

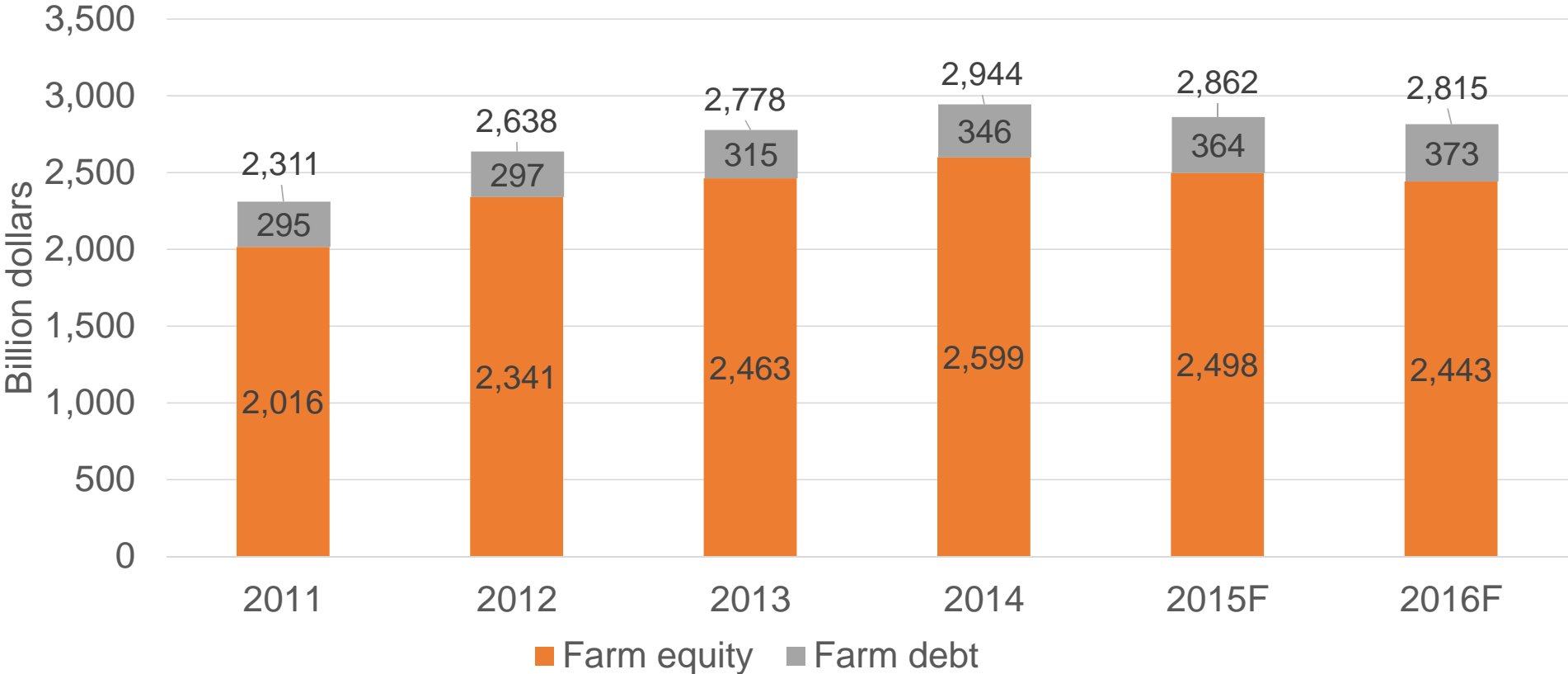
# **Dynamics of Farm Profitability: Factors Influencing the Decline in Farm Income**

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

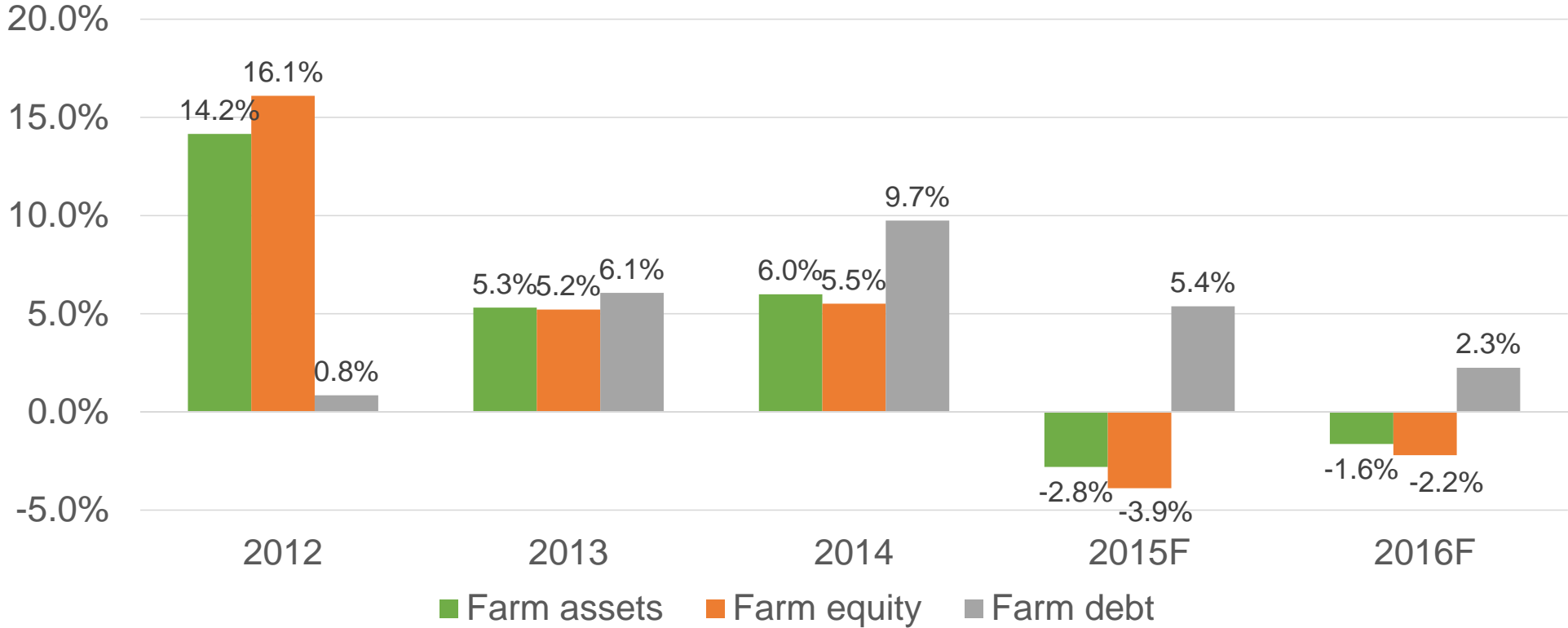
## Farm sector equity and debt



Source: USDA, ERS, Farm Income and Wealth Statistics.

