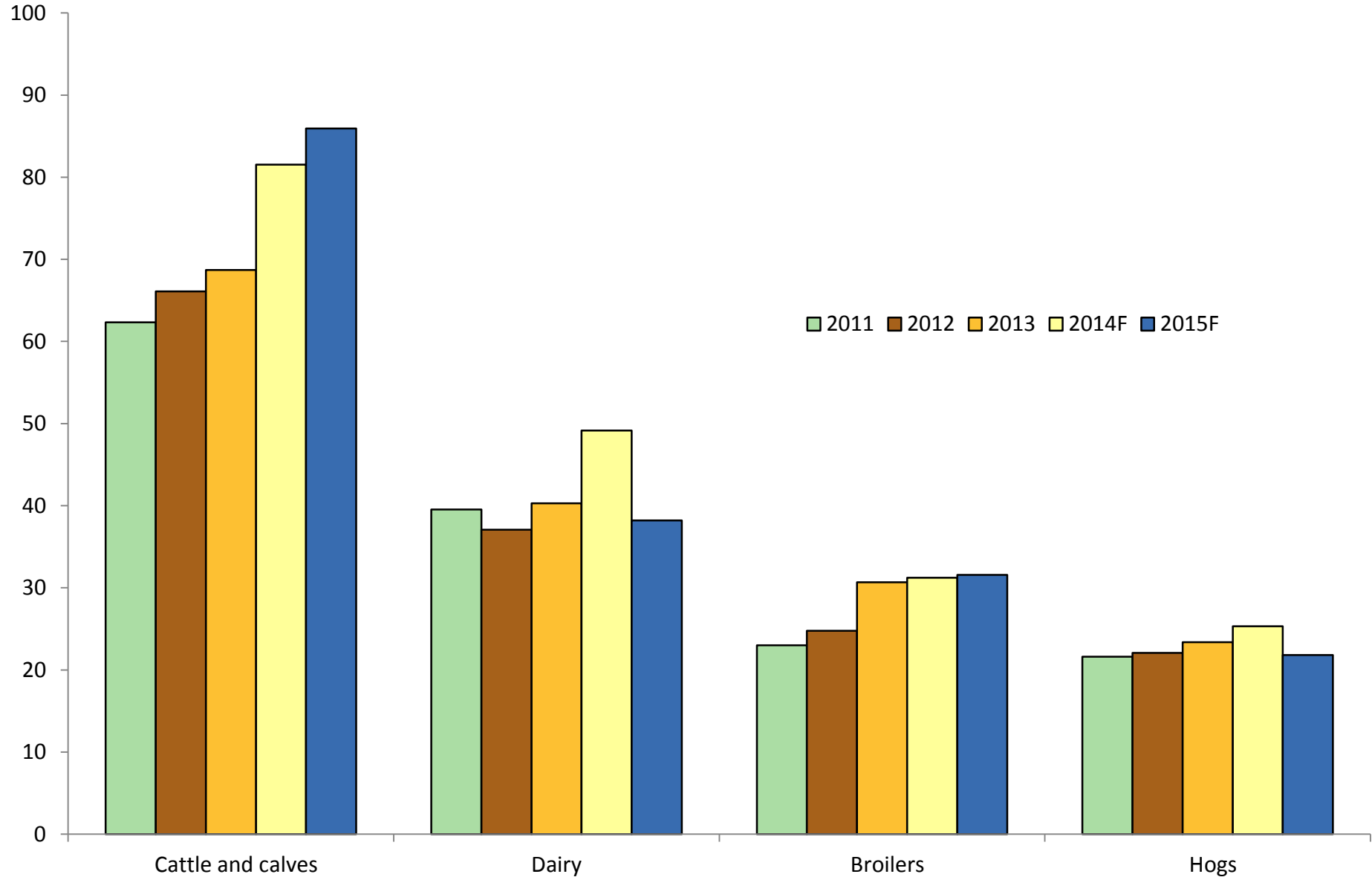


F=Forecast

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.

# Total livestock and products receipts are forecast down 5 percent in 2015

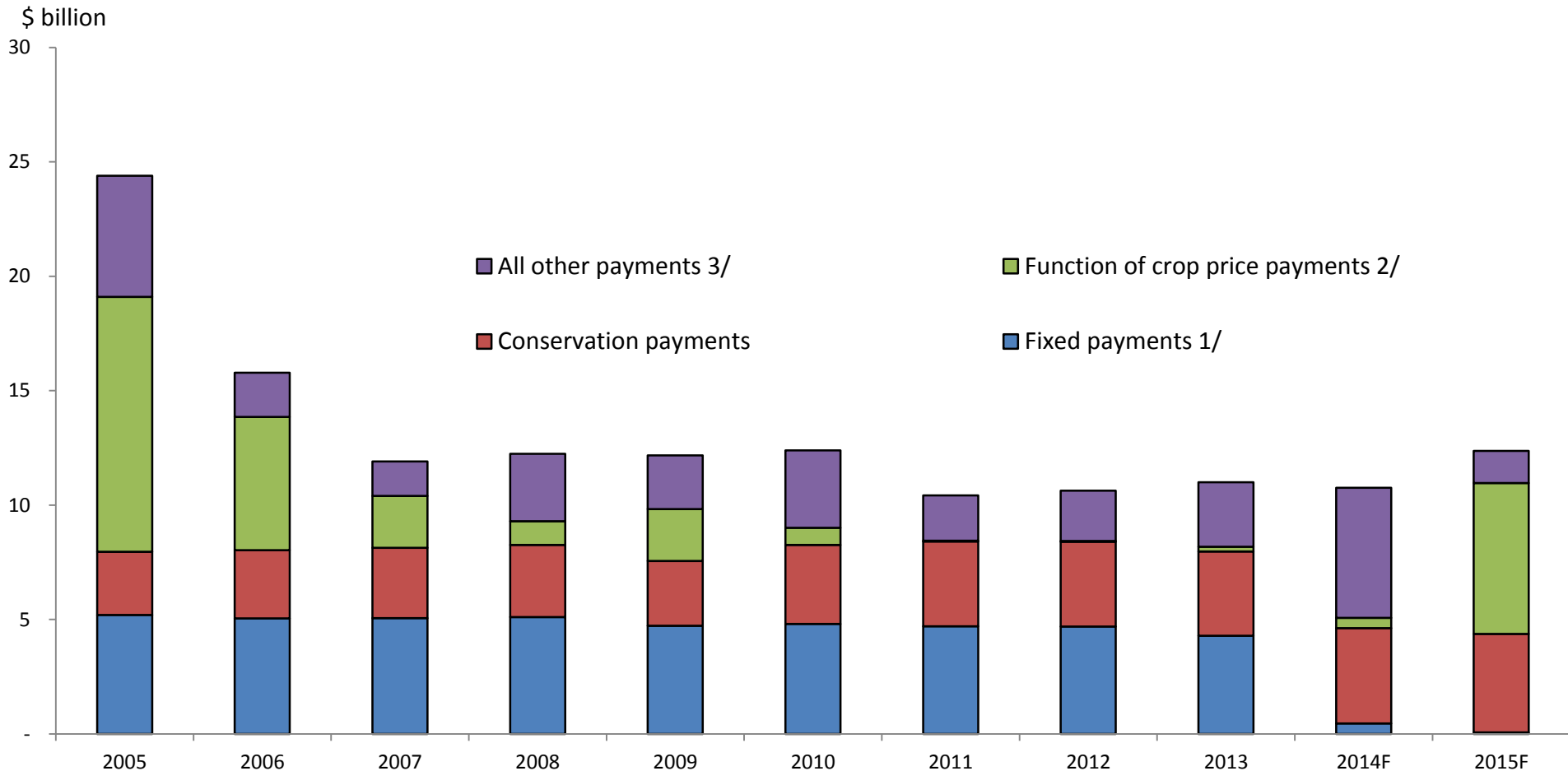
\$ billion



F=Forecast

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.

# Government payments to farm producers, 2005-2015F



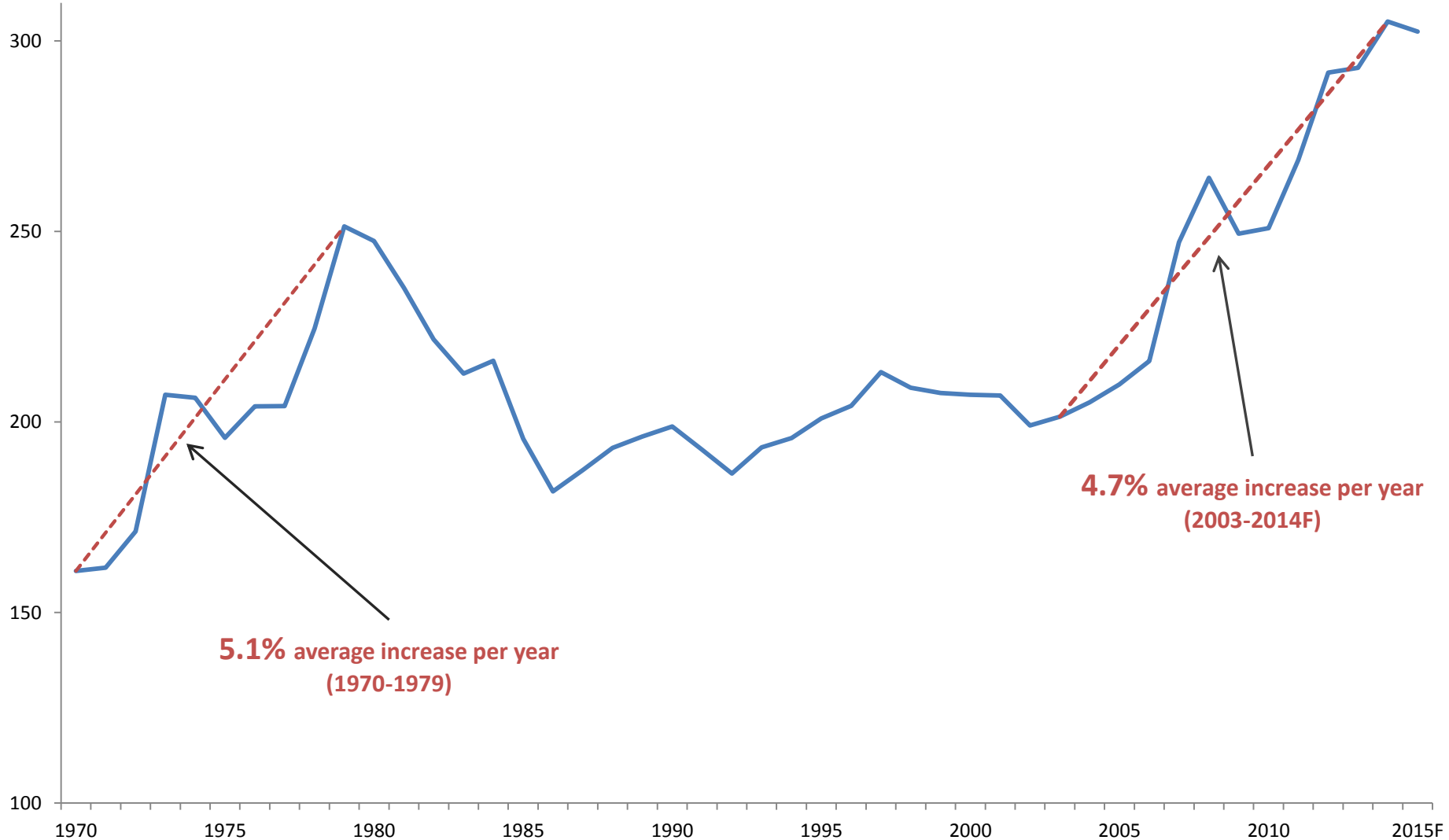
- 1/ Includes direct payments (through 2013), cotton transition payments (2013-2014). Payment rates are fixed by legislation.
- 2/ Includes counter-cyclical payments, average crop revenue election (ACRE) payments, loan deficiency payments, marketing loan gains, certificate exchange gains (ended after making payments for 2009 crop year), Price Loss Coverage (PLC), and Agricultural Risk Coverage (ARC).
- 3/ All other payments include disaster relief payments, tobacco transition payments, and dairy program payments.

