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United States Department of Agriculture

USDA's  
93rd  
Annual

# Agricultural Outlook Forum

## A New Horizon: The Future of Agriculture

February 23-24, 2017 • Crystal Gateway Marriott Hotel, Arlington, Virginia

Presentation from the USDA Agricultural Outlook Forum 2017

United States Department of Agriculture  
93<sup>rd</sup> Annual Agricultural Outlook Forum  
“A New Horizon: The Future of Agriculture”

February 23-24, 2017  
Arlington, Virginia

# OUTLOOK FOR 2017

**Robert Johansson**

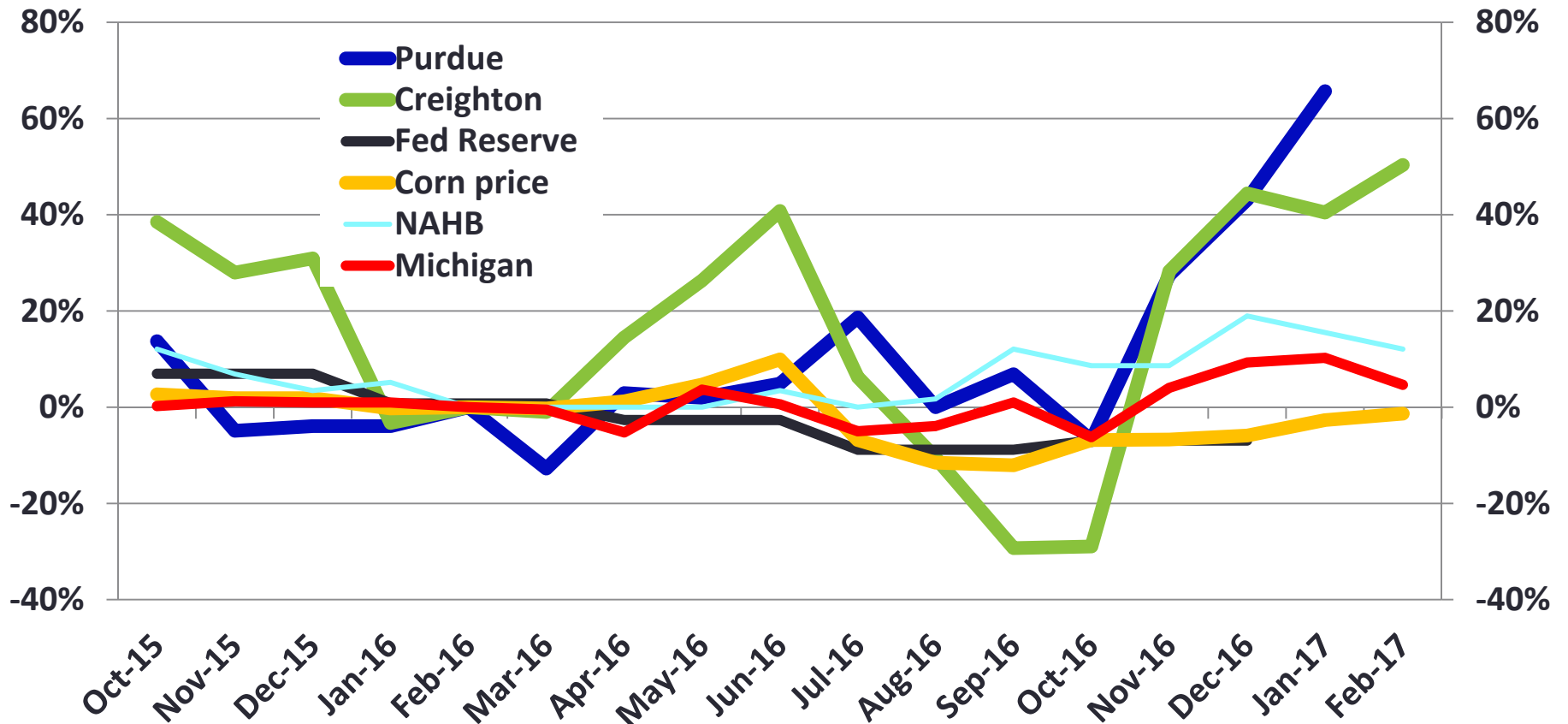
**Chief Economist**

**US Department of Agriculture**

**February 2017**



## Sentiment diverges compared to 2016



Data: USDA, UofMich, Purdue, Fed Reserve, NAHB, Creighton.

# 2017 ISSUES

## 1. Current situation

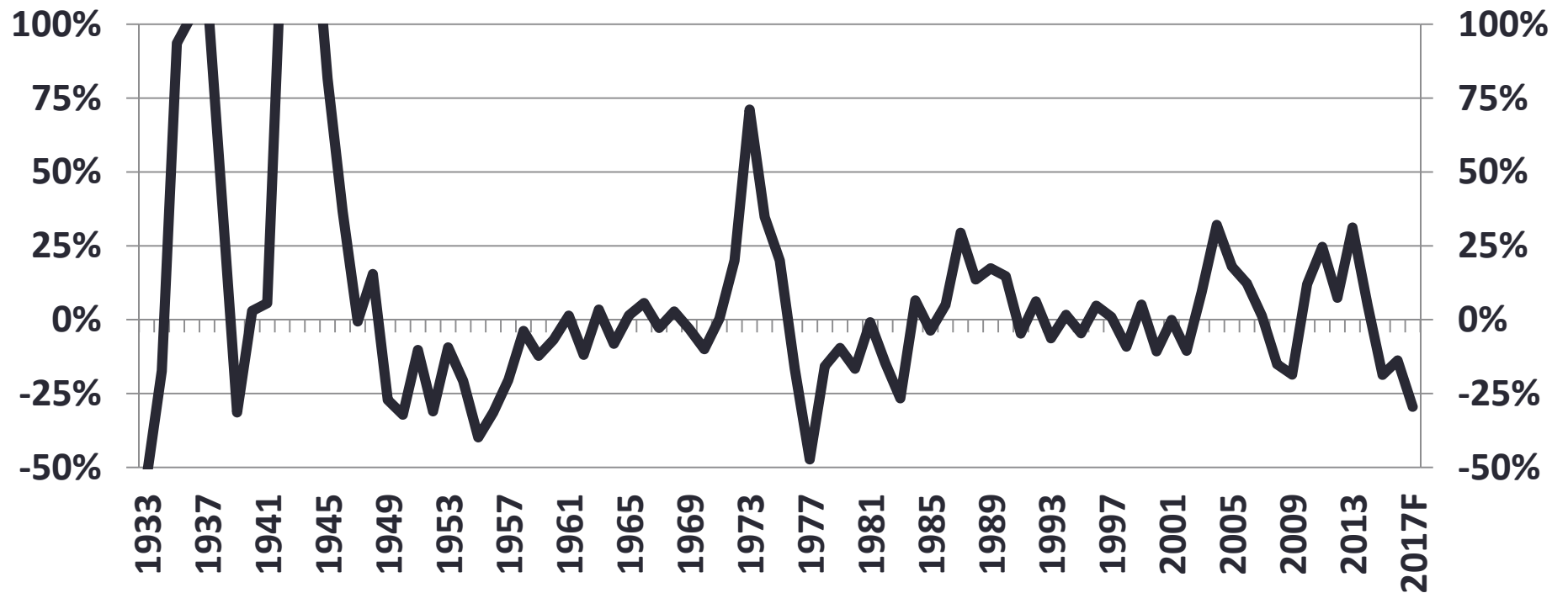
- Flat farm income, but debt-to-asset remains low
- Increasingly tight credit situation
- Land price adjustments
- Farm programs working with mixed results