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

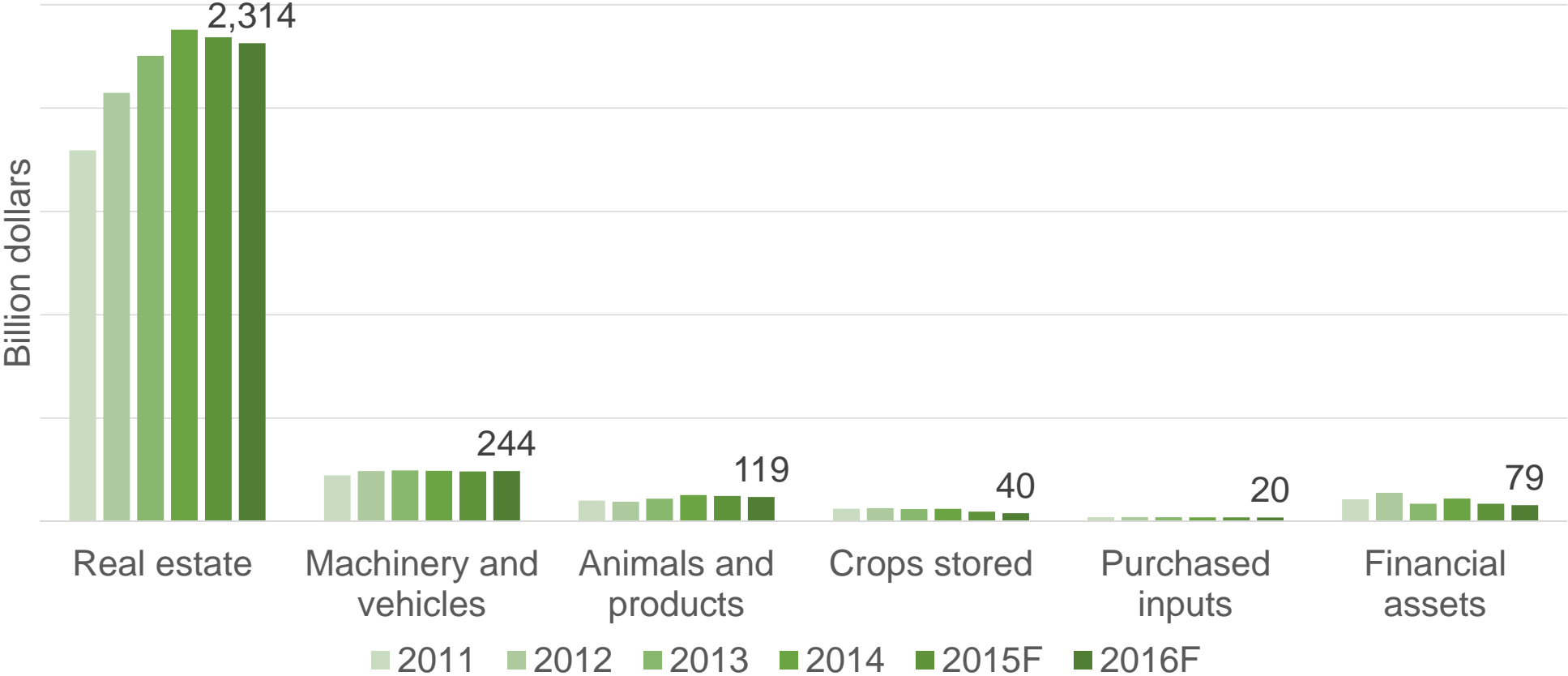
Change in farm sector assets, equity, and debt  
percent changes from previous year



Source: USDA, ERS, Farm Income and Wealth Statistics.

# Farm real estate assets represent 82% of farm assets; also expected to decline

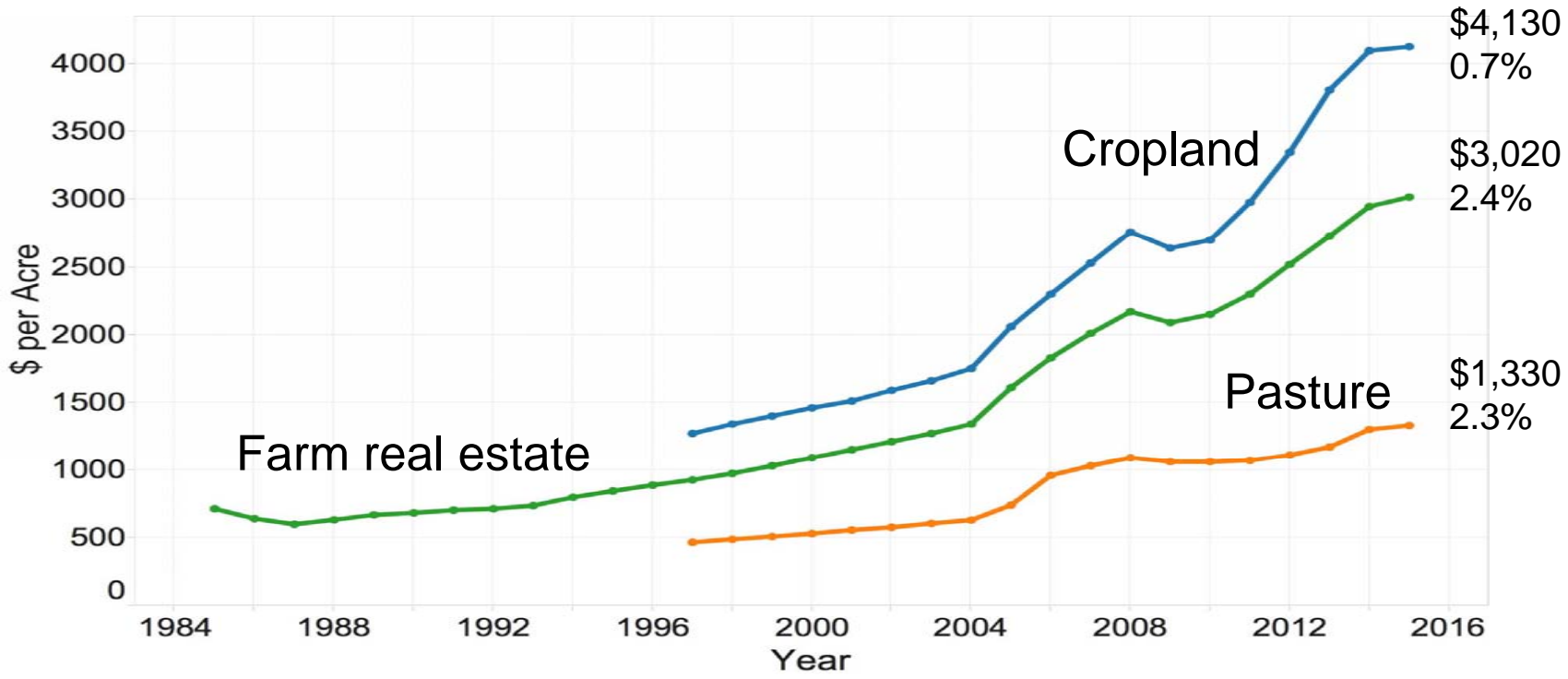
Farm sector assets by type



Source: USDA, ERS, Farm Income and Wealth Statistics.