F=Forecast

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics using FSA, NRCS and CCC input data. Data as of February 10, 2015.

# Real cash expenses expected to decline for the first time since 2009

Billions (2009 dollars)

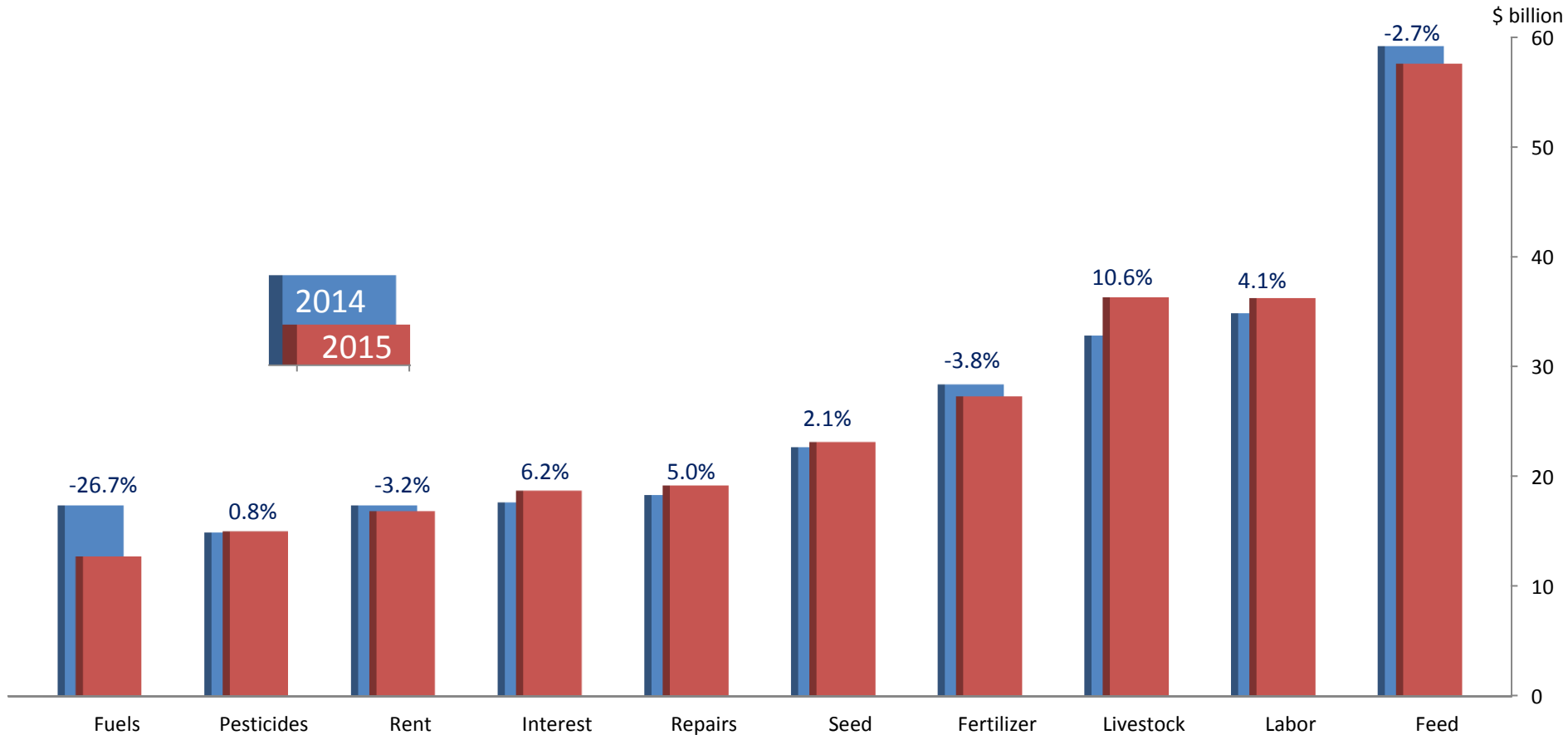


F=Forecast

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

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.

# Despite lower fuel costs, production expenses forecast to rise 2.5 billion

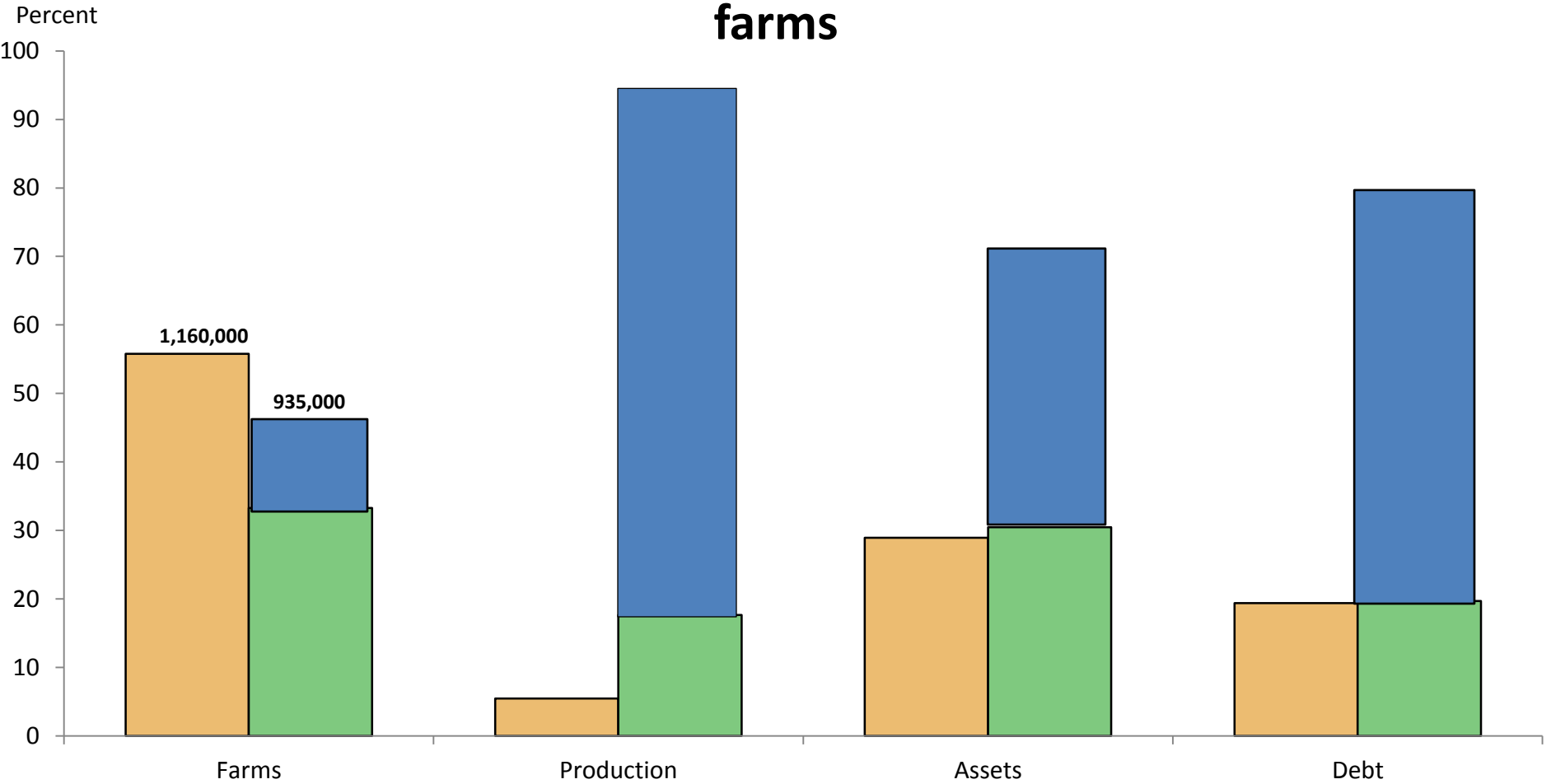


F=Forecast

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.



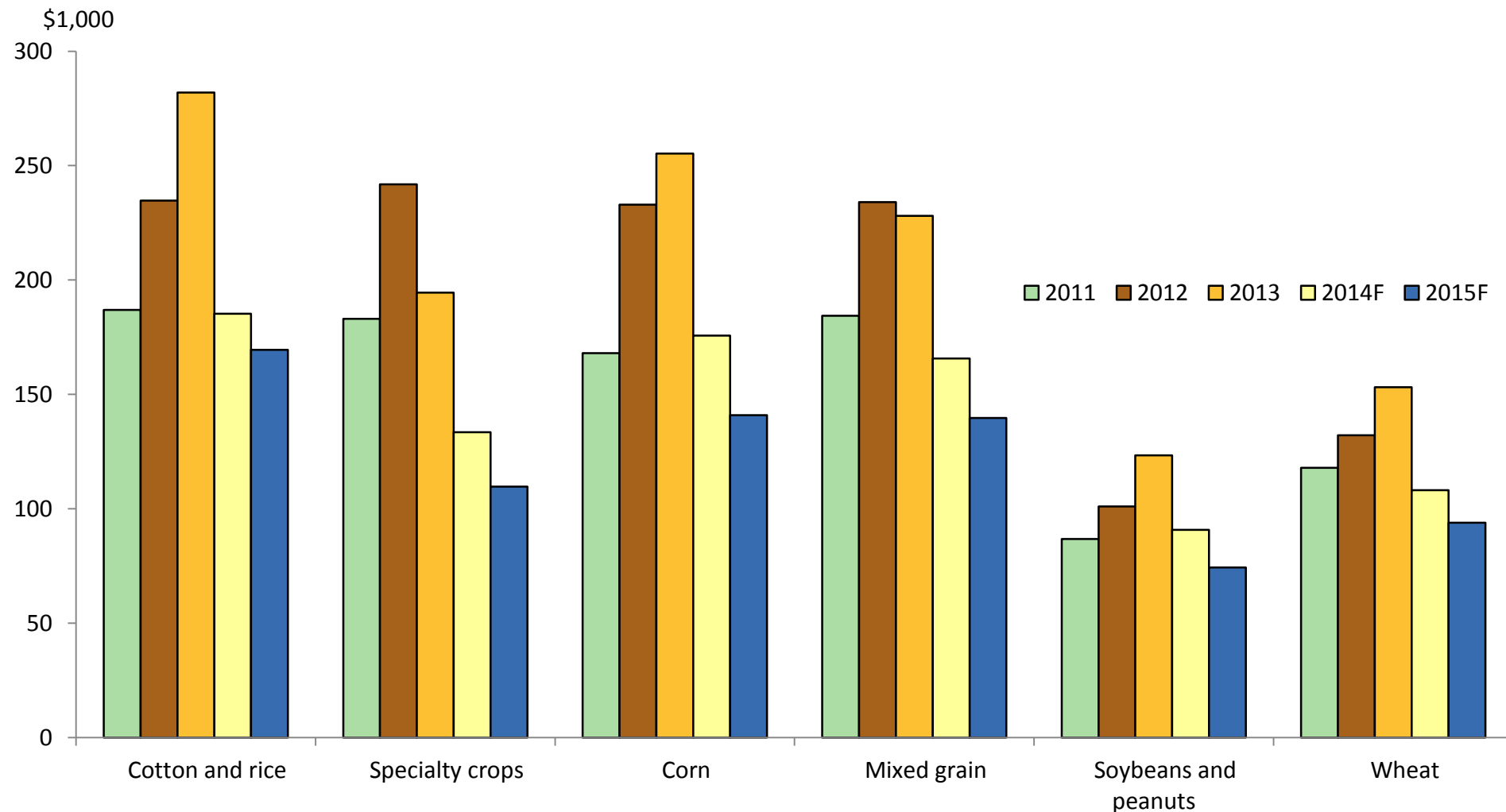
# Farm Businesses Account for over 90% of farm production and 930,000 farms



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.