## 2. Outlook

- Prices flat
- Production up
- Trade up
- Food prices down

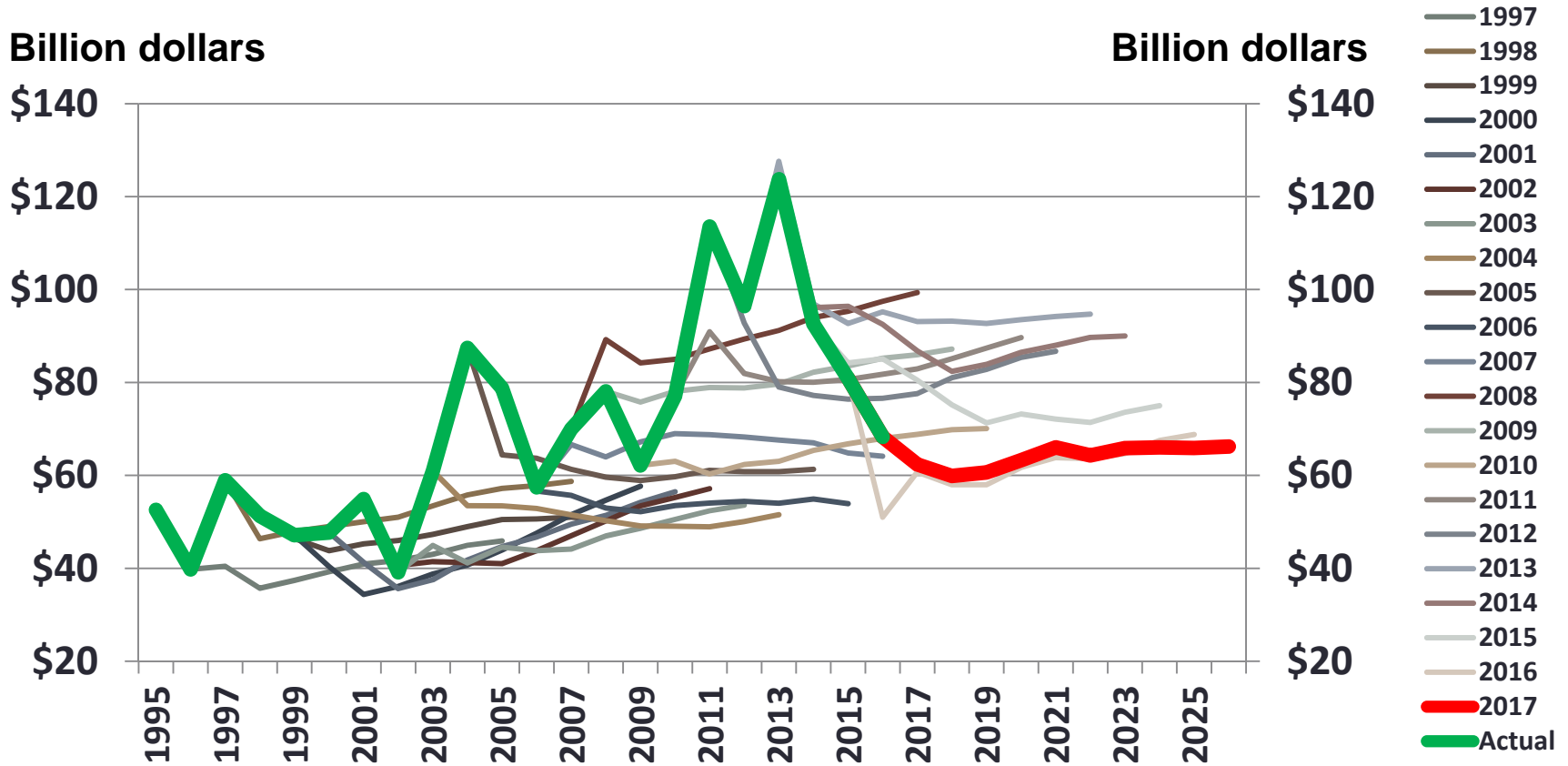
# Real farm income down almost 30% since 2013

4-yr % change in real farm income



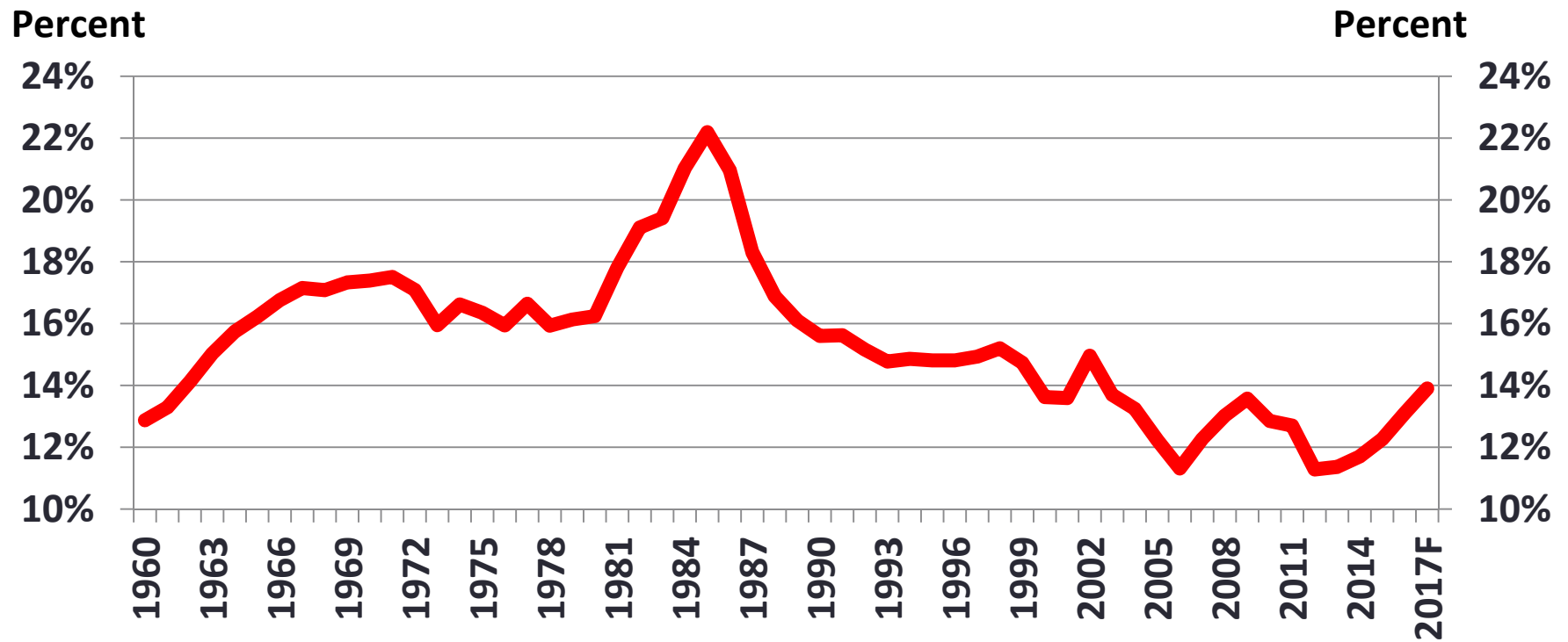
Data: USDA-ERS.

# Net farm income expected to remain flat



Data: USDA.

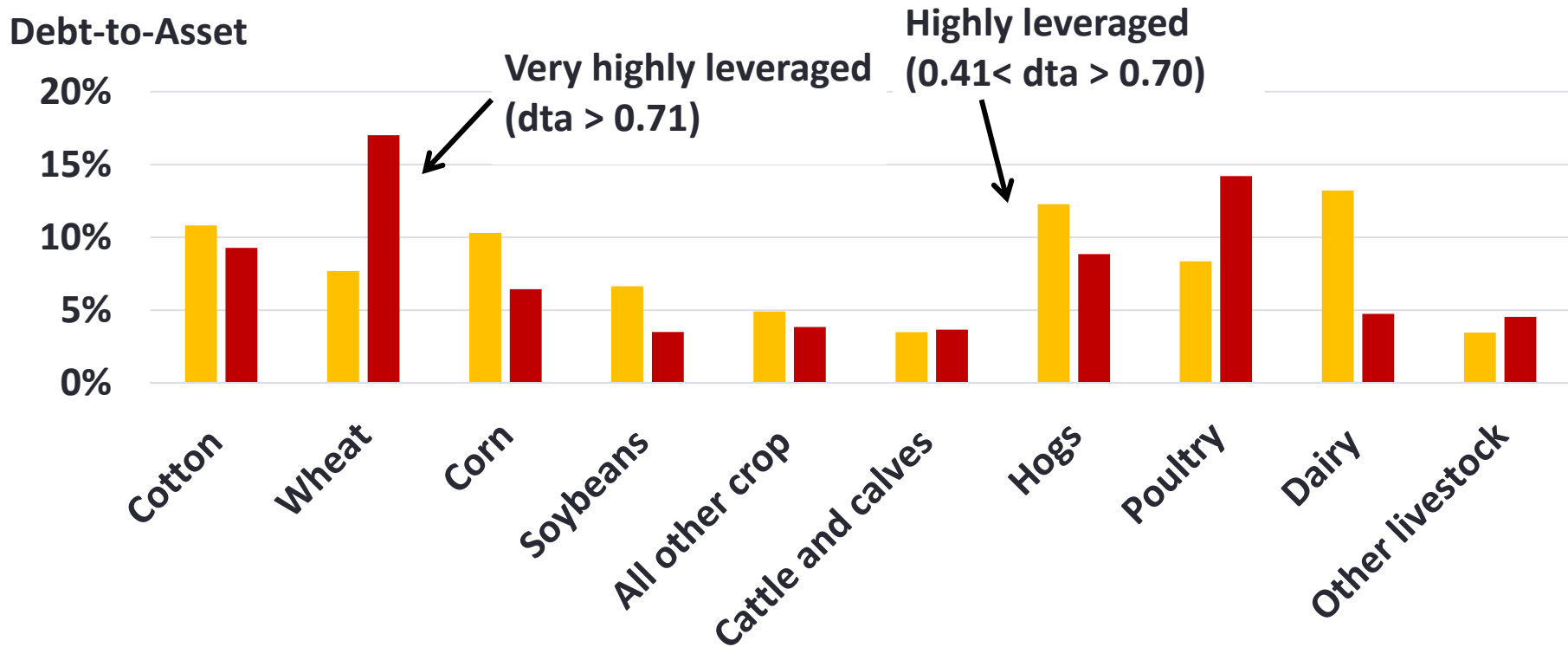
## Debt-to-asset ratio remains low vs. 22% in 1985



Data: USDA-ERS.