# Growth in farmland values

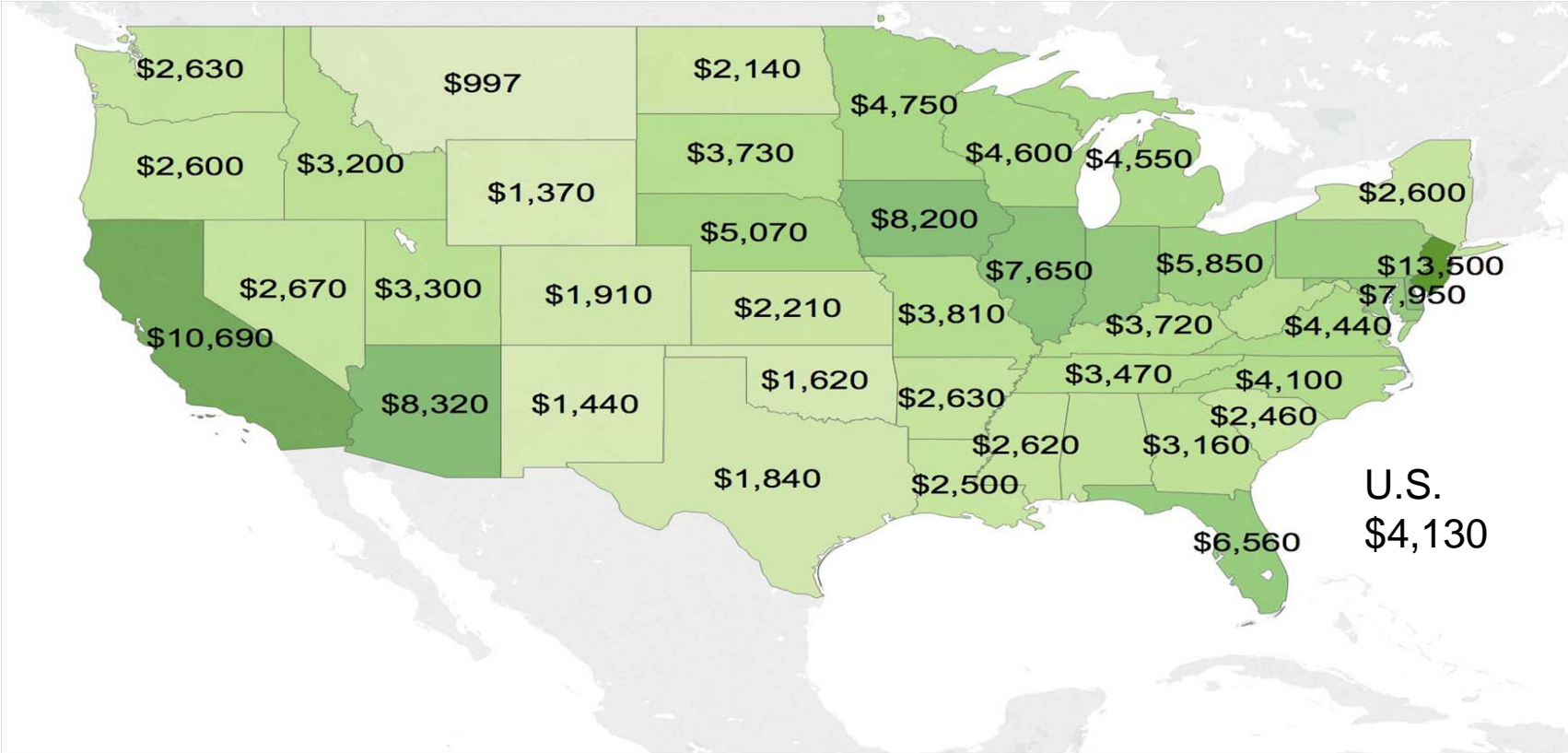
## Farm real estate values per acre, U.S.



Source: USDA, NASS. Land Values Summary.

# Cropland values show major differences by state

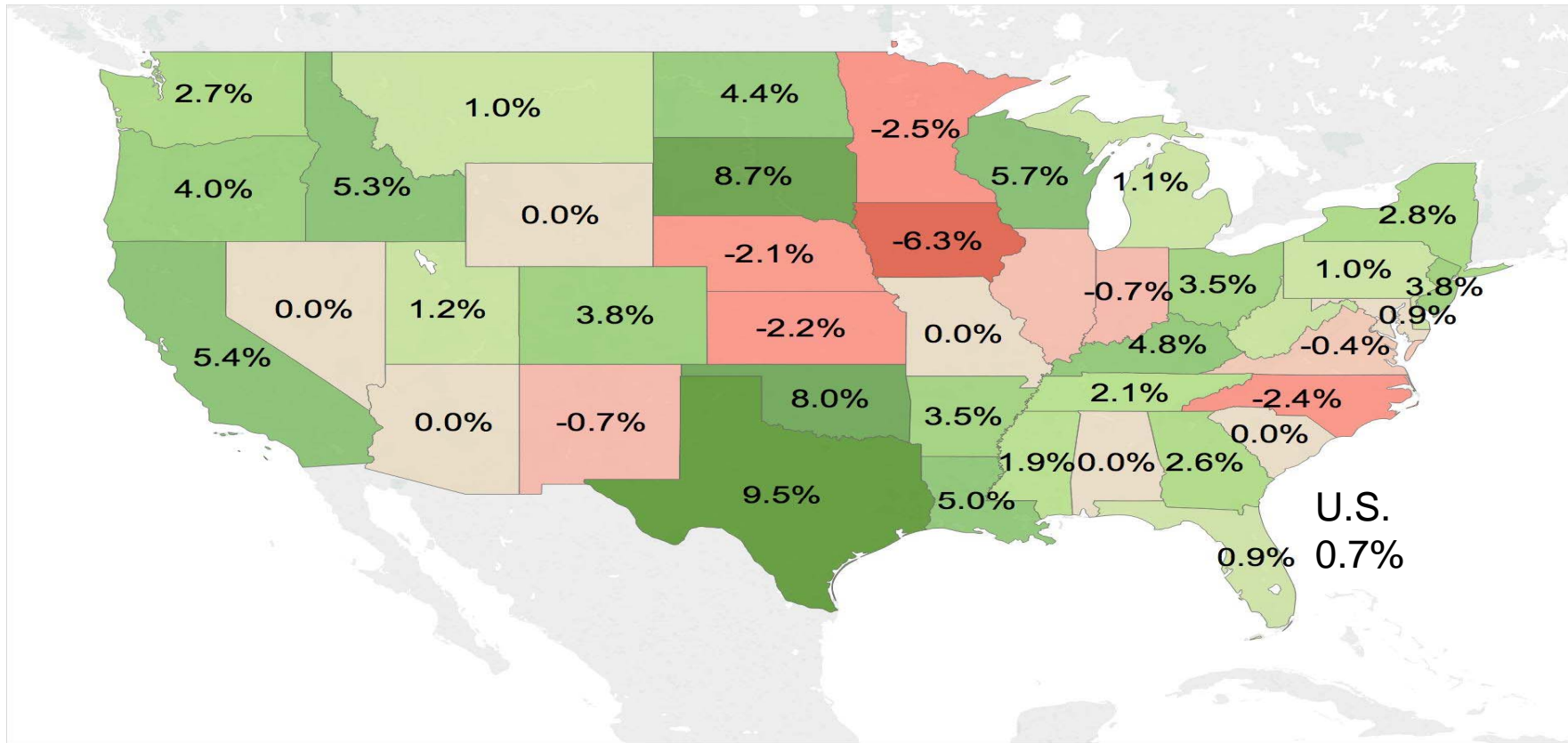
Value per acre for cropland, 2015



Source: USDA, NASS. Land Values Summary.