Source: 2013 Agricultural Resource Management Survey (ARMS)

# Average net cash income forecast lower for farm businesses<sup>1</sup> specializing in crop production

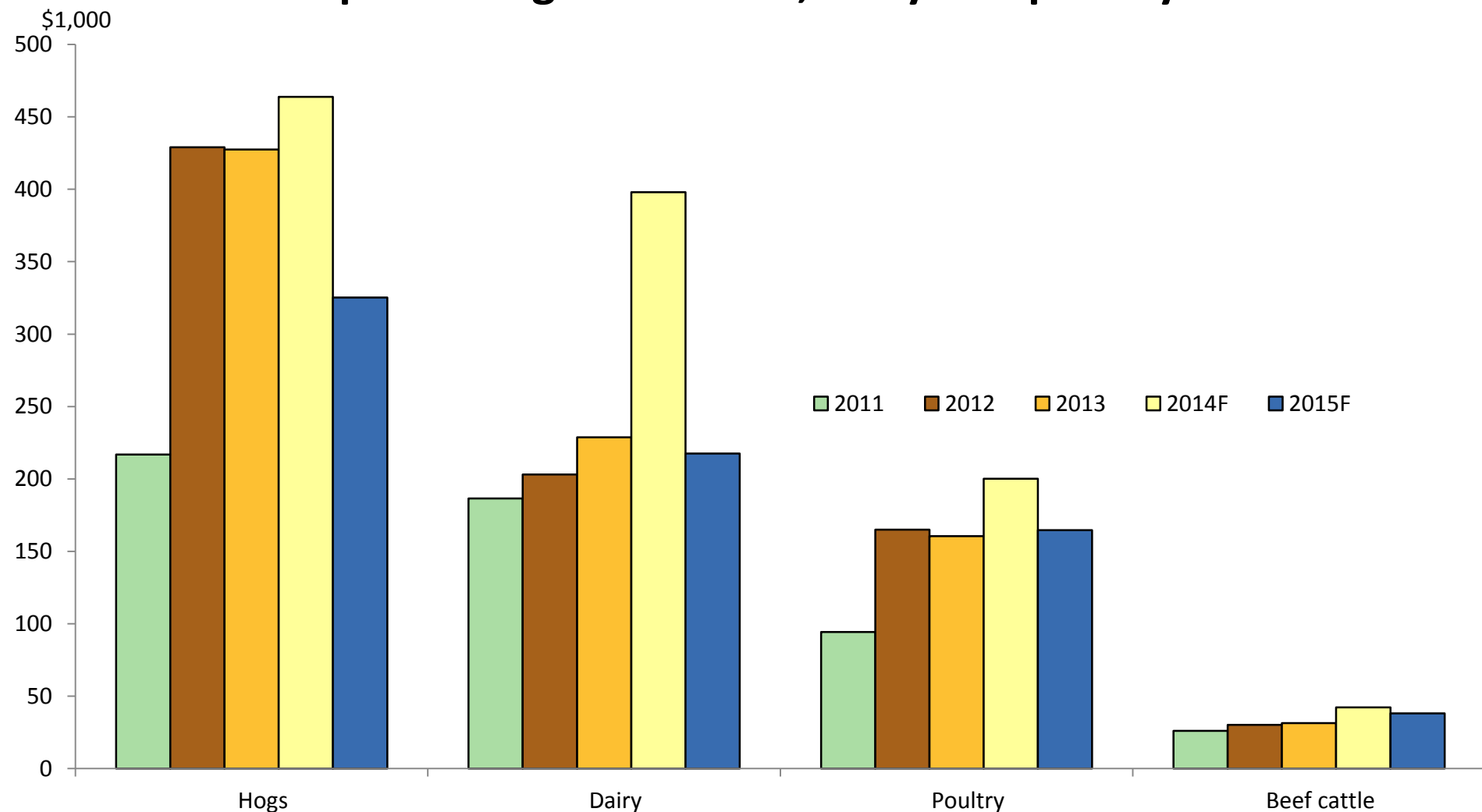


<sup>1</sup> Farm level forecasts derived from partial budget modeling on the 2013 Agricultural Resource Management Survey (ARMS) using the sector forecasts. The model is static and therefore does not account for changes in crop rotation, weather, and other local production impacts that occurred after the base year.

F = forecast

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.

# Average net cash income also forecast to fall for farm businesses<sup>1</sup> specializing in livestock, dairy and poultry

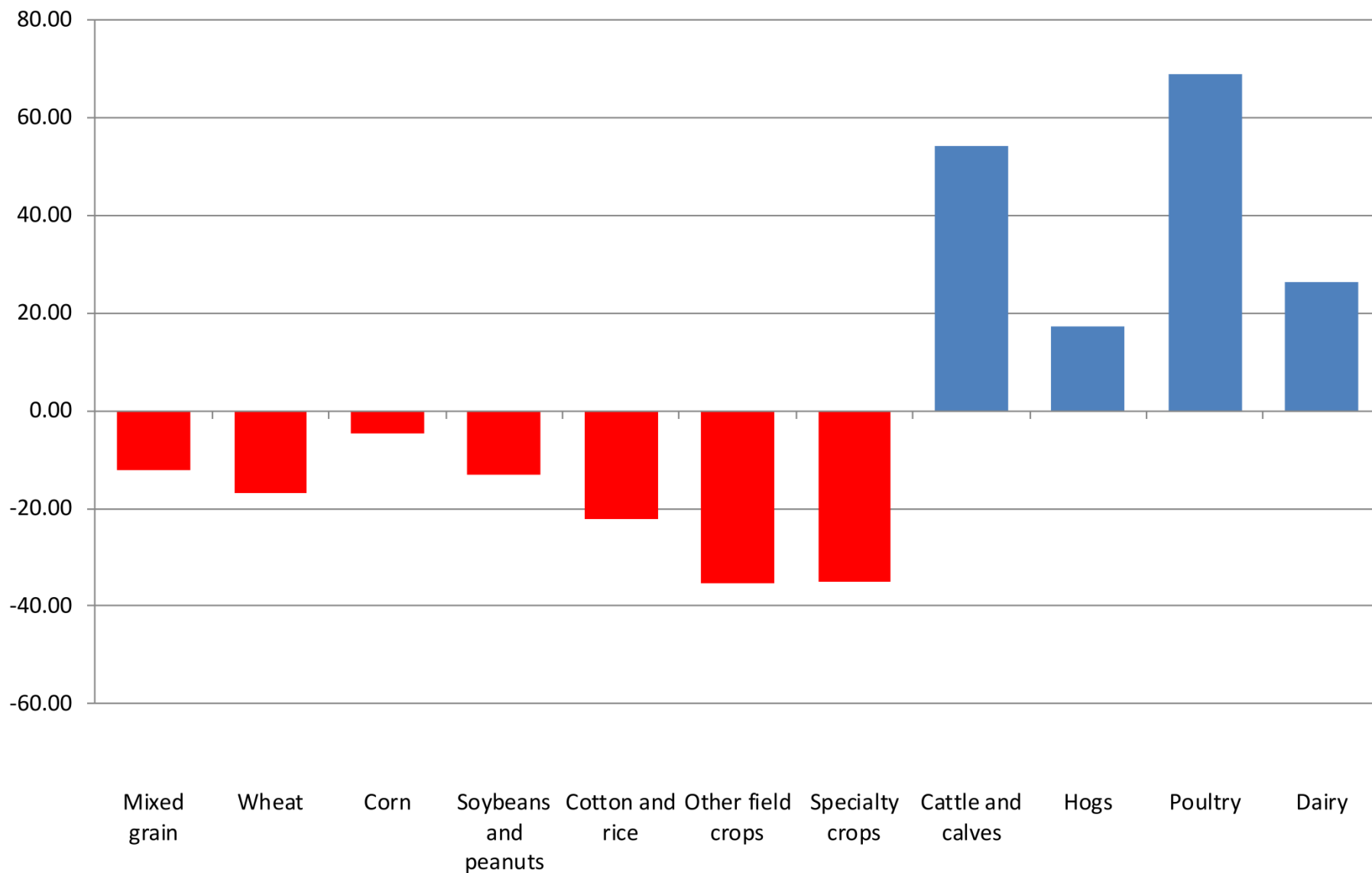


<sup>1</sup> Farm level forecasts derived from partial budget modeling on the 2013 Agricultural Resource Management Survey (ARMS) using the sector forecasts. The model is static and therefore does not account for changes in crop rotation, weather, and other local production impacts that occurred after the base year.

F = forecast

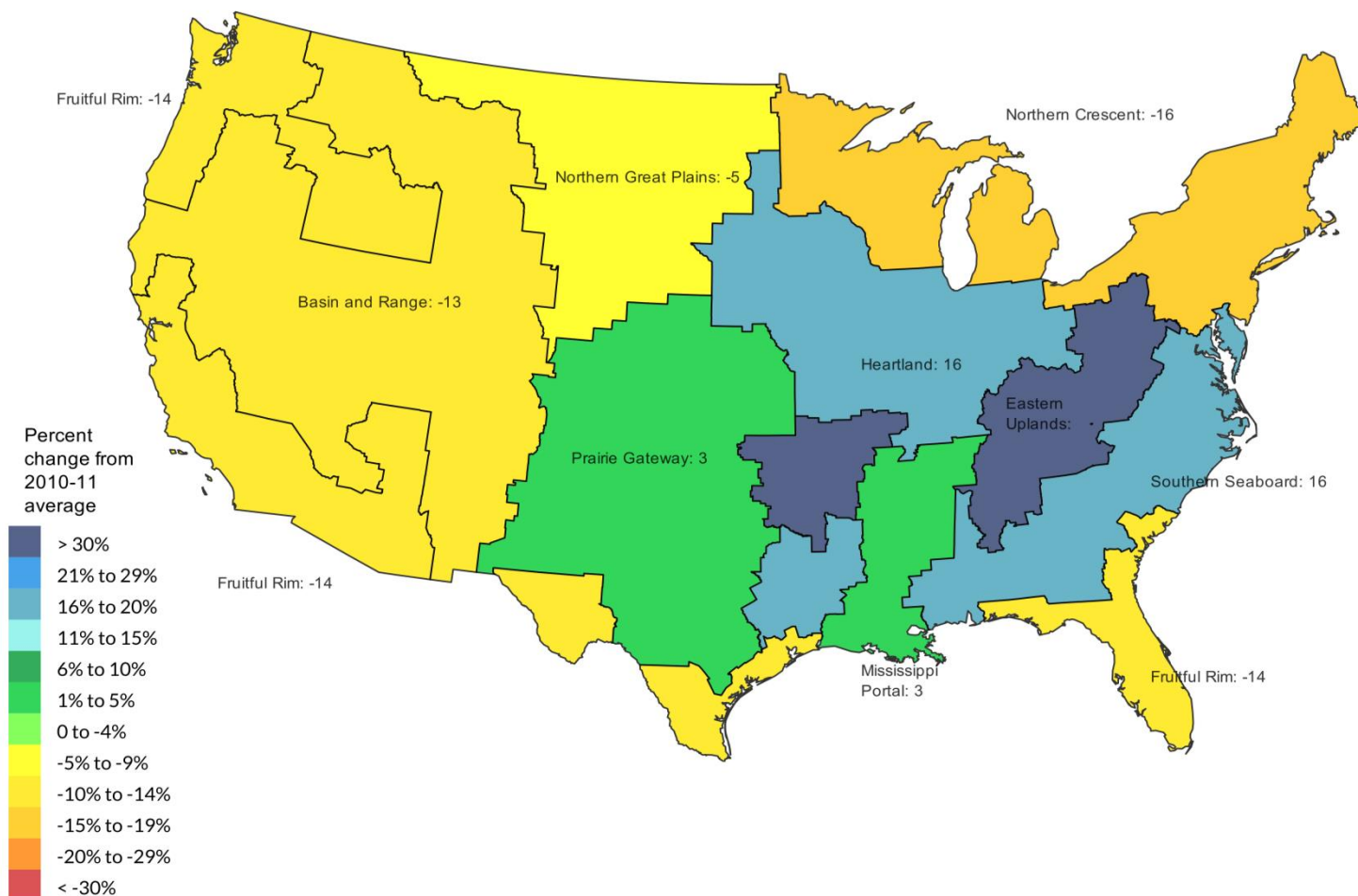
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.

## 2015 average farm business net cash income forecast compared with 2010-11 average



Note: Commodity specialization is determined by the crop or livestock item that accounts for 50 percent or more of the total value of farm production.