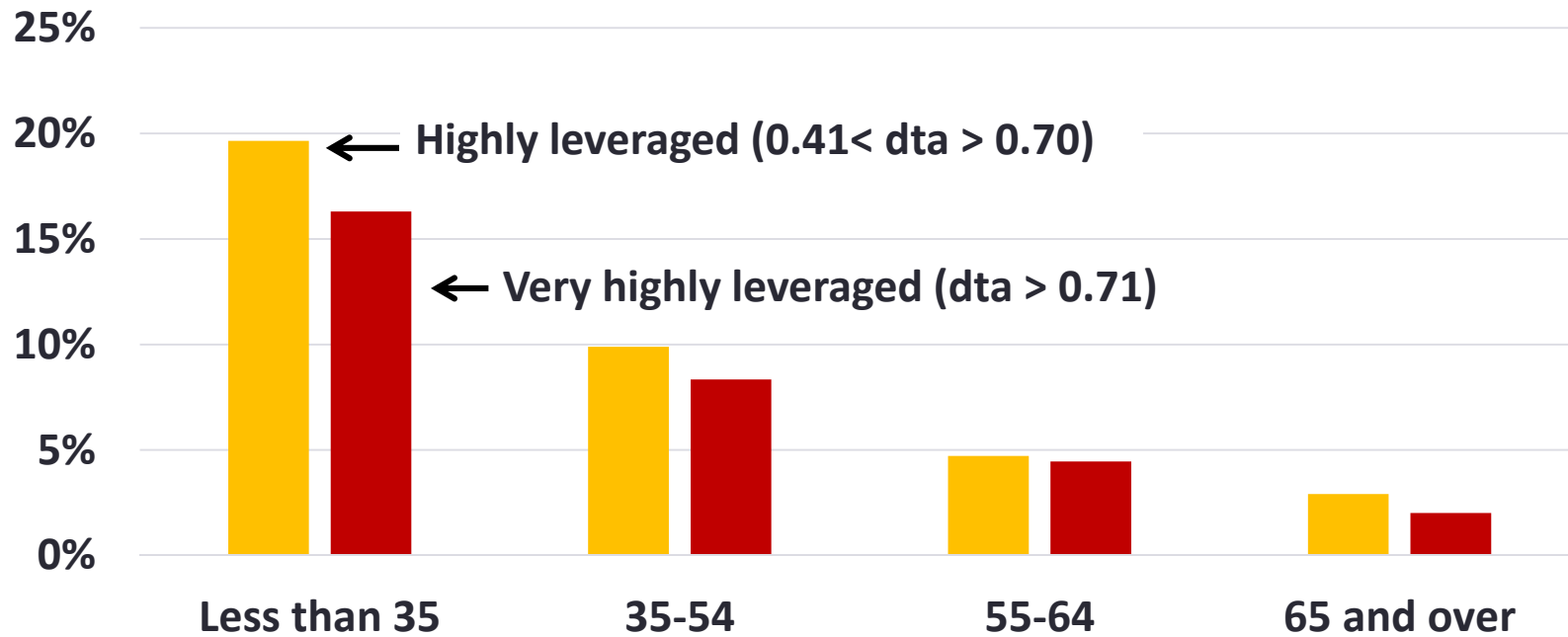
# About 1 in 5 wheat, cotton, hog, poultry businesses more vulnerable to low prices



Data: USDA-ERS.

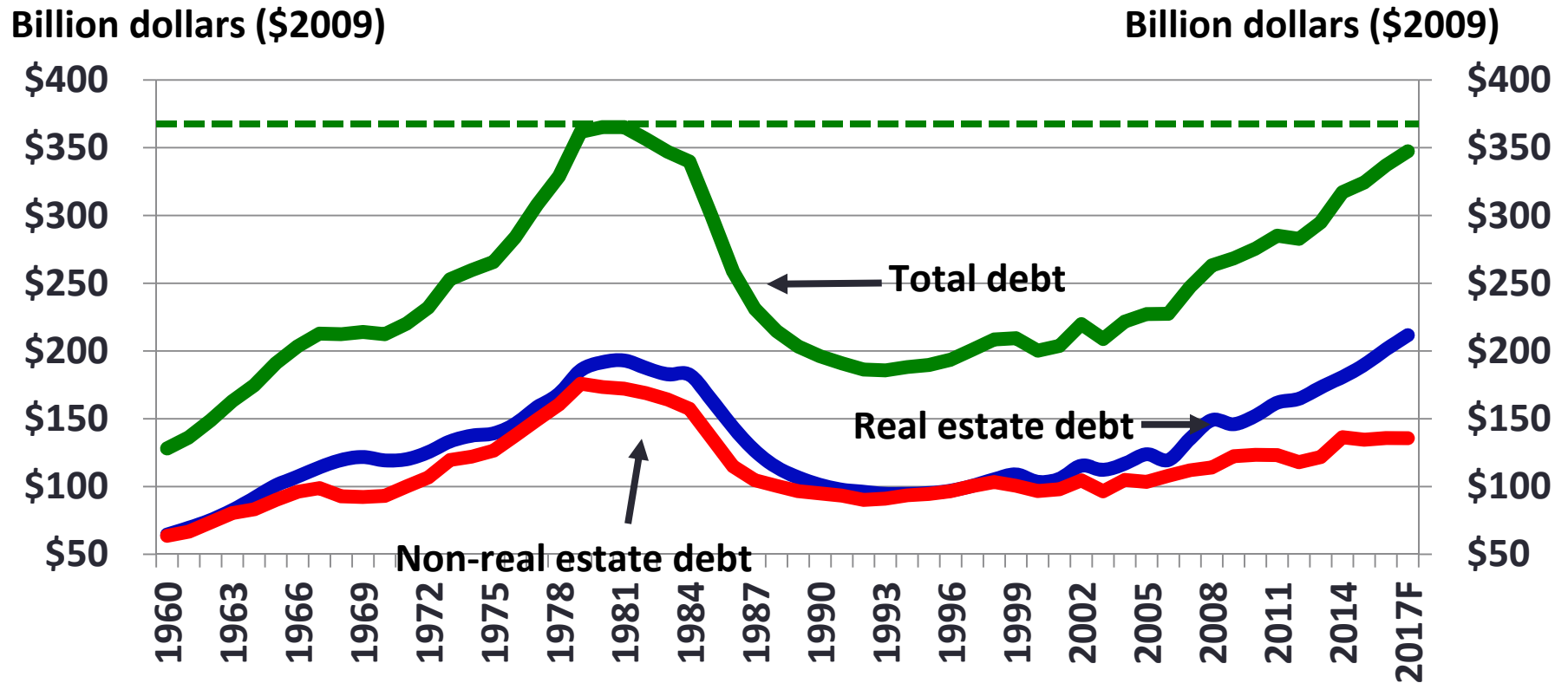
# More than one-third of young farmers are highly or very highly leveraged

## Debt-to-Asset



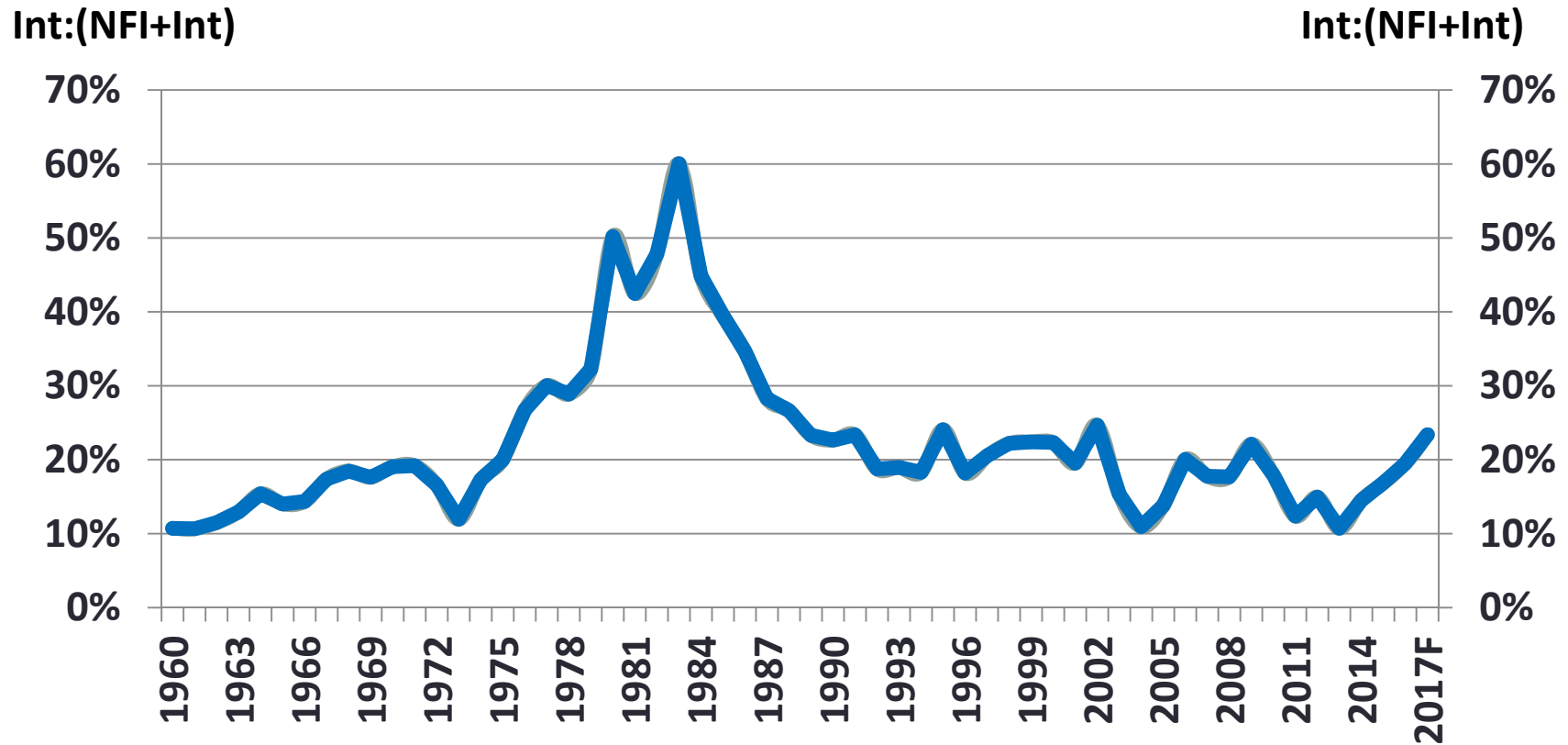
Data: USDA-ERS.