# Small increase in cropland values, some regions see declines

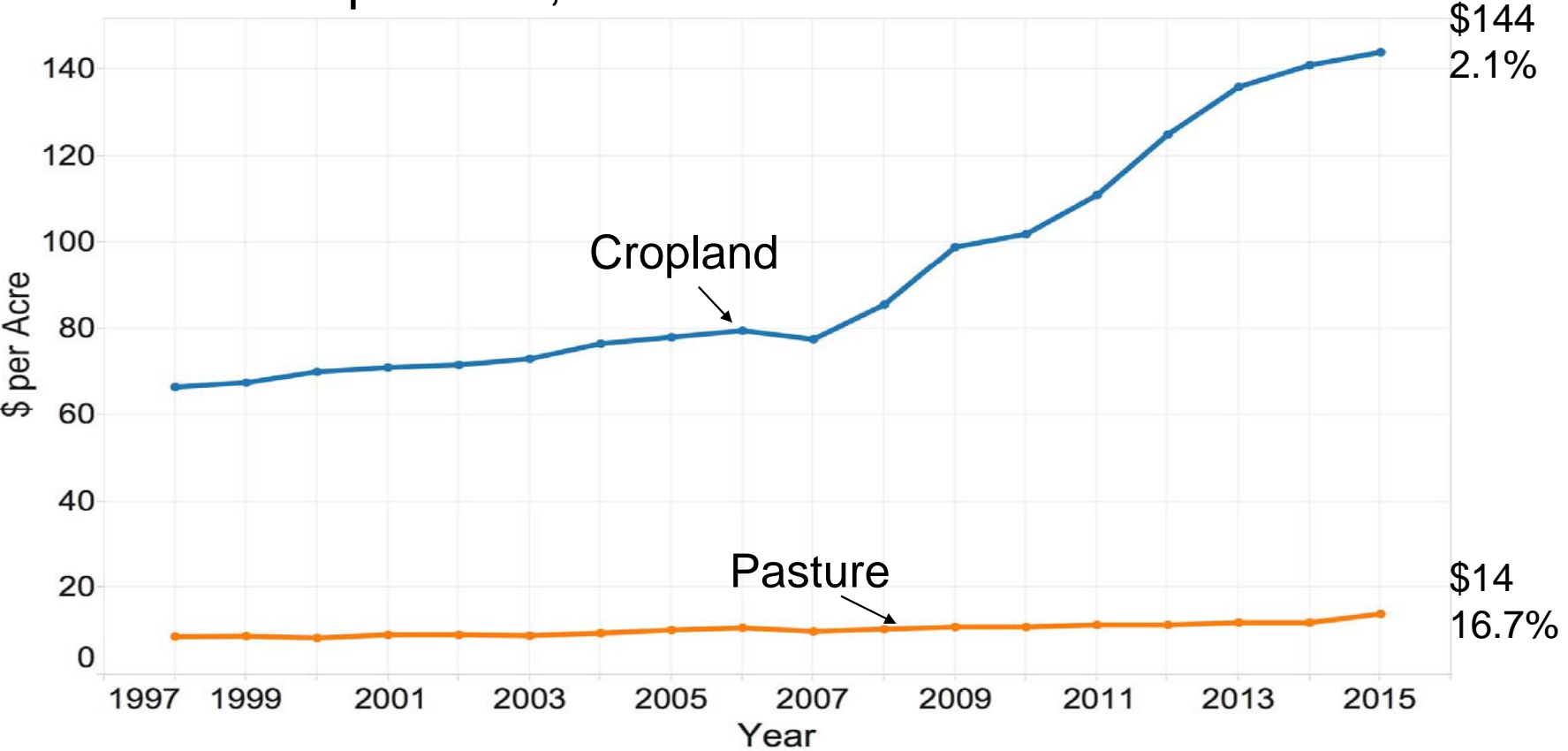
Cropland values per acre, percent change 2014-2015



Source: USDA, NASS. Land Values Summary.

# Growth in cash rent for farmland

## Cash rent per acre, U.S.

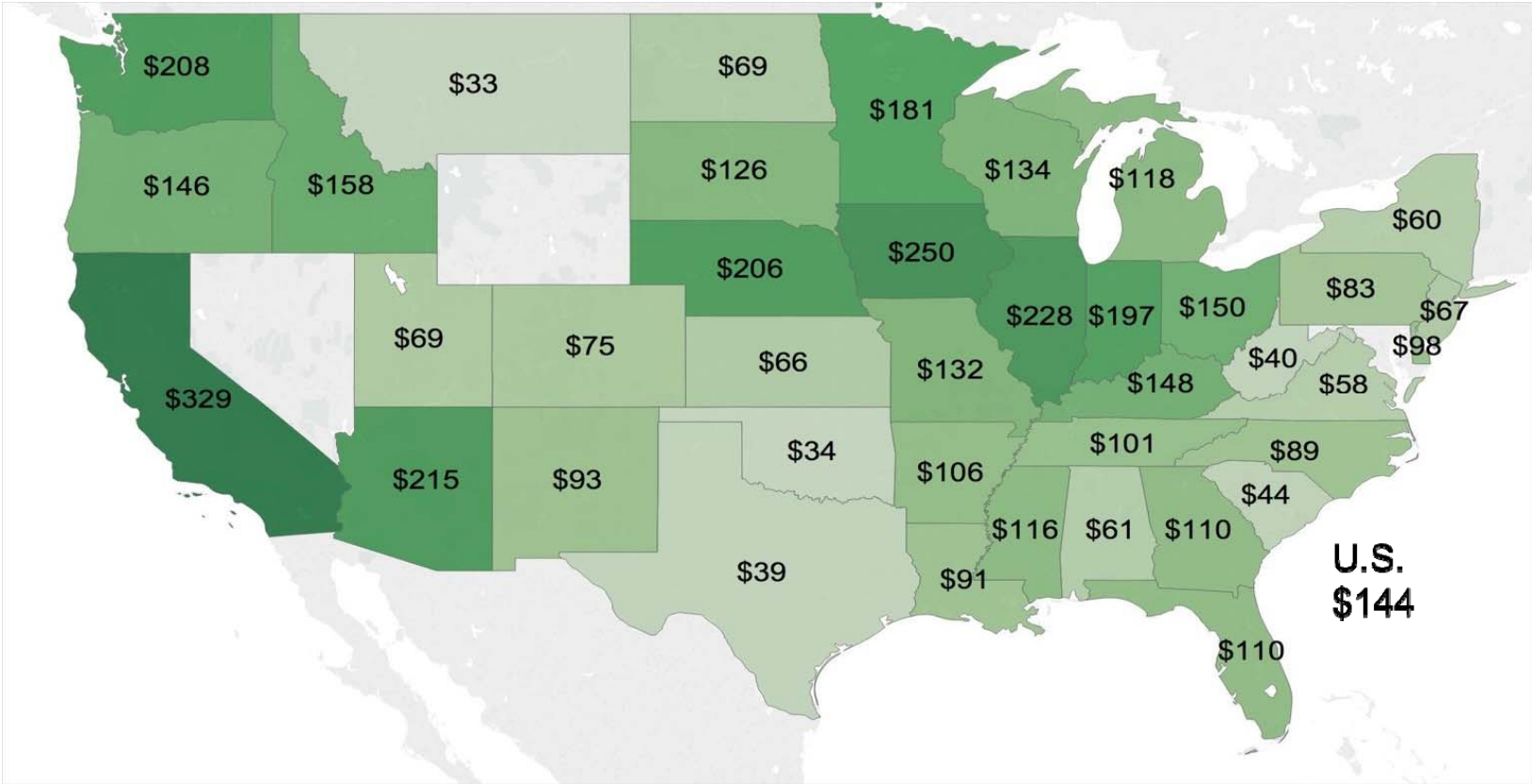


Source: USDA, NASS, Cash Rent Survey.