# 2015 average farm business net cash income forecast compared with 2010-11 average



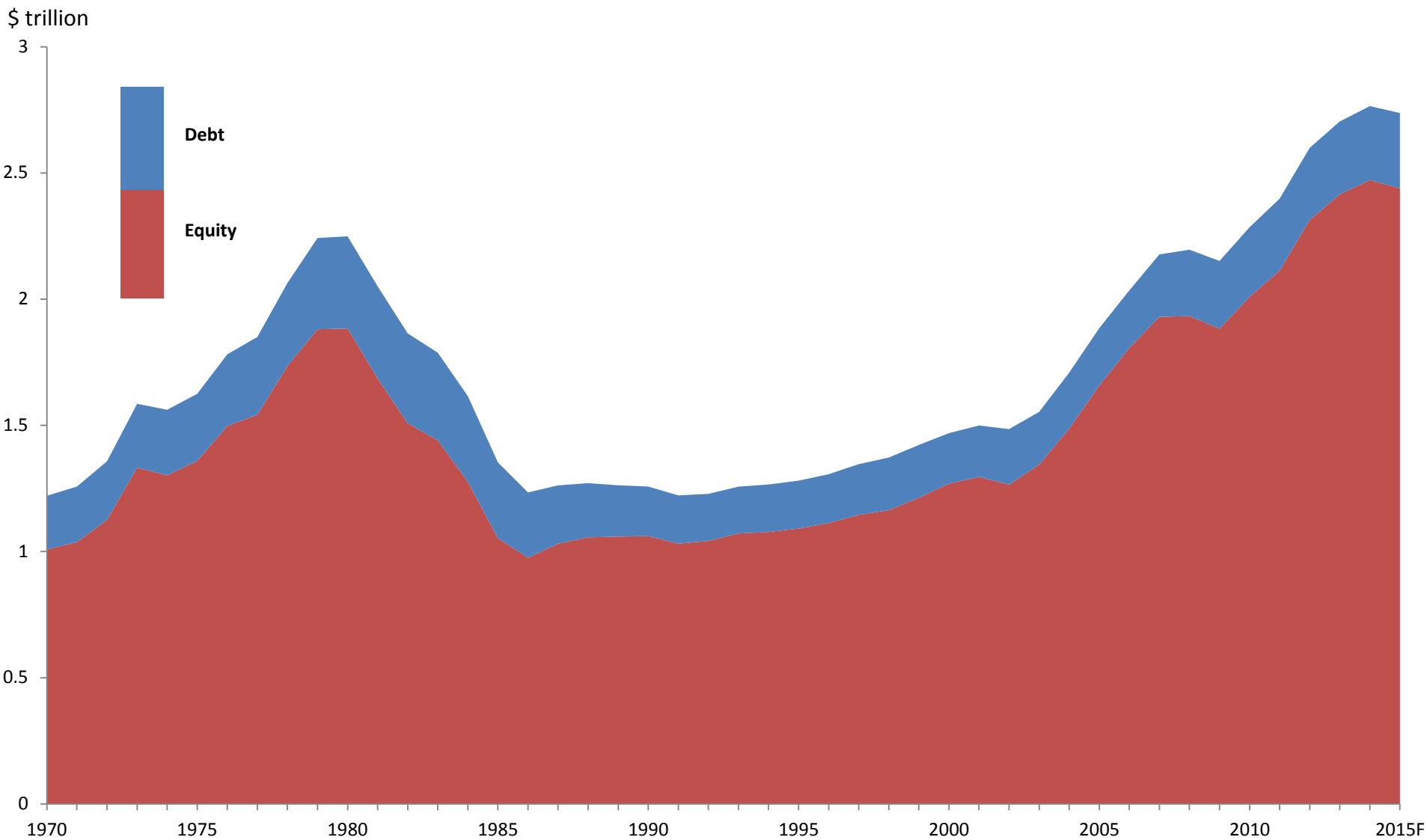
Note: The farm level forecasts are derived from partial budget modeling based on the 2013 ARMS using parameters from the sector forecasts. The model is static and therefore does not account for changes in crop rotation, weather, and other local production impacts that occurred after the base year. Farm businesses are defined as commercial (gross cash farm income greater than \$350,000) and intermediate (primary occupation of farming and gross cash farm income below \$350,000) farms; including non-family farms.





**Farm Balance Sheet Outlook**

# First expected decline in real<sup>1</sup> asset and equity values since 2009



F=Forecast

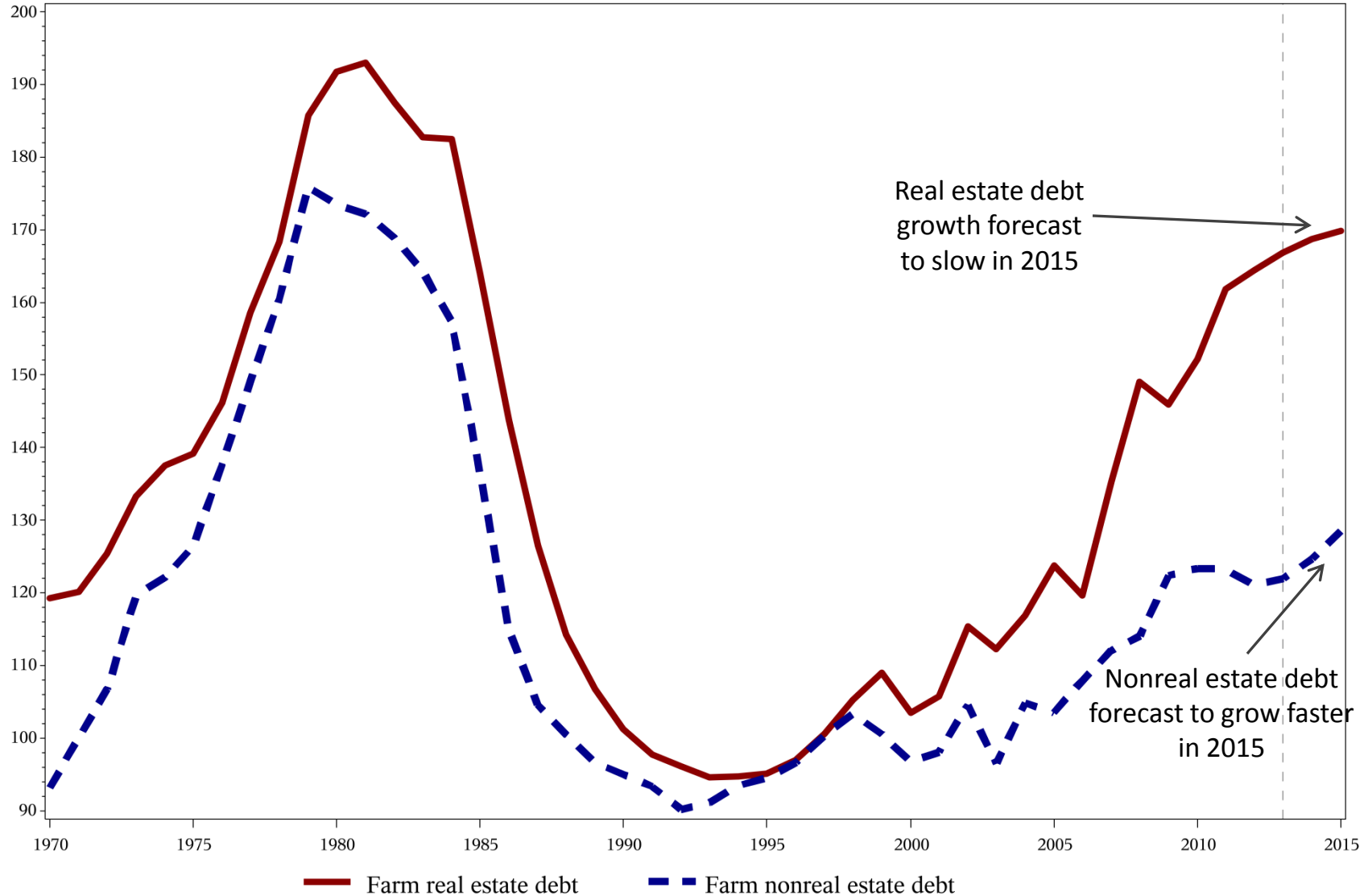
<sup>1</sup>The GDP chain-type price index is used to convert current-dollar amounts to real (inflation adjusted) amounts (2009 = 100).

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.



# Inflation adjusted debt is expected to grow but remains below 1980s peak

2009 \$ Billions



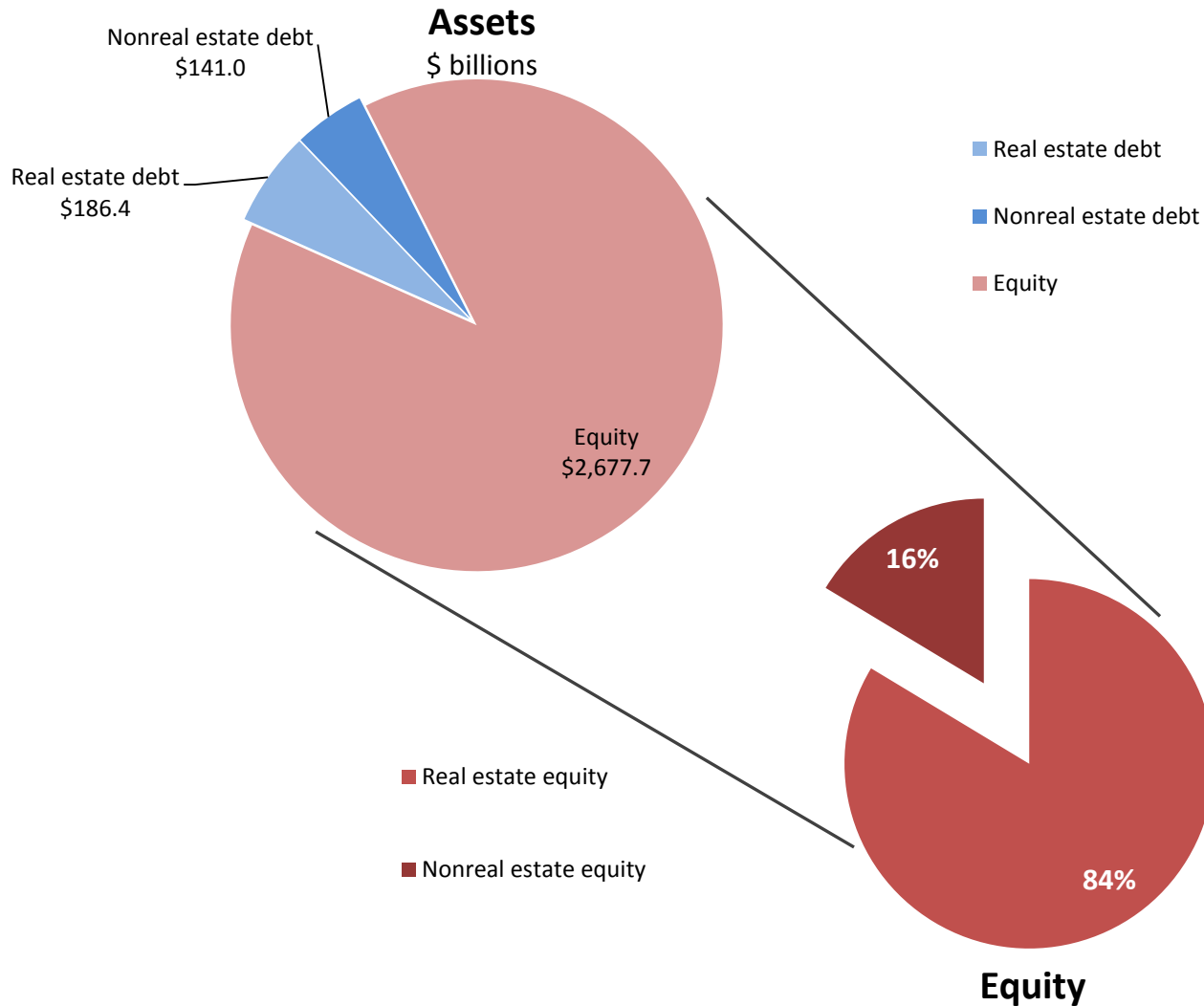
2014 and 2015 data are forecasts

Note: Adjusted for inflation using the BEA chain-type implicit GDP deflator.