## Debt approaching early 80's peak



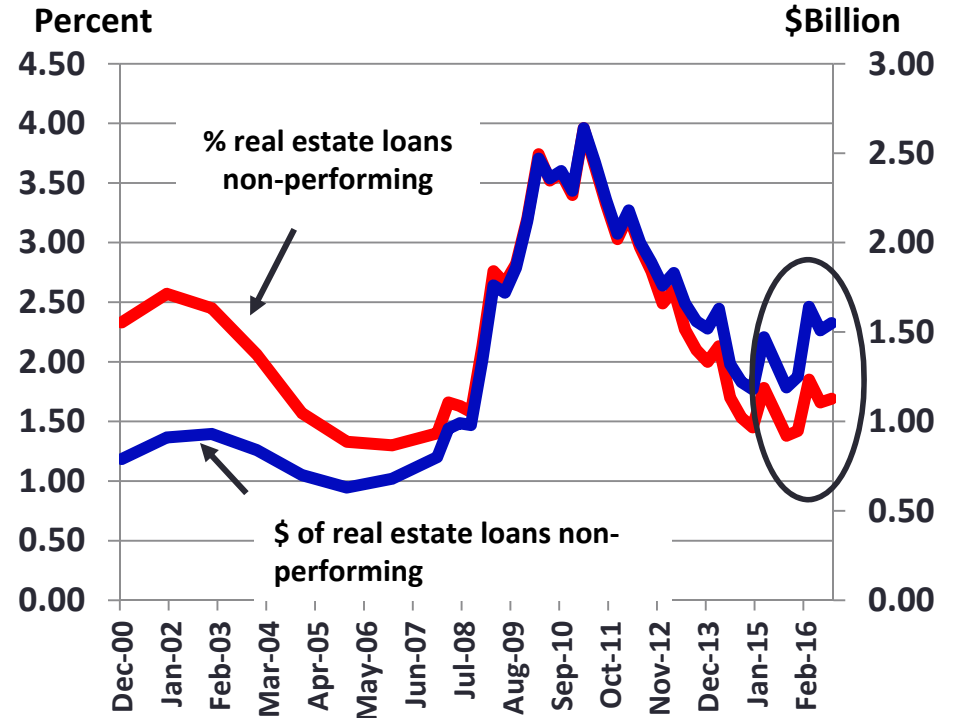
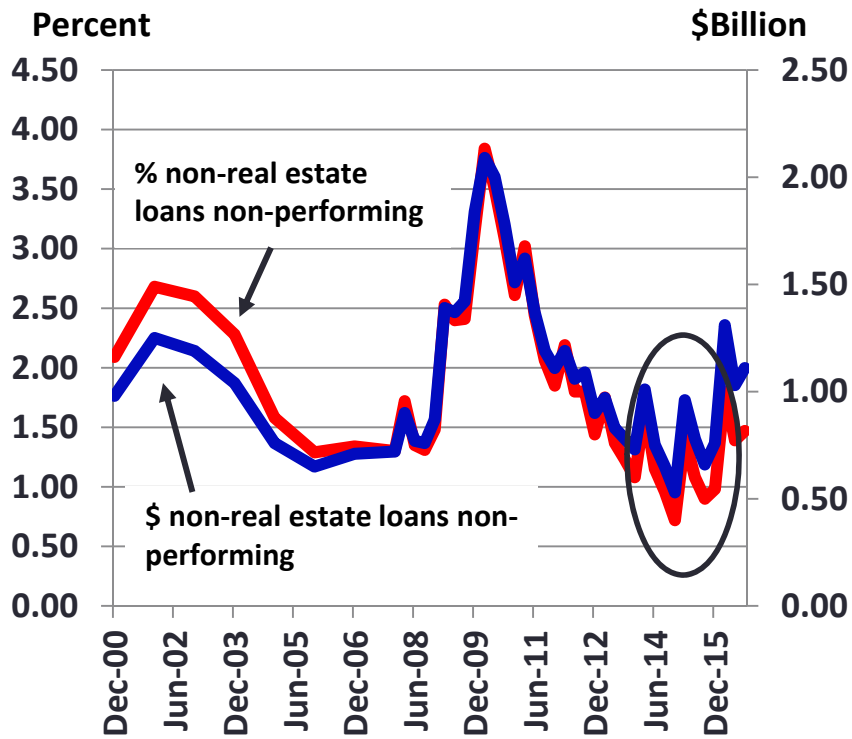
Data: USDA-ERS.

## ...but interest payments remain low



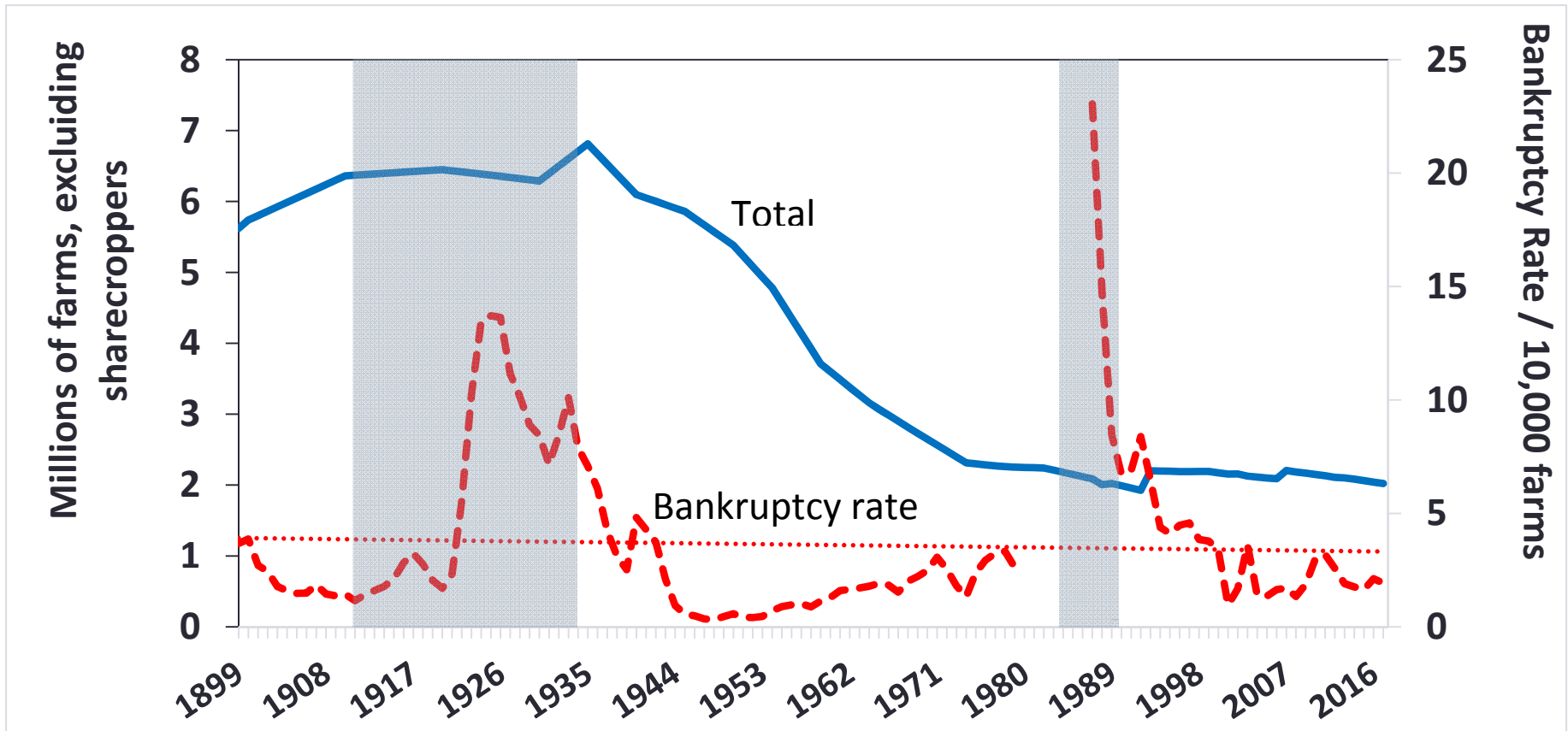
Data: USDA-ERS.