# Cash rents show considerable variation by state

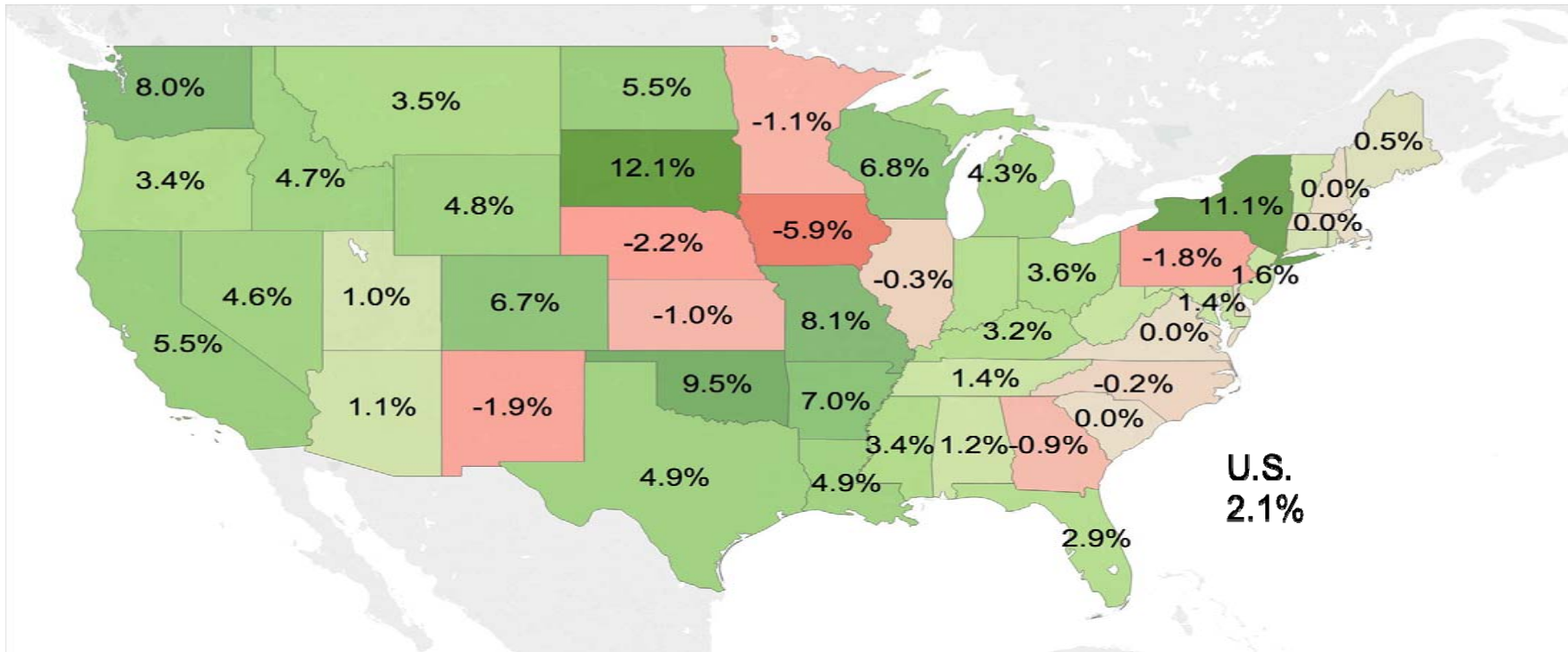
## Cash rent per acre for cropland, 2015



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.

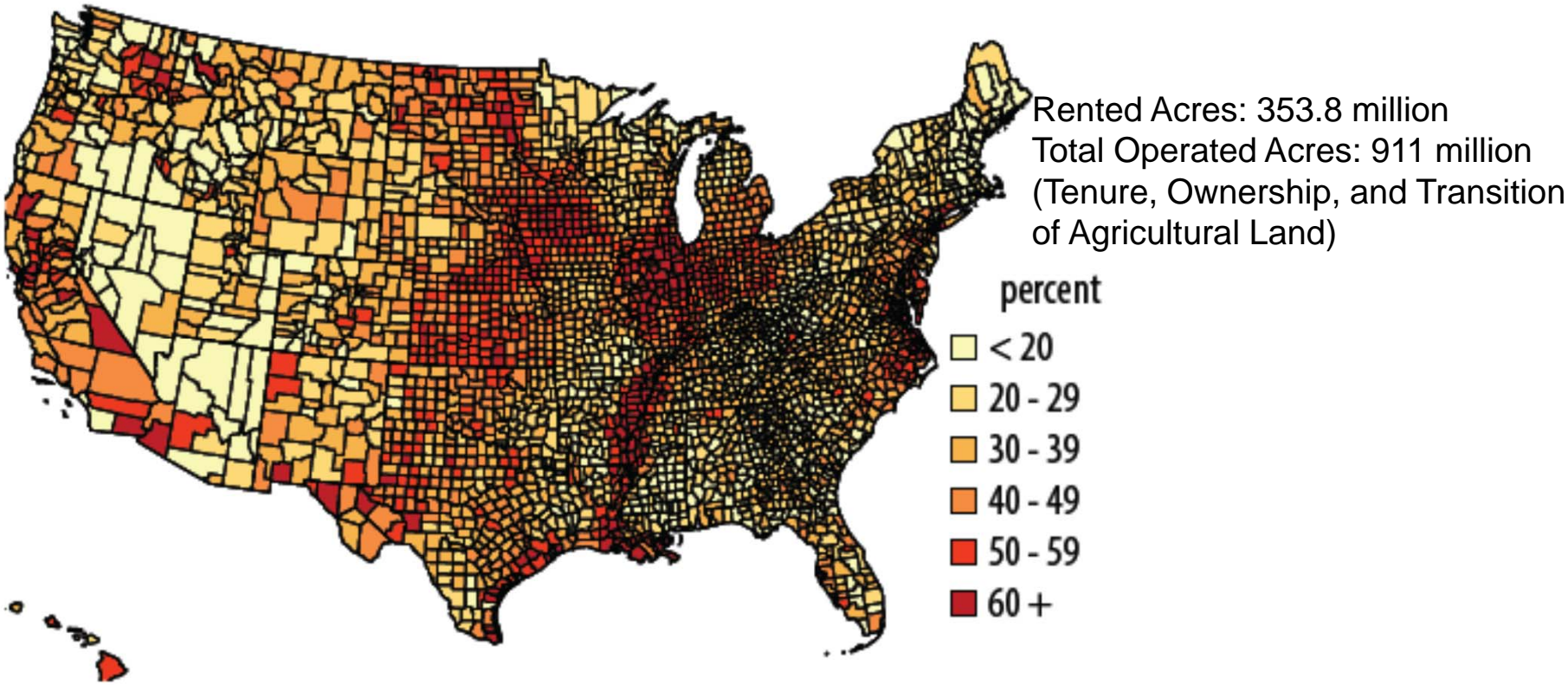
## Landowners for land rented out

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

Source: USDA, Tenure, Ownership, and Transition of Agricultural Land, 2014.