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

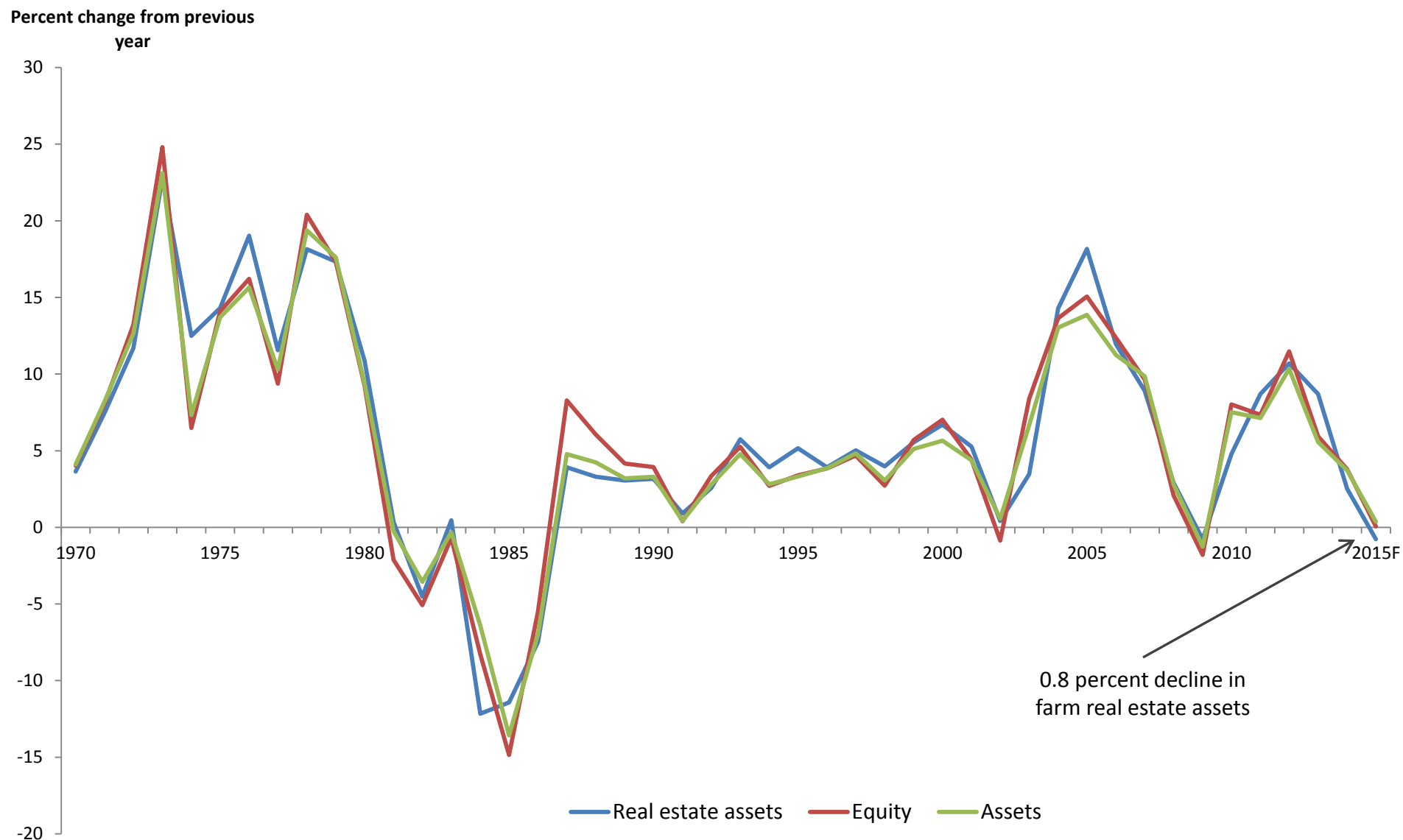


# Farm real estate accounts for the majority of the sector's assets and equity



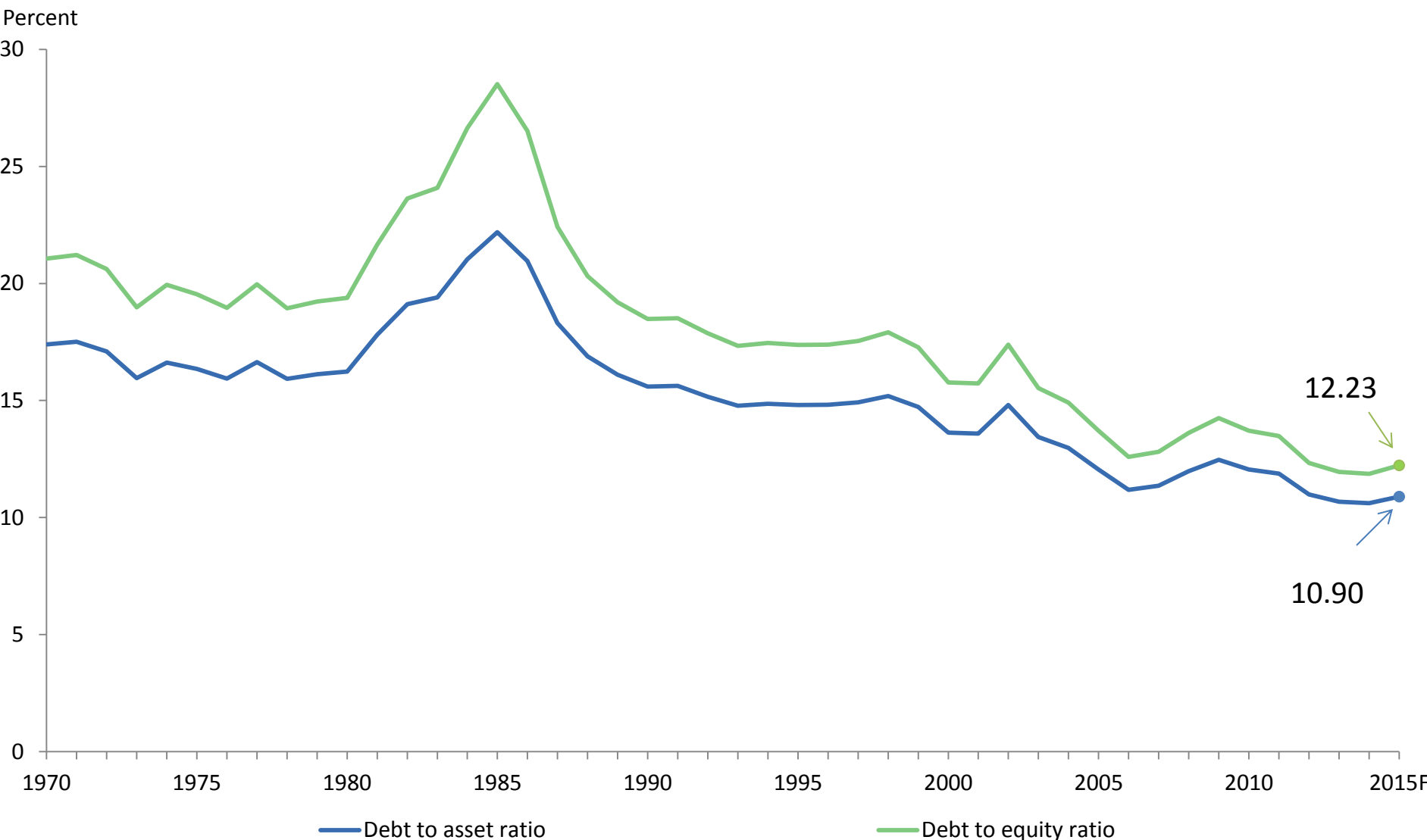
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.

# An expected small decline in farm real estate values leads to slower asset and equity growth



Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.

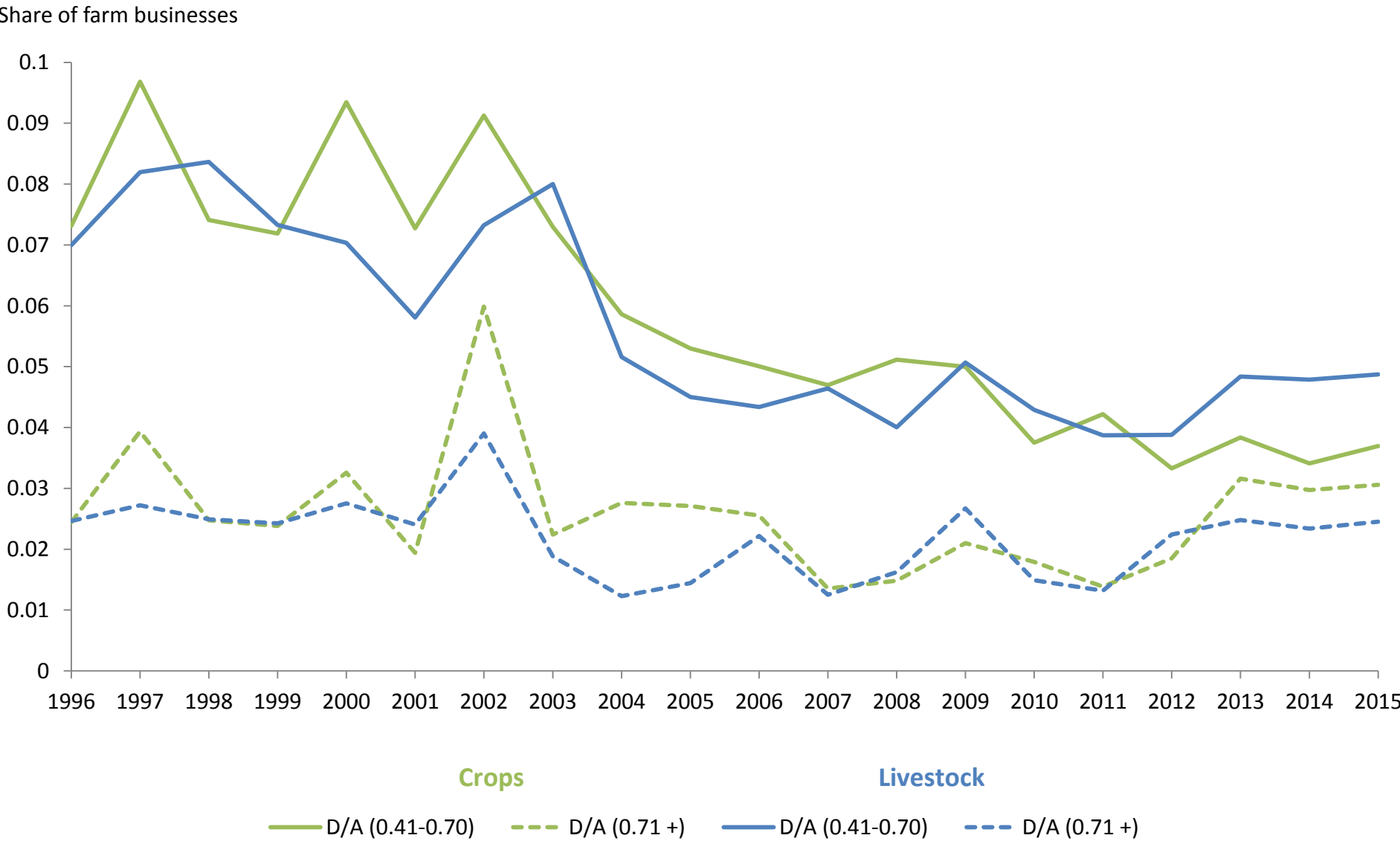
# Sector leverage remains historically low despite debt being forecast to grow faster than assets in 2015



F = forecast

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.