# Loan repayment problems have begun to rise



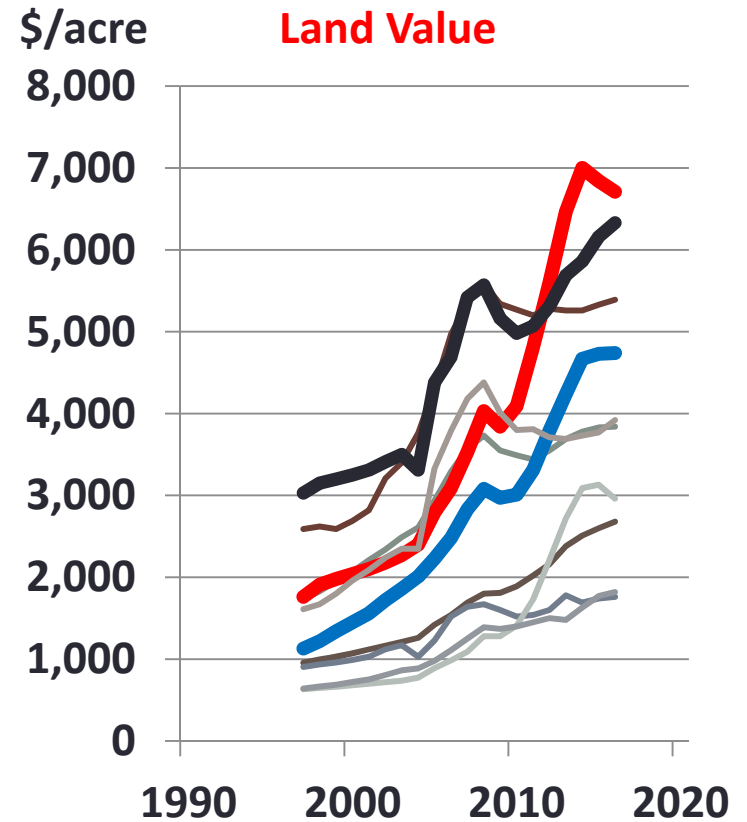
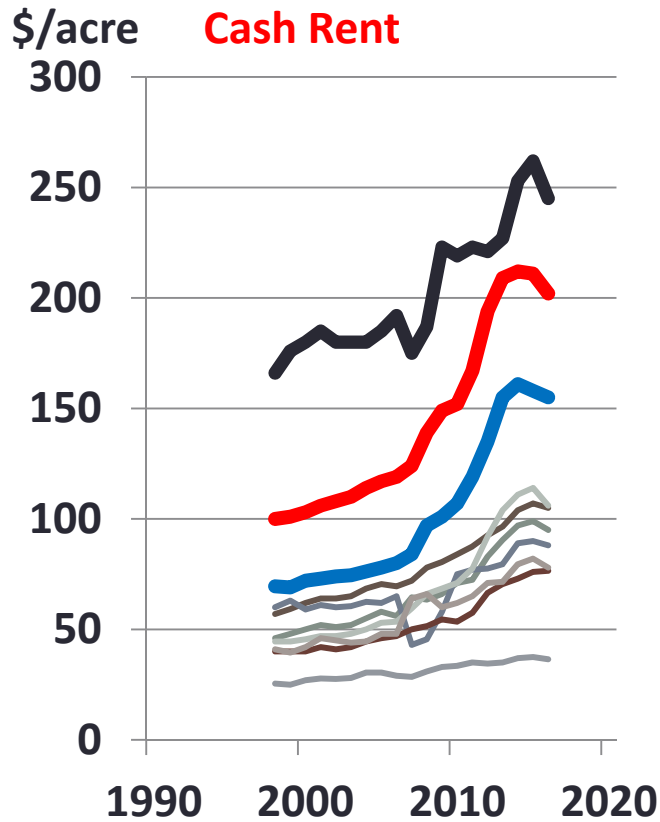
Data: Federal Reserve Board of Governors.

# ... but farm bankruptcy rates remain very low



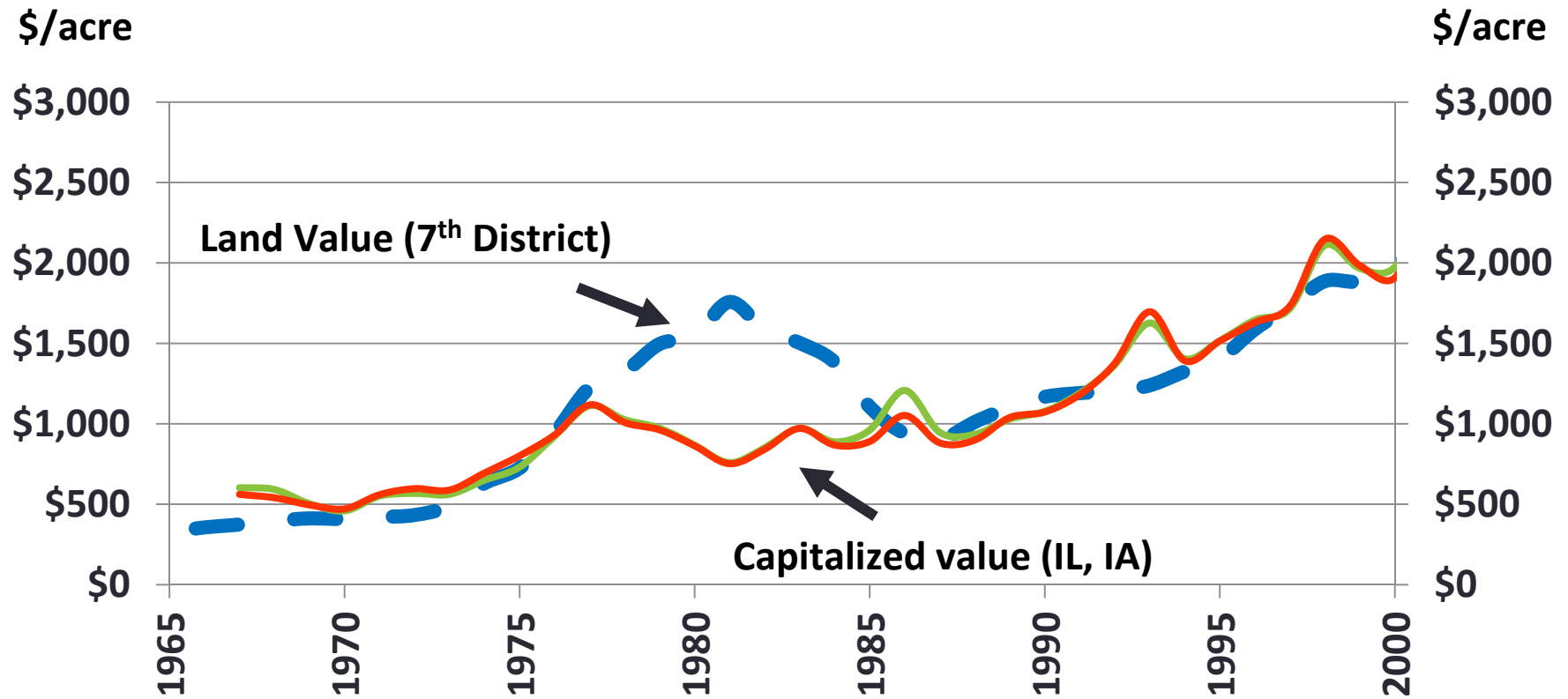
Source: USDA-ERS.

# Falling rents ahead of land values



Data: USDA-NASS.

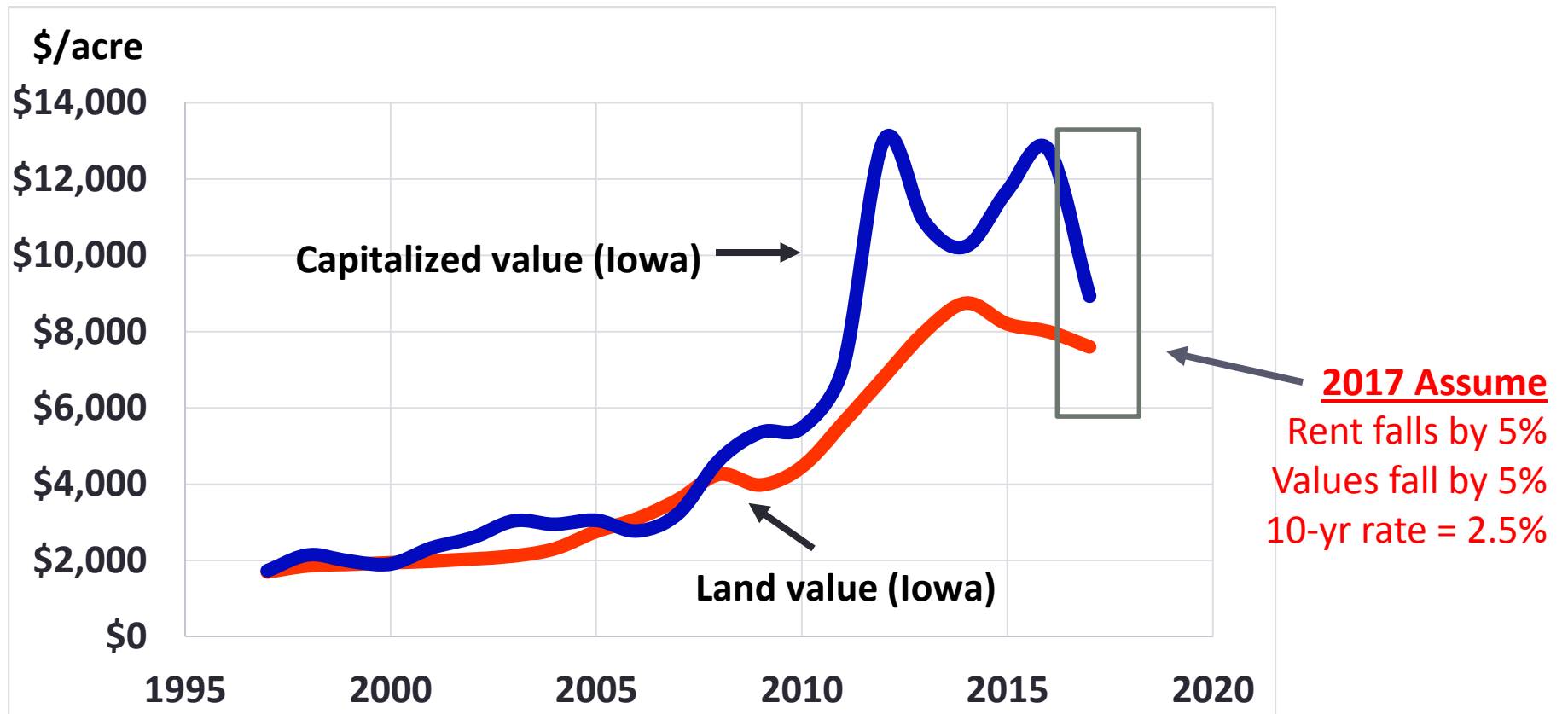
# Capitalized cash rent value < land value in 1980