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

## Percent of Farmland Rented, 2012



Source: USDA, Census of Agriculture.

# Beginning farmers own and rent less land than established farmers

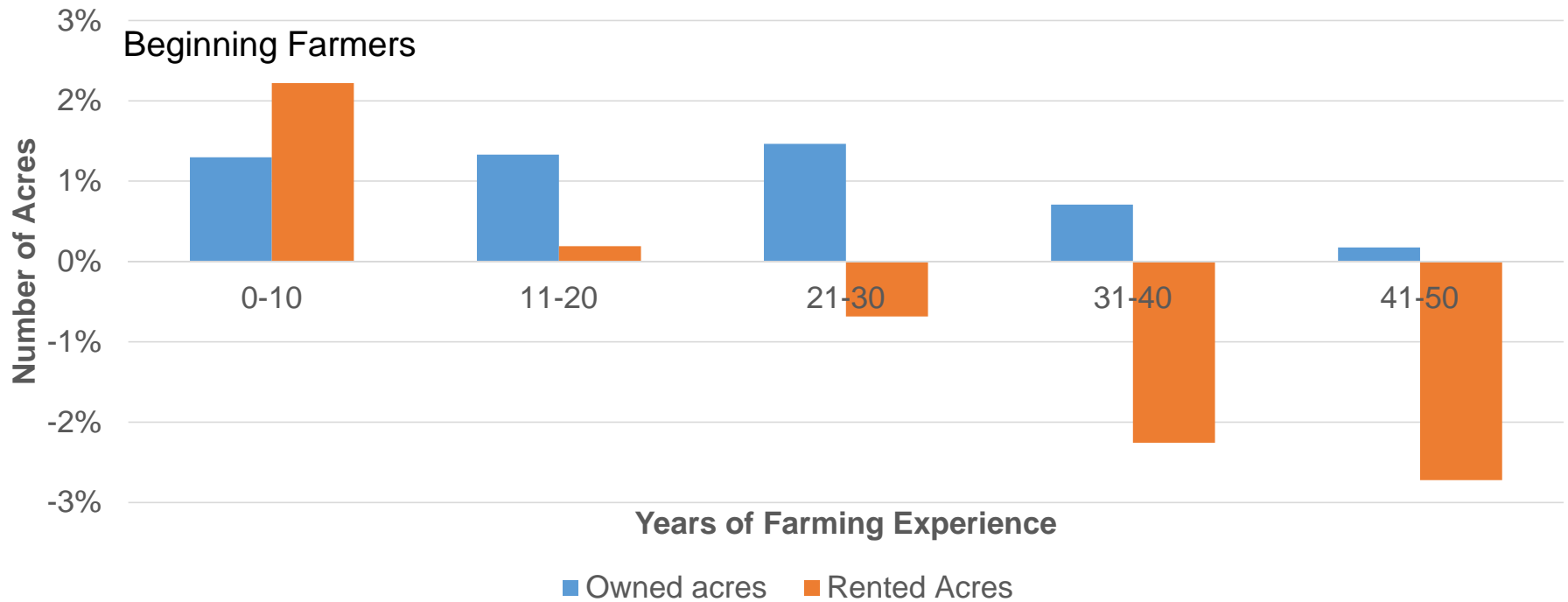
Owned and Rented Acres for U.S. Farmers by Years of Farming Experience, 2002



Source: USDA Census of Agriculture, 2002-2012. Katchova and Ahearn (2016)

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

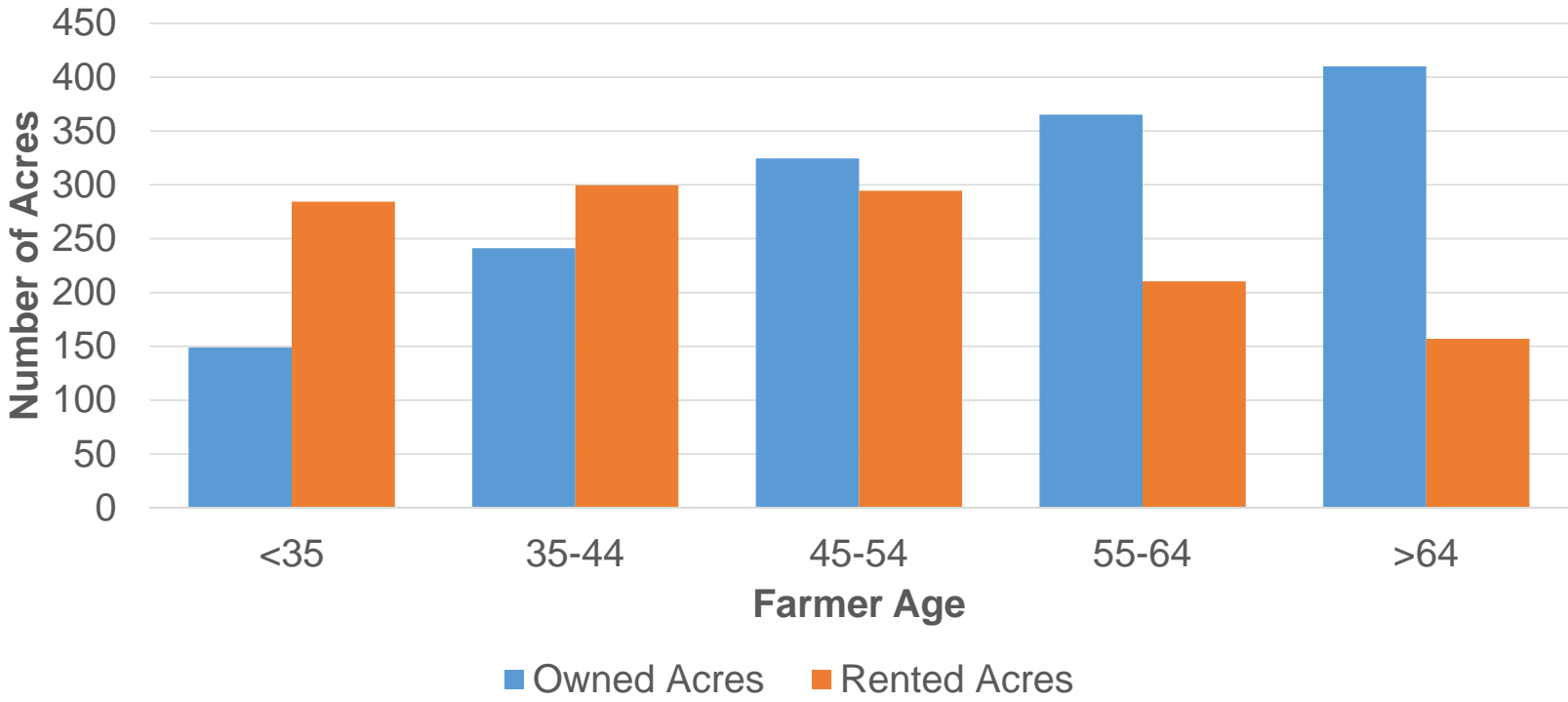
Annual Growth Rates for Owned and Rented Acres for U.S. Farmers, 2002-2012