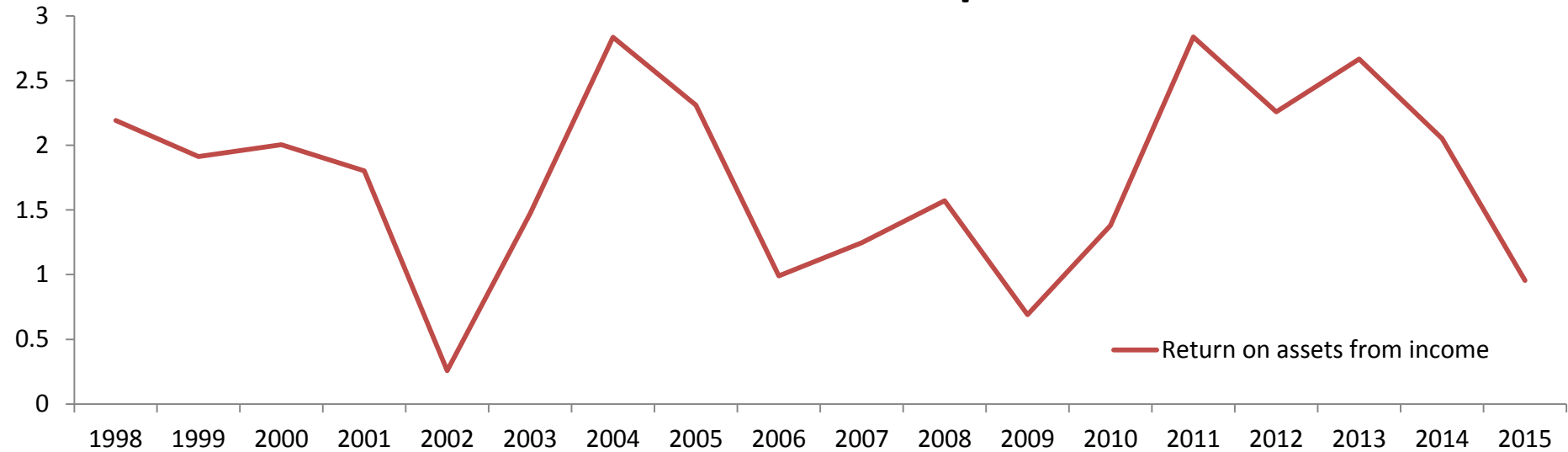
# Share of highly leveraged farm businesses forecast to increase in 2015F



F = forecast

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.

## The rate of return on farm assets expected to fall in 2015



- 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

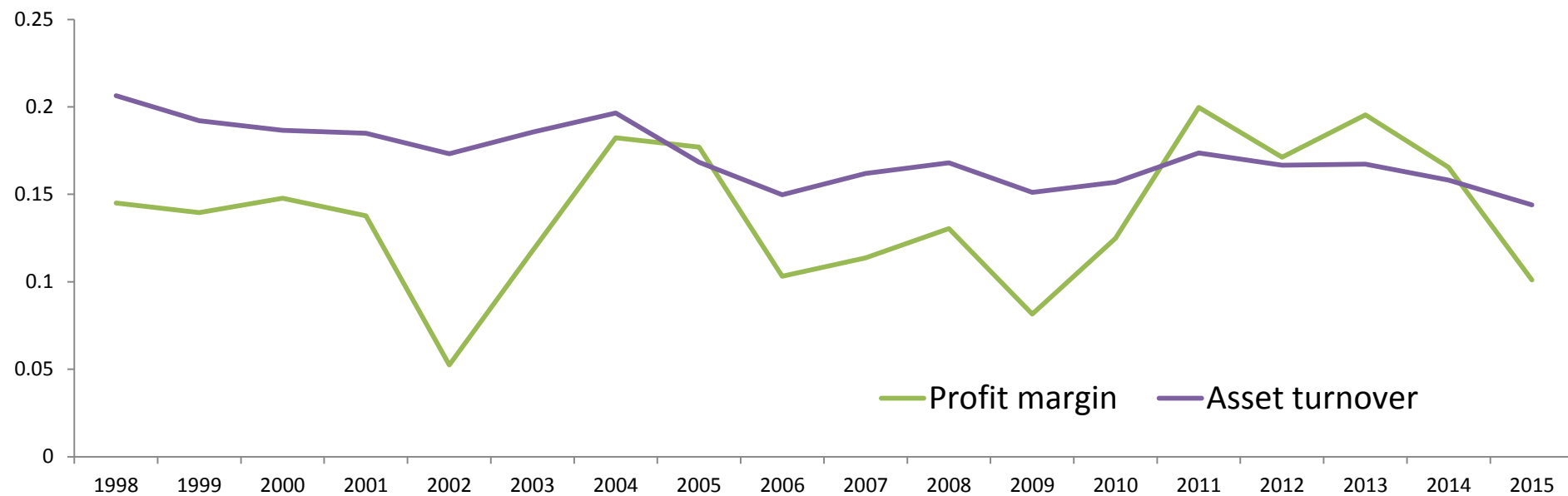
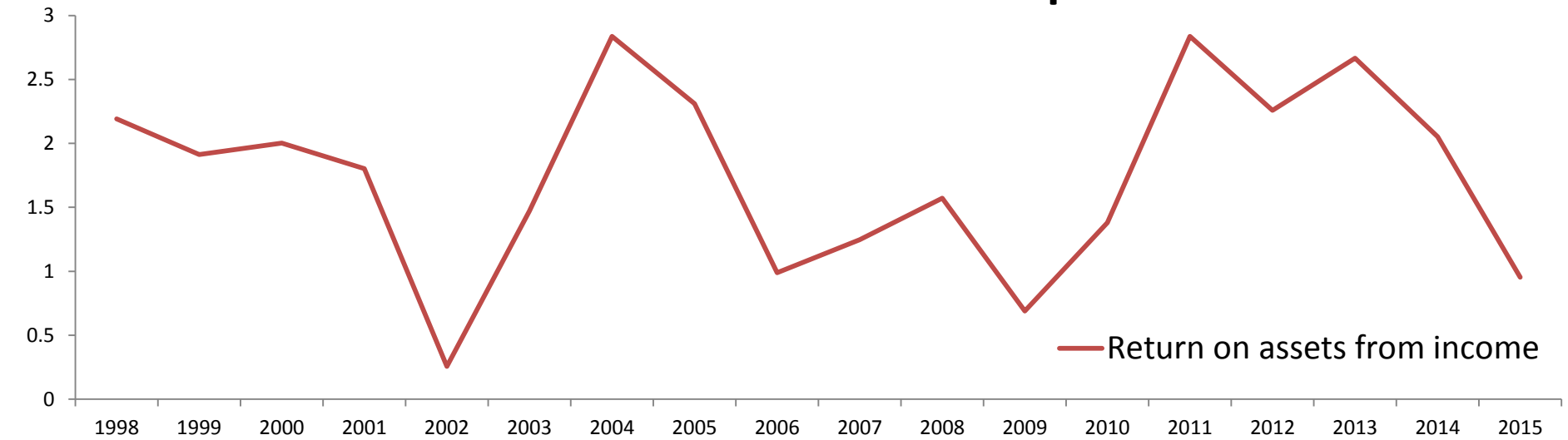
F = forecast

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.

Sector financial ratio documentation:

<http://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics/documentation-for-the-farm-sector-financial-ratios.aspx>

# The rate of return on farm assets expected to fall



F = forecast

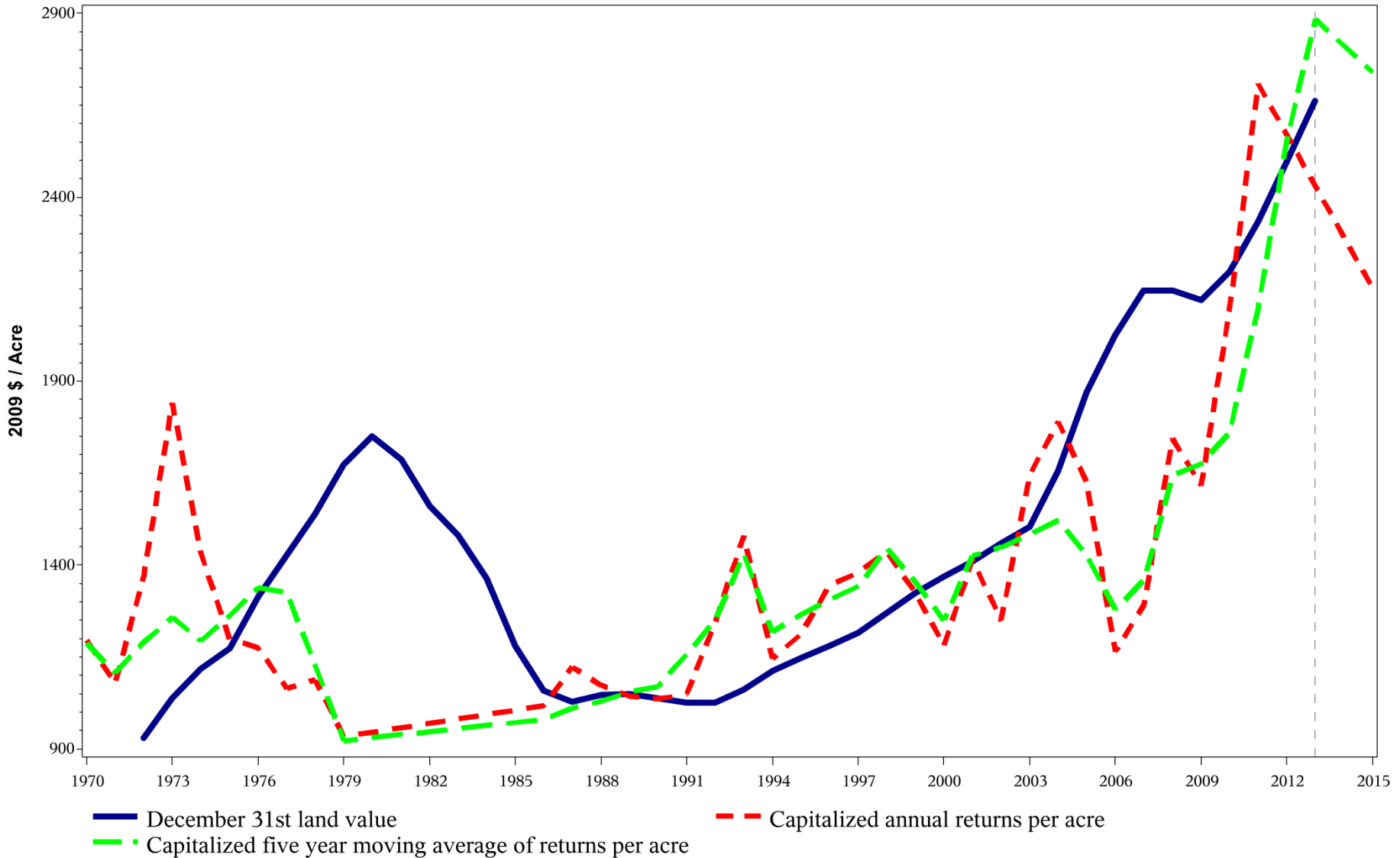
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 10, 2015.