Data: USDA-NASS, Federal Reserve Board of Governors.



# Today, capitalized values > observed land values



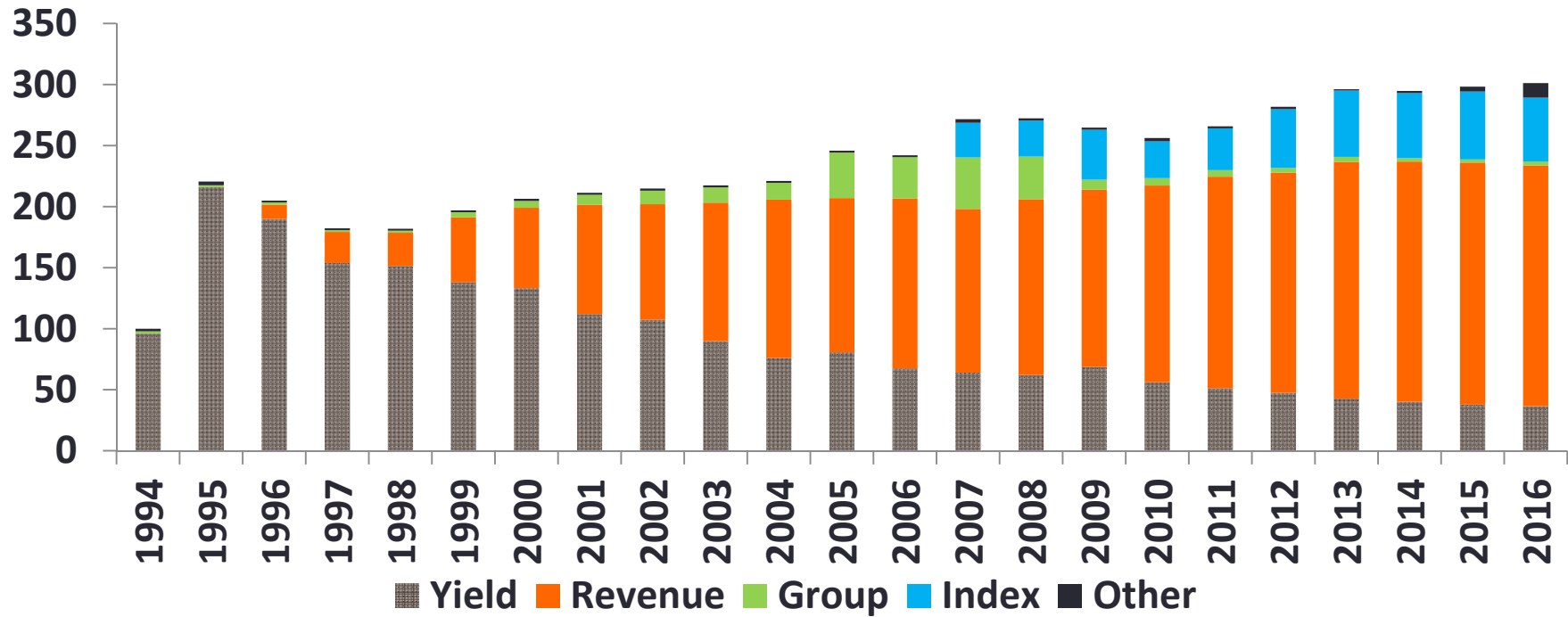
Data: USDA-NASS.