Source: USDA Census of Agriculture, 2002-2012. Katchova and Ahearn (2016)

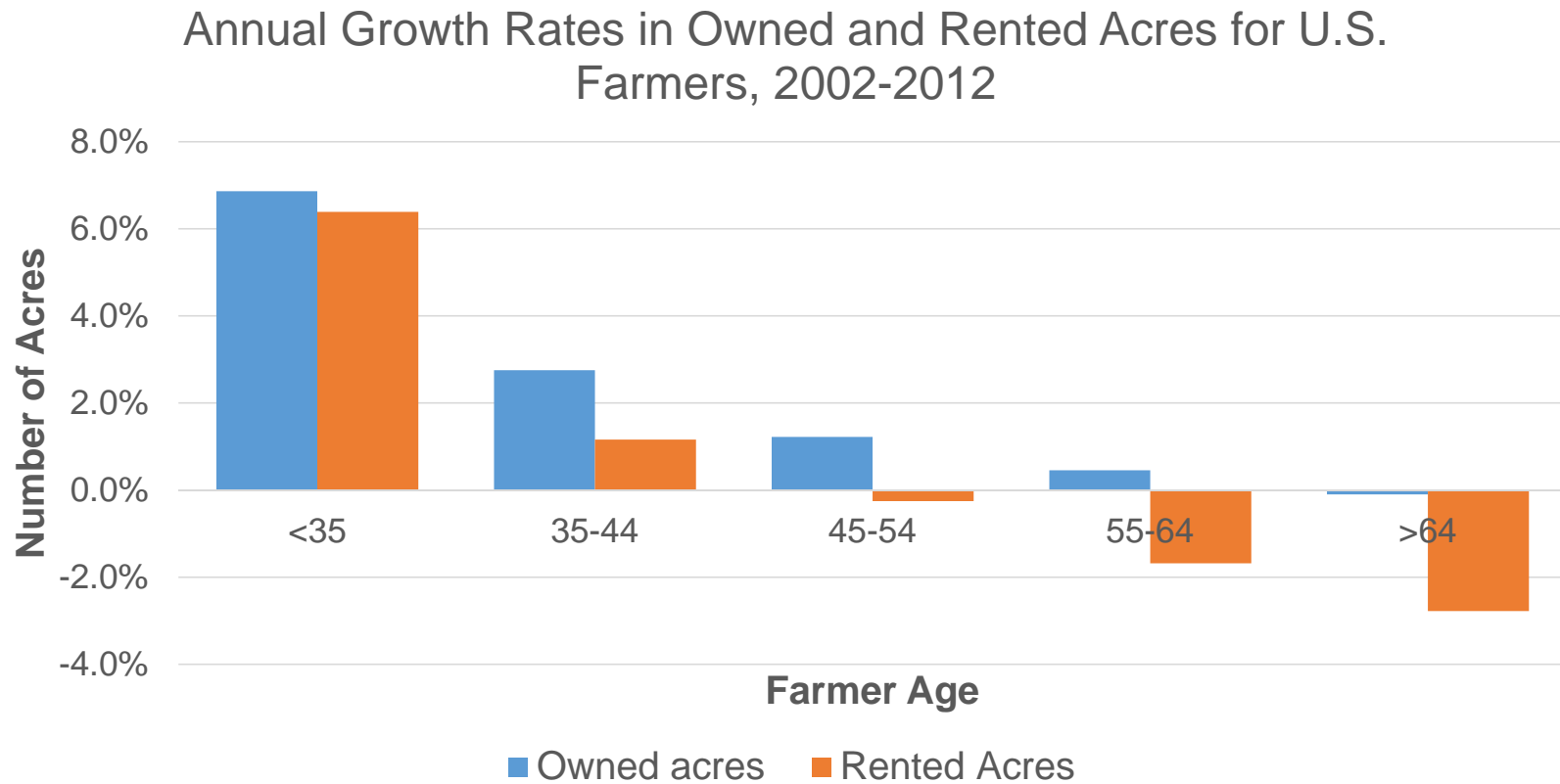
# Young farmers own least land and rent most

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



Source: USDA Census of Agriculture, 2002-2012. Katchova and Ahearn (2016)

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

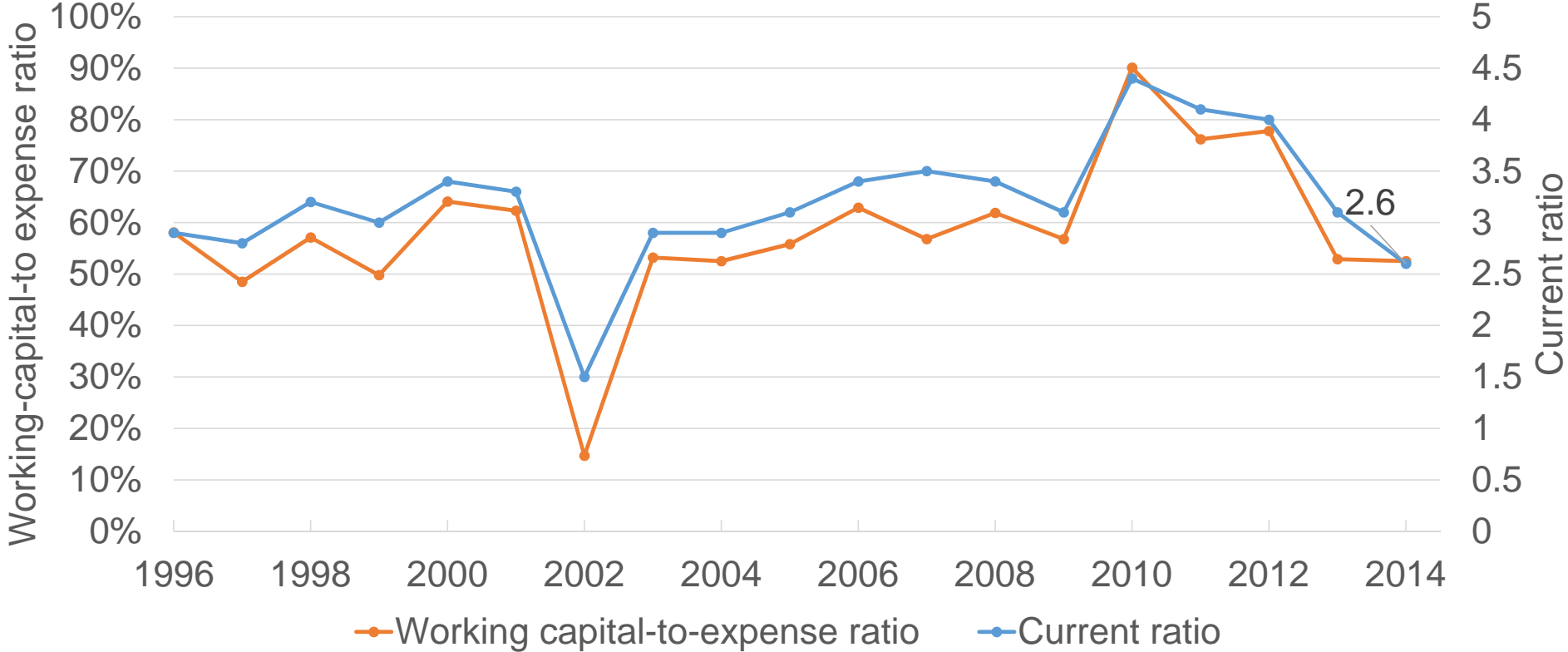


Source: USDA Census of Agriculture, 2002-2012. Katchova and Ahearn (2016)