# Farm Real Estate Outlook



# National December 31st land values and capitalized returns





## Increases in December 31<sup>st</sup> farm real estate values were greatest in corn producing regions from 2012 to 2013

Percentage Change

-4.51 29.67

State	Percentage Change
Washington	5.56
Oregon	2.29
Idaho	5.44
Montana	5.05
Wyoming	3.36
Utah	1.92
Arizona	2.78
California	3.05
Nevada	2.54
Colorado	1.96
New Mexico	7.35
Texas	4.75
Oklahoma	7.45
Kansas	18.55
Nebraska	22.54
South Dakota	24.79
North Dakota	24.35
Minnesota	12.56
Wisconsin	2.75
Illinois	14.74
Indiana	12.19
Michigan	9.35
Ohio	10.68
Pennsylvania	3.47
Delaware	1.99
Maryland	0.44
Virginia	-0.46
West Virginia	-0.59
Kentucky	4.83
Tennessee	0.85
Alabama	1.57
Georgia	3.38
Florida	0.87
South Carolina	-4.51
North Carolina	2.08
Virginia	0.00
West Virginia	0.44
Maryland	-0.46
Delaware	1.99
Pennsylvania	3.47
New Jersey	-2.19
New York	-2.35
Connecticut	-1.83
Massachusetts	0.24

Charts and Maps of U.S. Farm Balance Sheet Data: <http://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics/charts-and-maps-of-us-farm-balance-sheet-data.aspx>

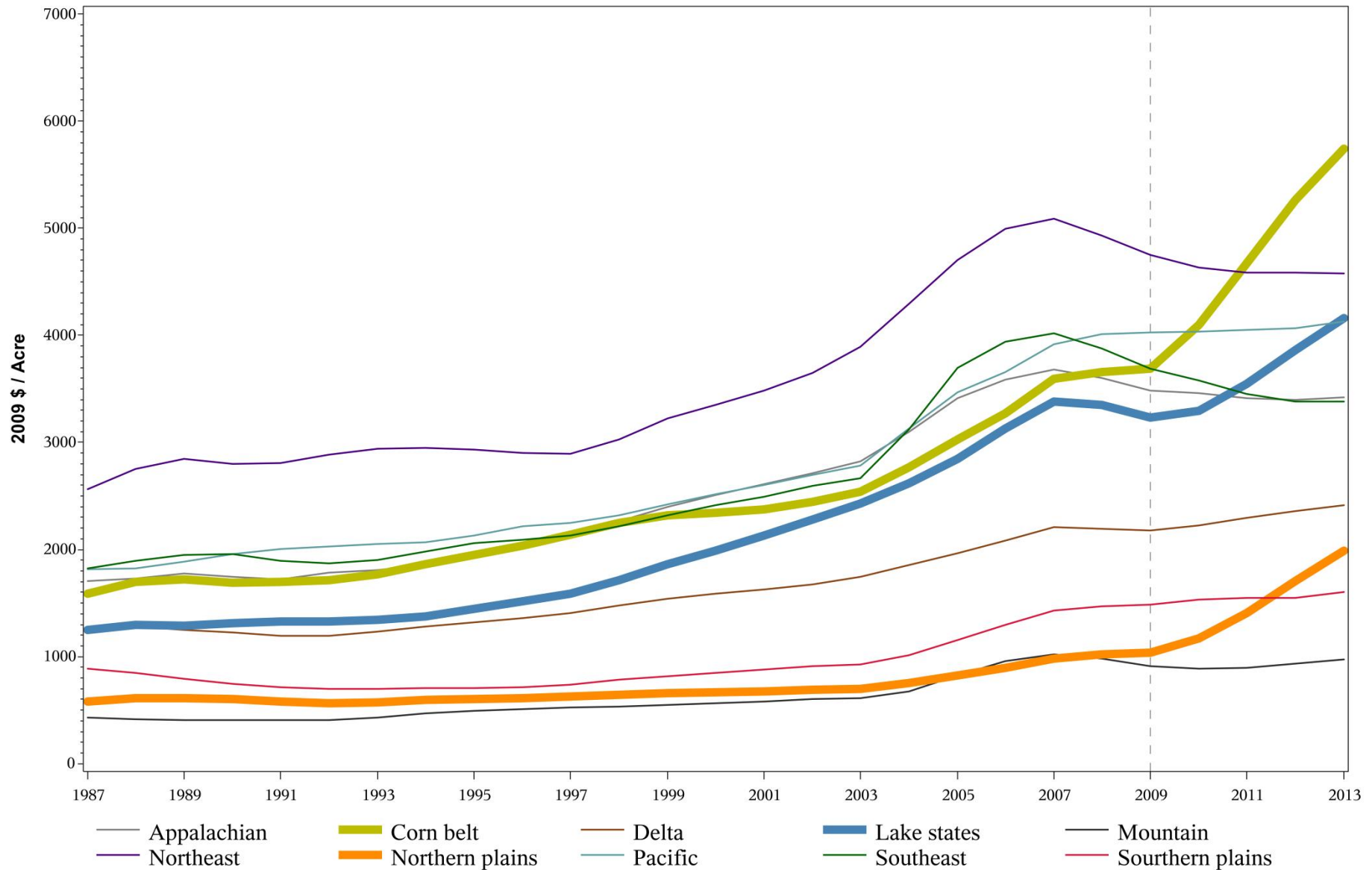
**Percentage Change**



-4.51 29.67

Charts and Maps of U.S. Farm Balance Sheet Data: <http://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics/charts-and-maps-of-us-farm-balance-sheet-data.aspx>

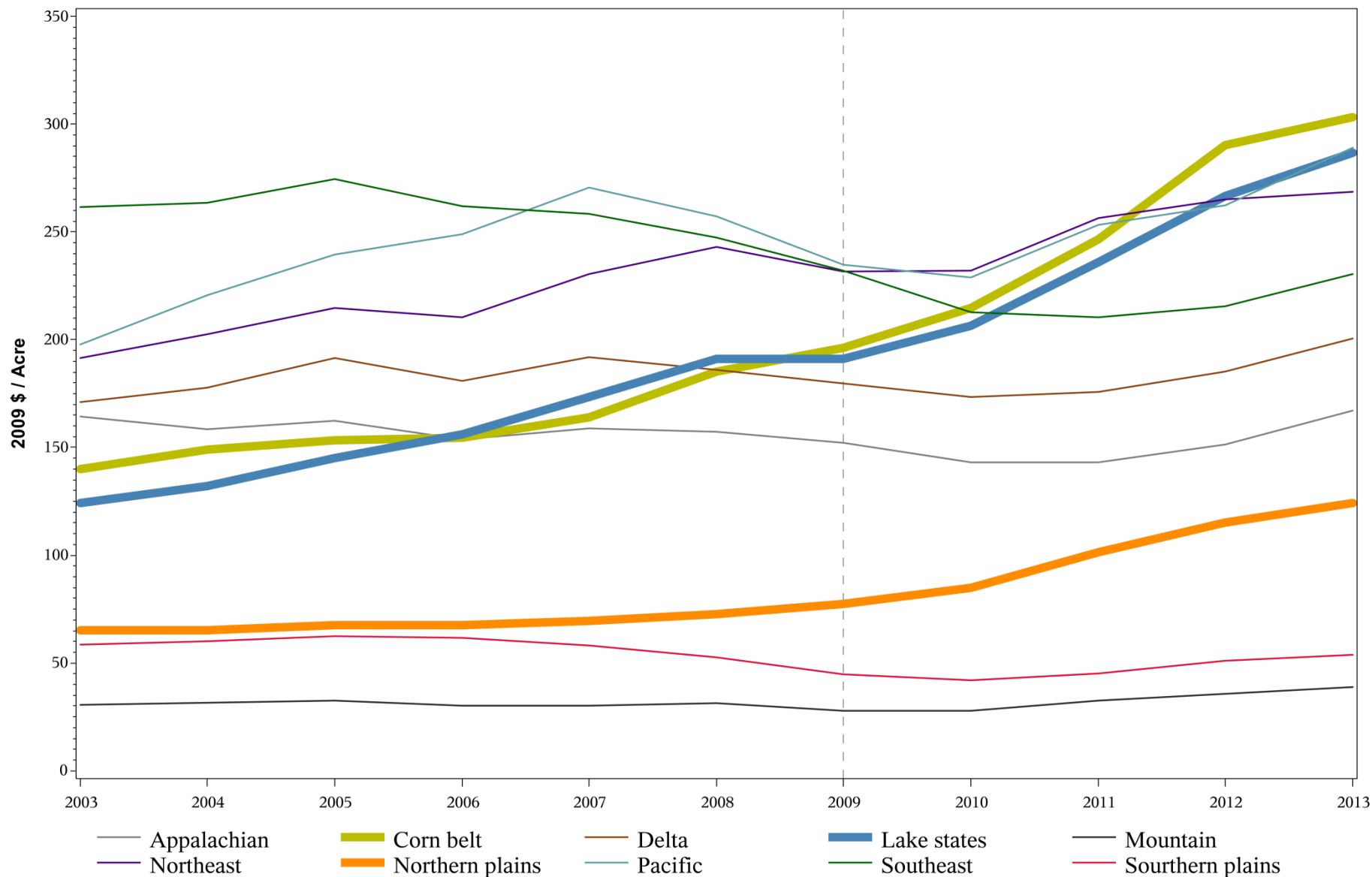
# December 31st farm real estate values have grown unevenly across regions since 2009



Note: Farm real estate includes land and buildings.

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

# Returns to farm real estate have also grown unevenly across regions since 2009

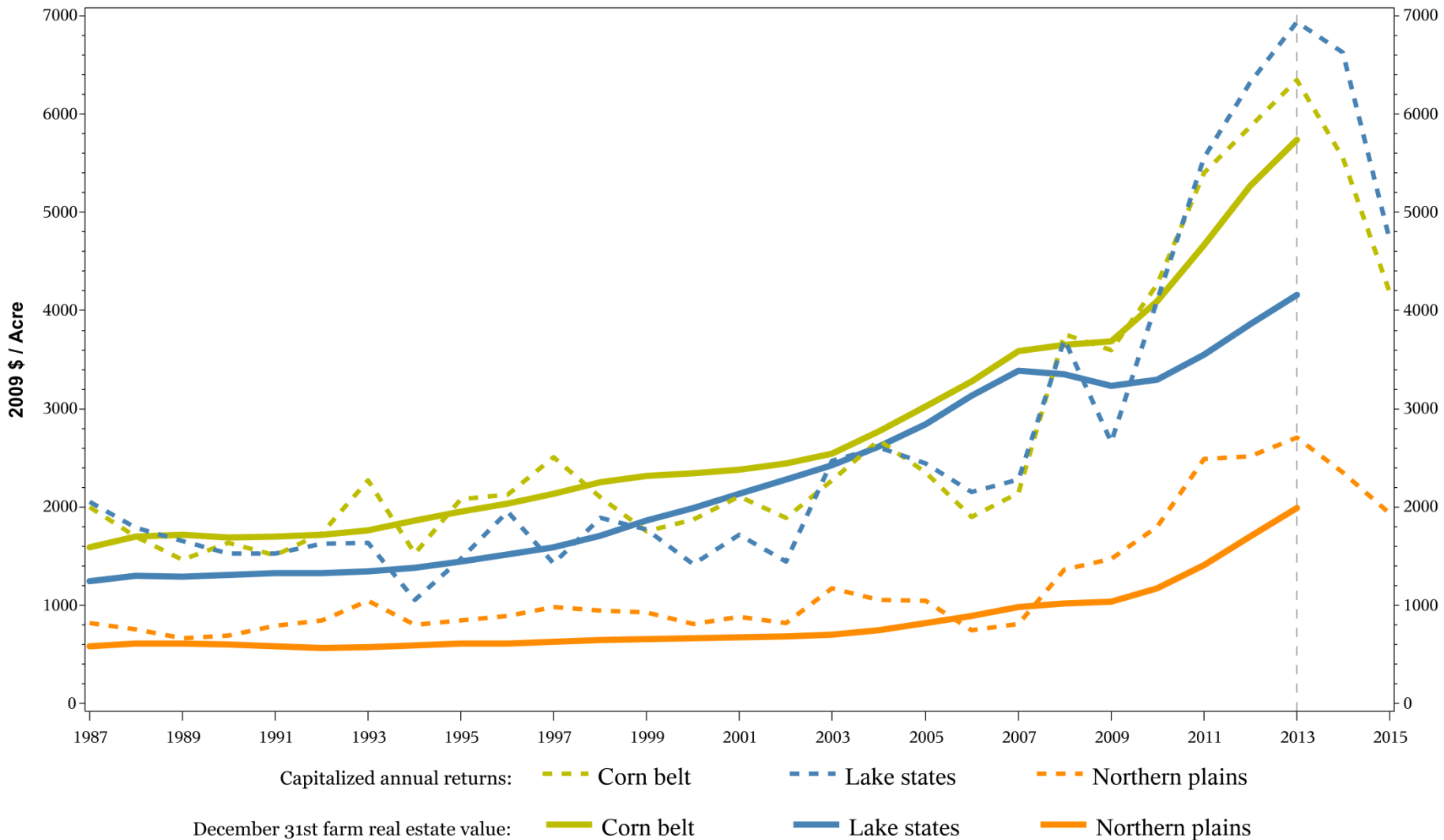


Note: Returns per acre are calculated as net cash income plus rental and real estate interest expenses.