## Farm Bill programs are working with mixed results

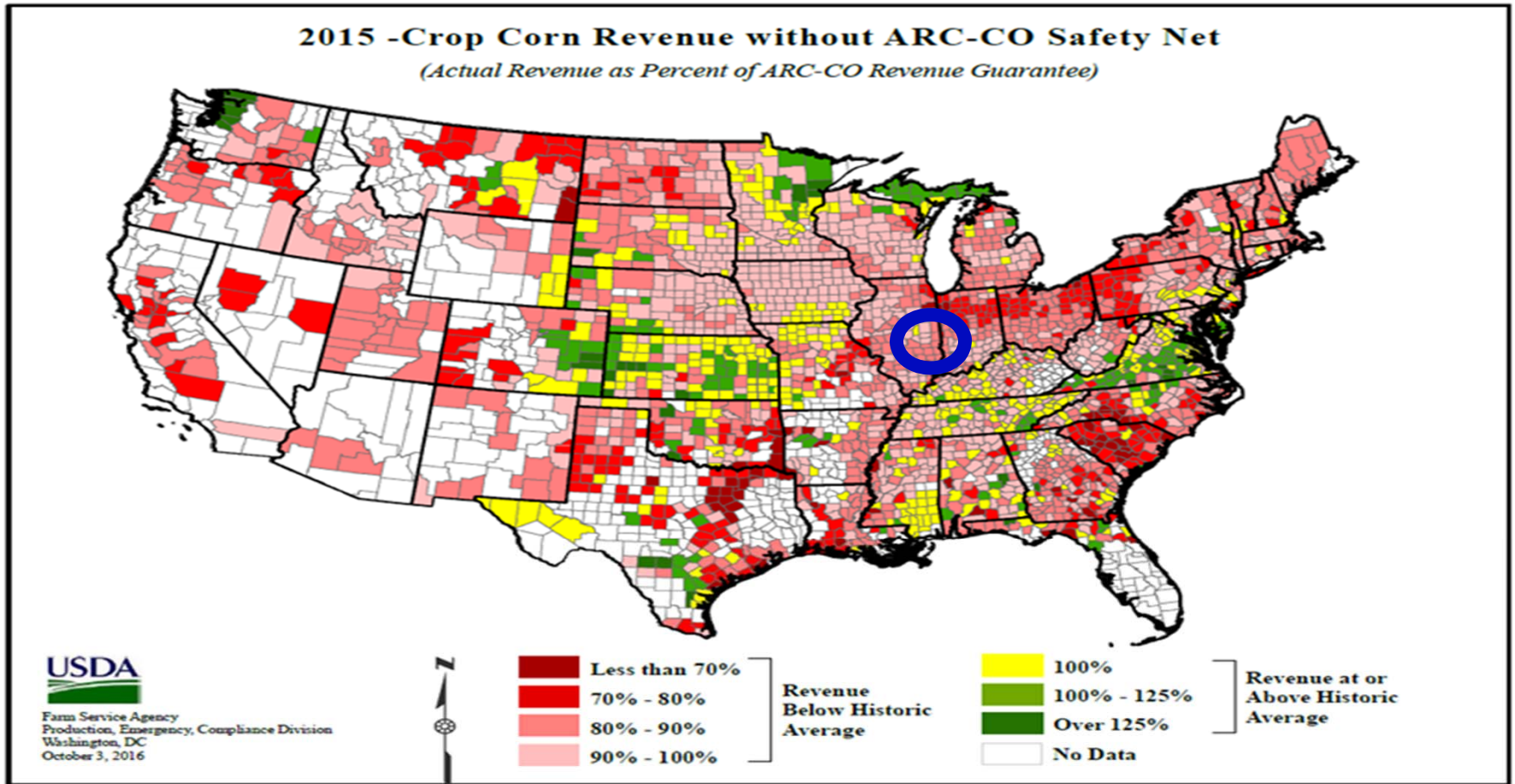


## Revenue insurance now > 70% of liabilities

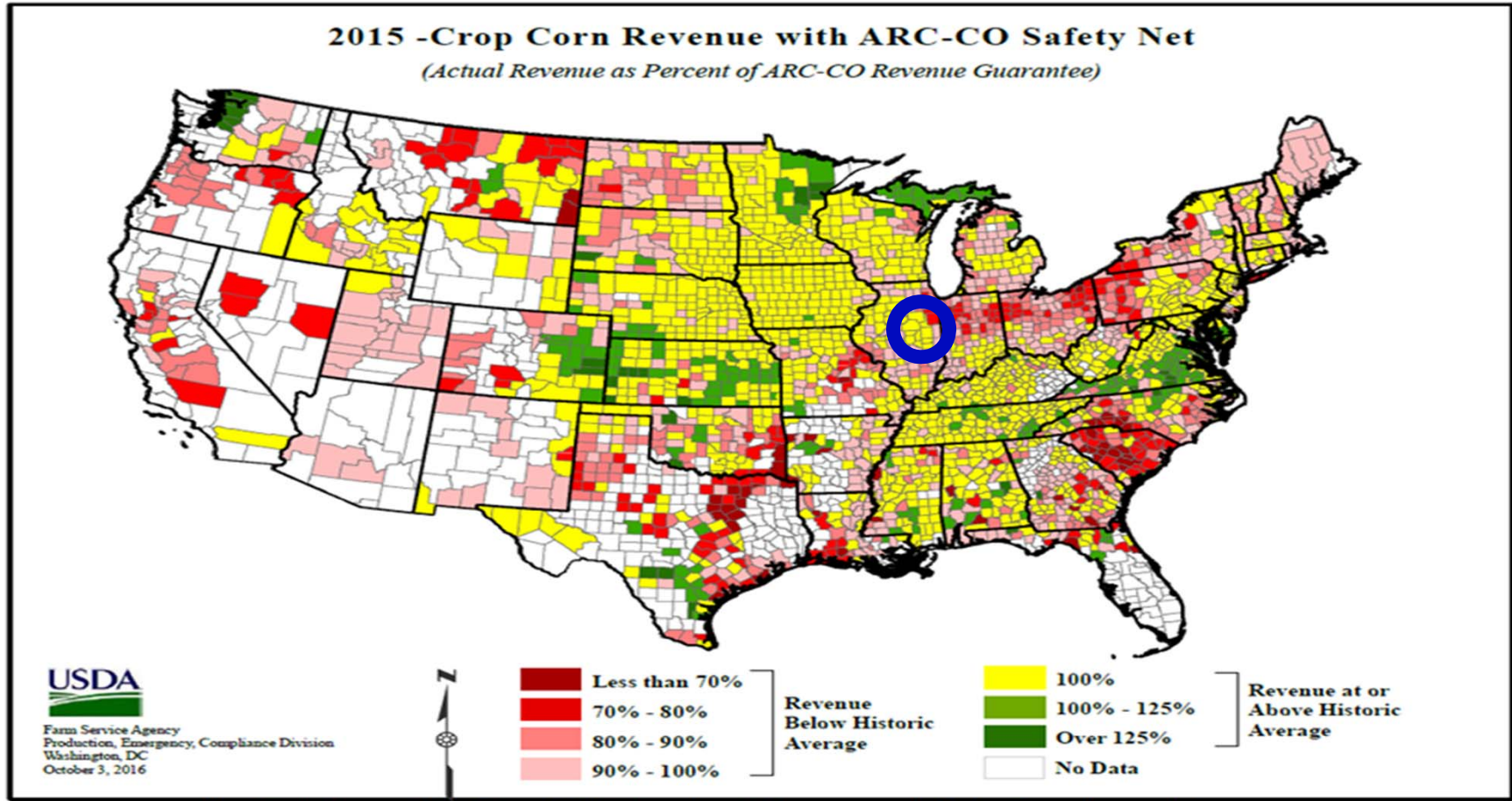
Million Acres Insured



Source: USDA-ERS using RMA data.



Map includes all and non-irrigated yields. Map is intended for Farm Service Agency (FSA) business purposes only. Map depicted serves only as a general reference map.



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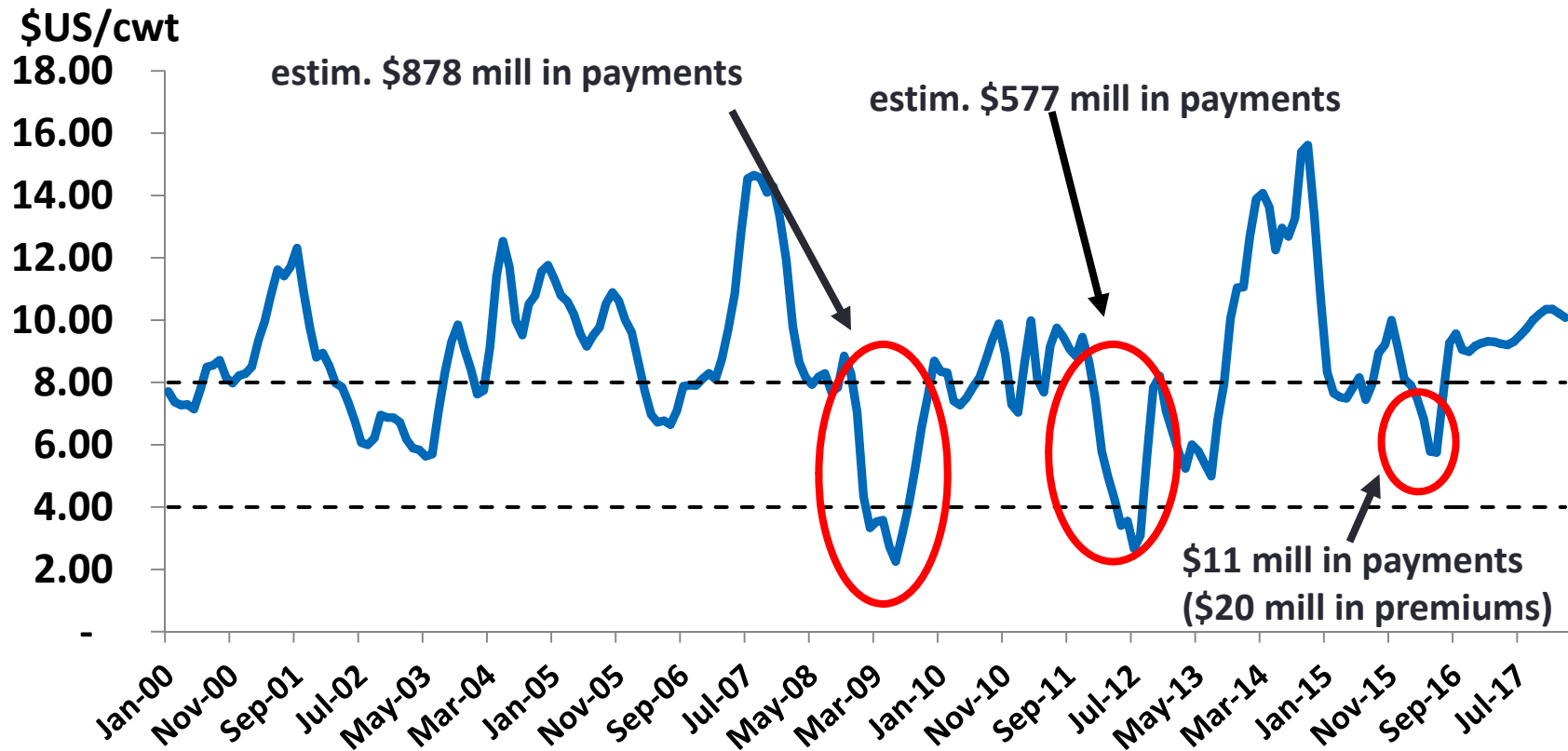


**2015 example: Central Illinois farmer with corn base enrolled in ARC**

	Rev guarantee	Yield bu/acre	Price \$/bu	Actual rev \$/acre	Payment \$/acre
Piatt	\$769	221	\$3.61	\$798	\$0
McLean	\$787	199	\$3.61	\$718	\$69

Data: USDA-FSA.

# Premiums for the dairy margin program > payments



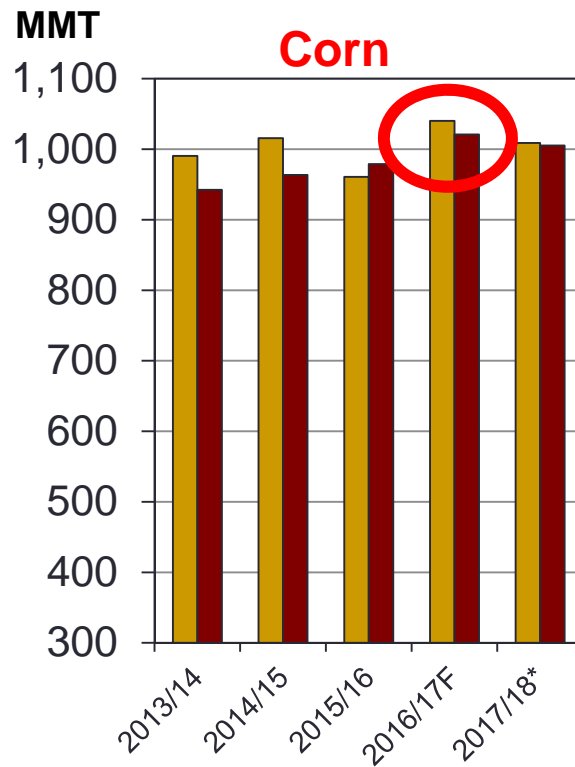
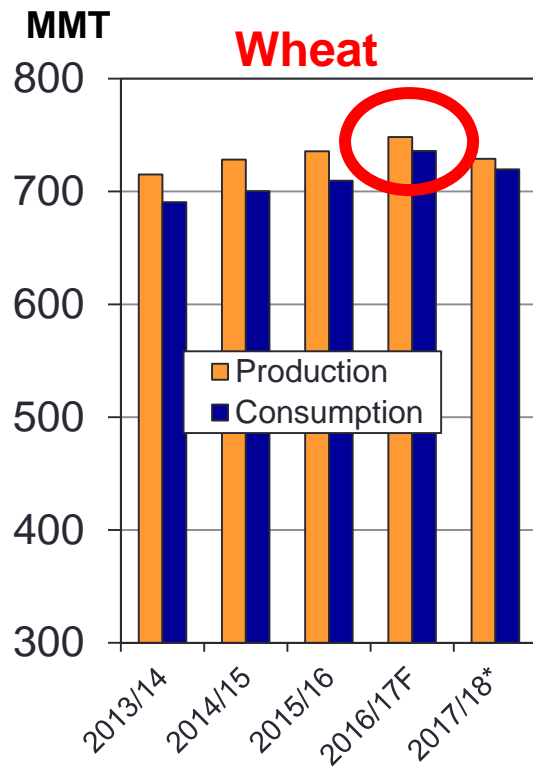
Data: USDA.