# Liquidity has declined

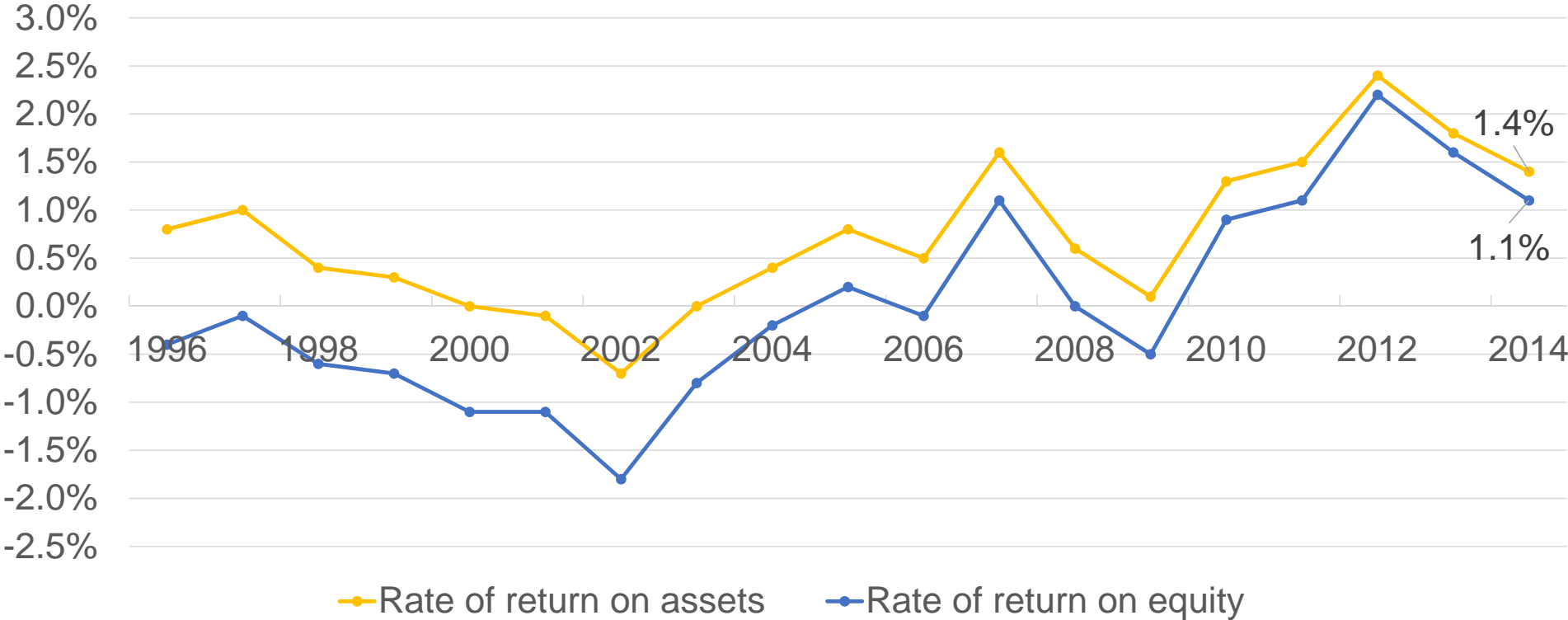
## Farm liquidity ratios



Source: USDA, ARMS.

# Profitability has been declining but still positive

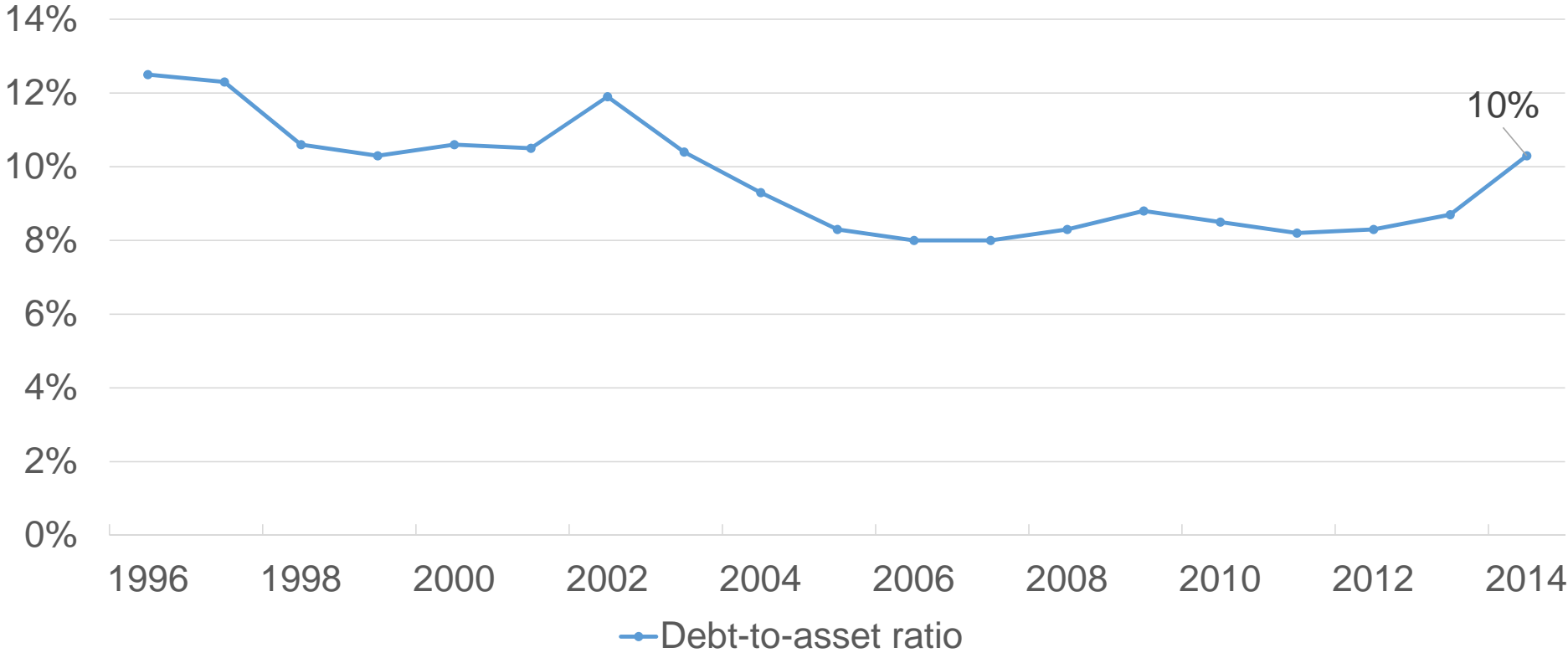
Farm profitability ratios (ROA and ROE)



Source: USDA, ARMS.

# Debt-to-asset ratios have been increasing

Farm solvency (debt-to-asset ratio)



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.