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

# December 31st farm real estate values and returns

## Regions with highest real appreciation since 2009



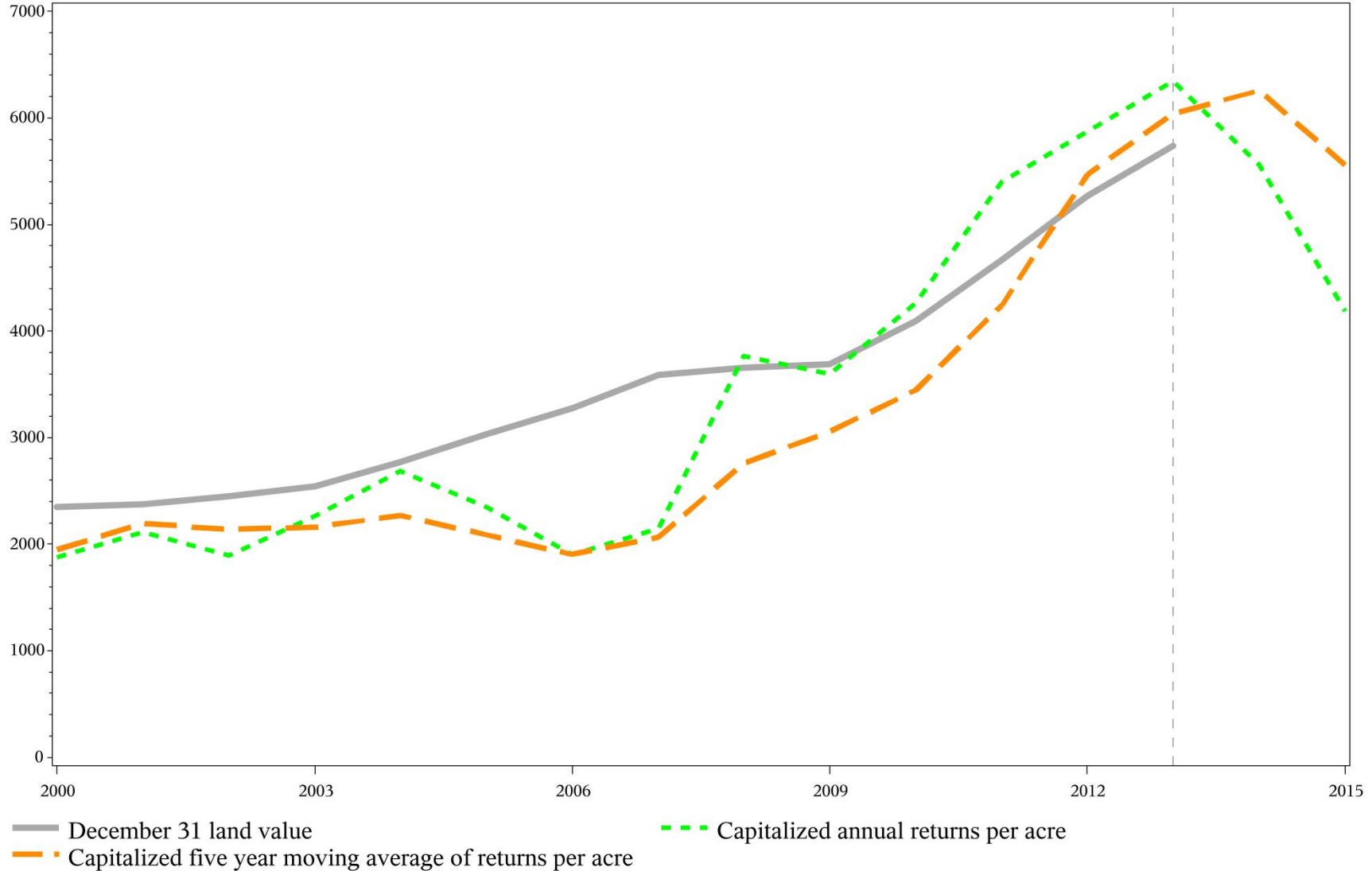
2014 and 2015 data forecast using partial budget model

Note: Returns per acre are calculated as net cash income plus rental and real estate interest expenses.

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

# December 31st land values and capitalized returns in the Corn Belt

2009 \$ / Acre

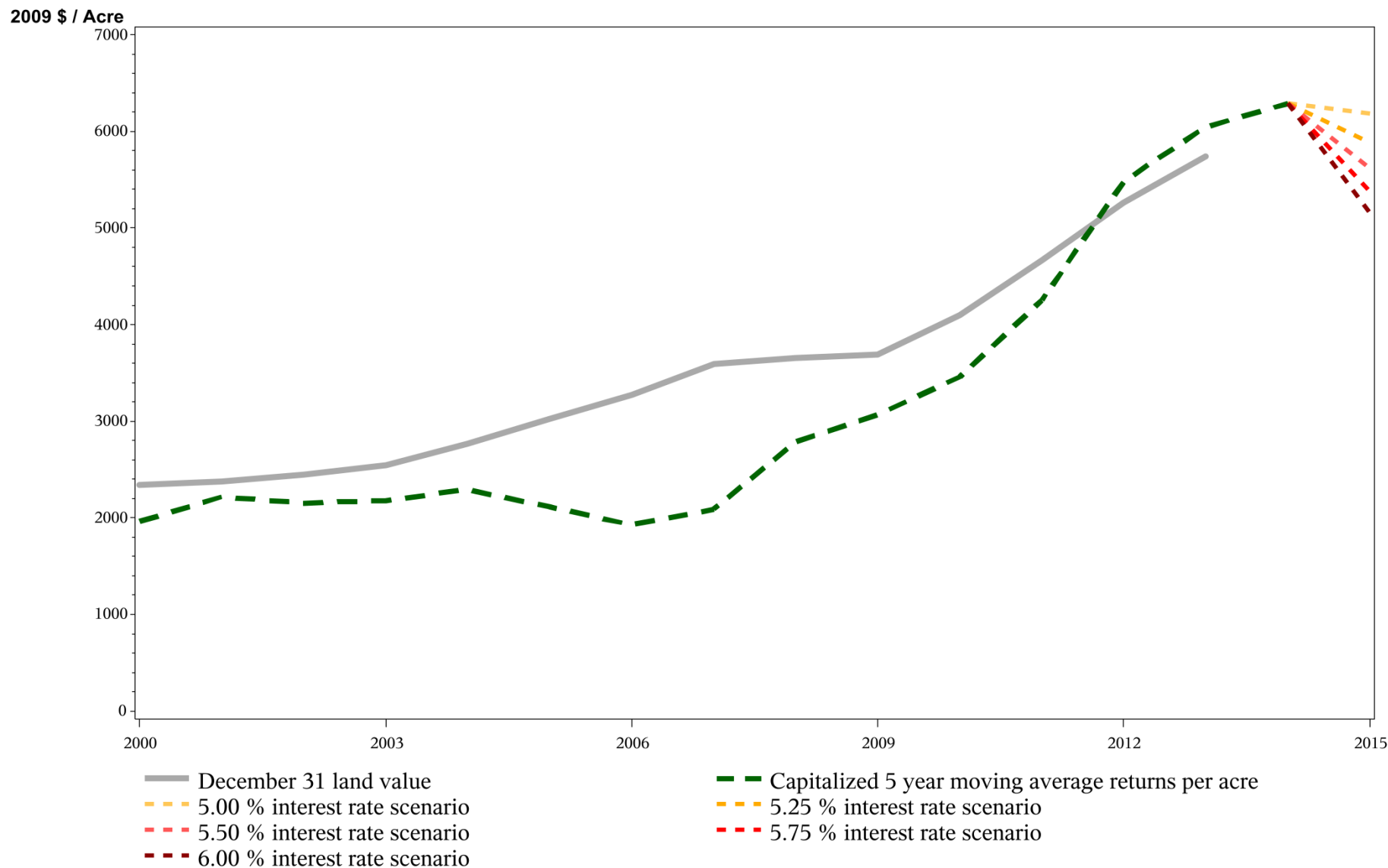


2014 and 2015 data are forecasts

Note: Returns per acre are calculated as net cash income plus rental and real estate interest expenses.

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

# Capitalized 5 year moving average returns under different 2015 interest rate scenarios in the Corn Belt



2014 and 2015 data are forecasts

Note: Returns per acre are calculated as net cash income plus rental and real estate interest expenses.

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

# Additional Analysis and Data

## Farm Sector Income & Finances

Analysis coinciding with each of the ERS farm income group data release.

<http://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances.aspx>

## Farm Sector Income and Wealth Statistics

Data product updated 3 times per year. Next update: August 25<sup>th</sup>, 2015.

Includes historical state and national estimates, and national forecasts.

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

## Charts and Maps of U.S. Farm Balance Sheet Data

Lets users visualize farm balance sheet data series and generate maps of farm real estate values for different years.

<http://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics/charts-and-maps-of-us-farm-balance-sheet-data.aspx>

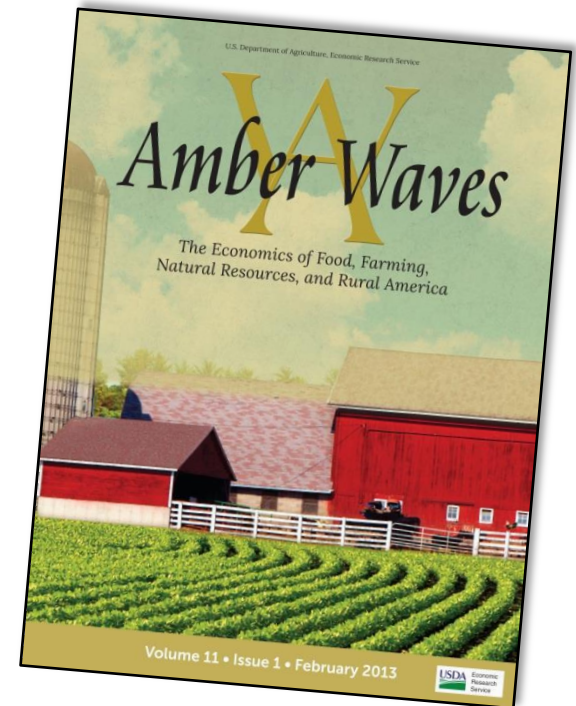


# ***Amber Waves:***

Presents current ERS economic and policy research on agriculture, food, rural America, and the environment for policymakers, academics and the public.

- Via **web connection** or **mobile app**

<http://www.ers.usda.gov/AmberWaves/>

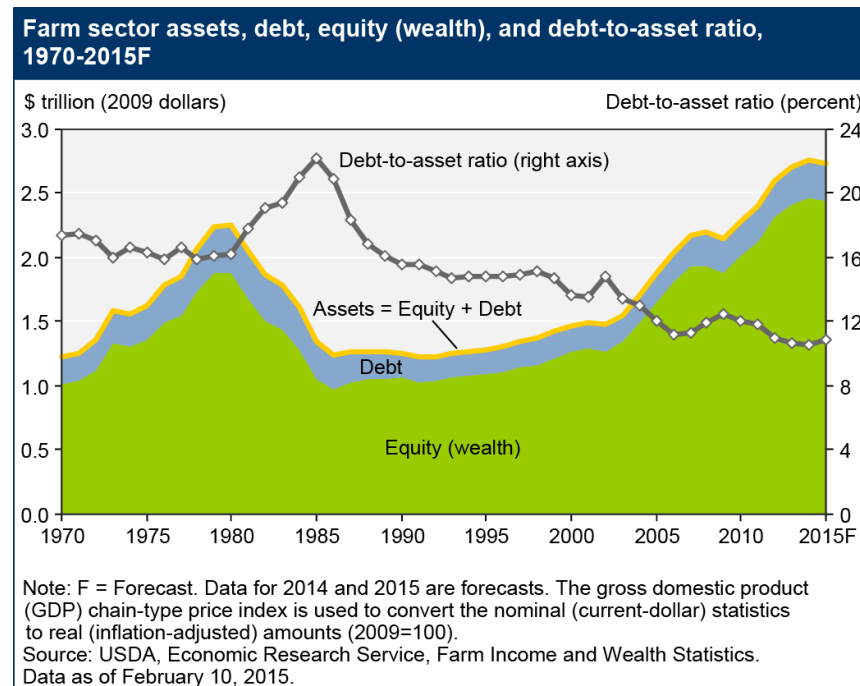




# Chart of Note:

Daily chart and short analysis on current ERS economic and policy research on agriculture, food, rural America, and the environment for policymakers, academics and the public.

<http://www.ers.usda.gov/ChartsOfNote>



Farm income Chart of Note  
from March 2<sup>nd</sup>, 2015.

# QUESTIONS?

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