# Outlook for Crops



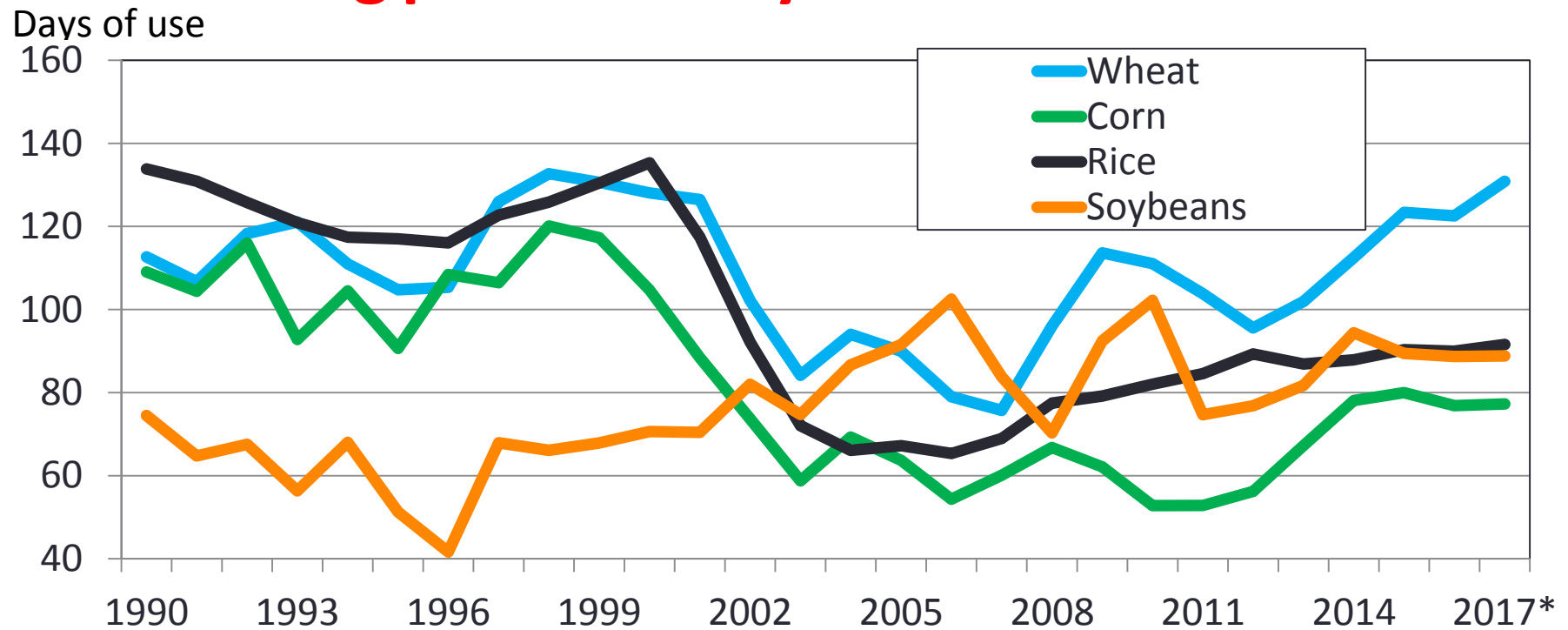


## Global 2016/17 production and consumption at record highs



Data: USDA-OCE, USDA-FAS, \*FAPRI data used for 2017/18 global consumption.

## Global ending stocks remain above 2002/03, moderating price volatility



Data: USDA-OCE, USDA-FAS, \*FAPRI data used for 2017/18 global consumption.

## Prices expected to edge up into 2017/18

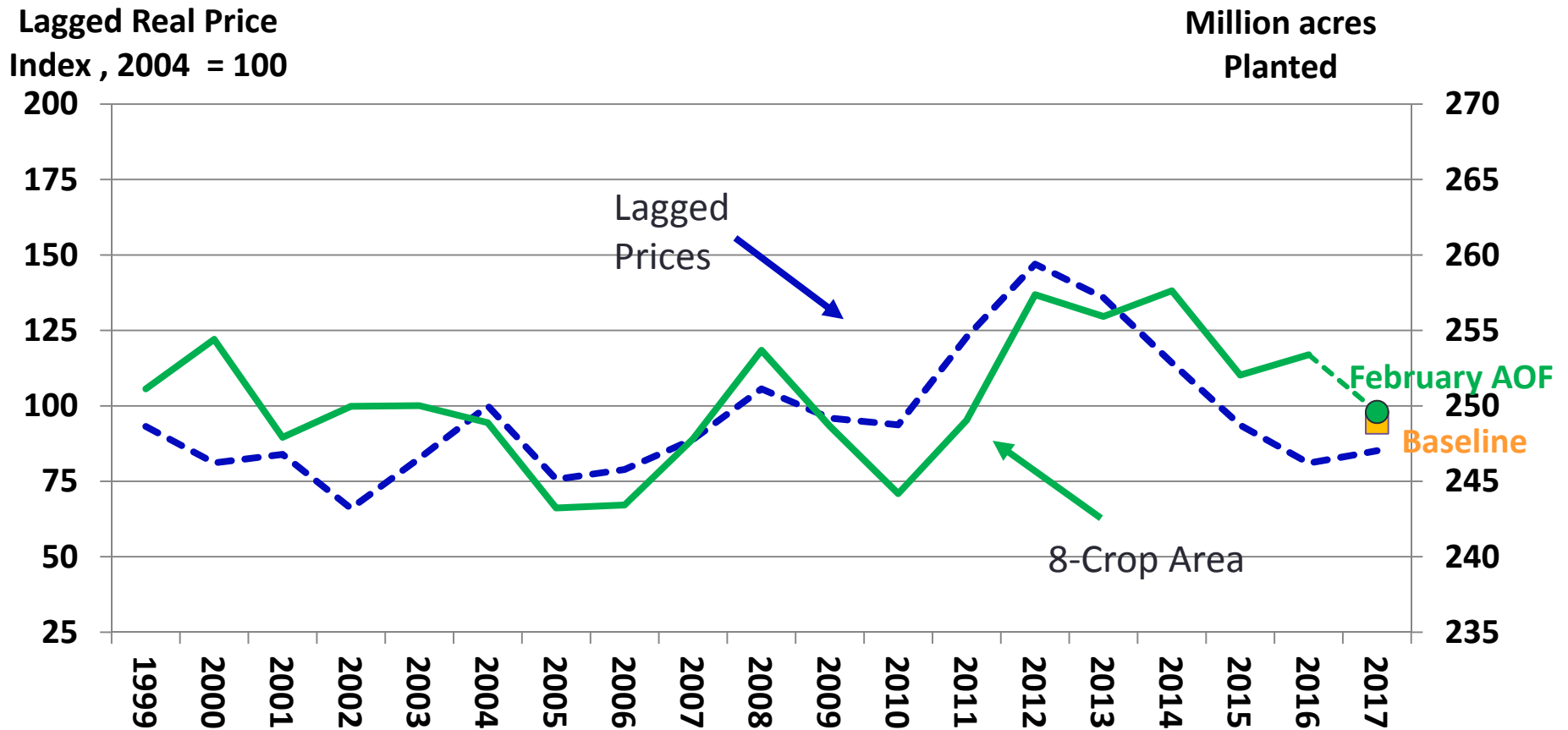
Crop	2012	2013	2014	2015	2016	2017F	%Δ
Wheat (\$/bu)	<b>7.77</b>	6.87	5.99	4.89	3.85	4.30	11.7
Corn (\$/bu)	<b>6.89</b>	4.46	3.70	3.61	3.40	3.50	2.9
Soybeans (\$/bu)	<b>14.40</b>	13.00	10.10	8.95	9.50	9.60	1.1
Cotton (cents/lb)	72.50	77.90	61.30	61.20	69.00	65.00	-5.8
All Rice (\$/cwt)	15.10	16.30	13.40	12.20	10.50	10.70	1.9

Data: USDA-OCE.

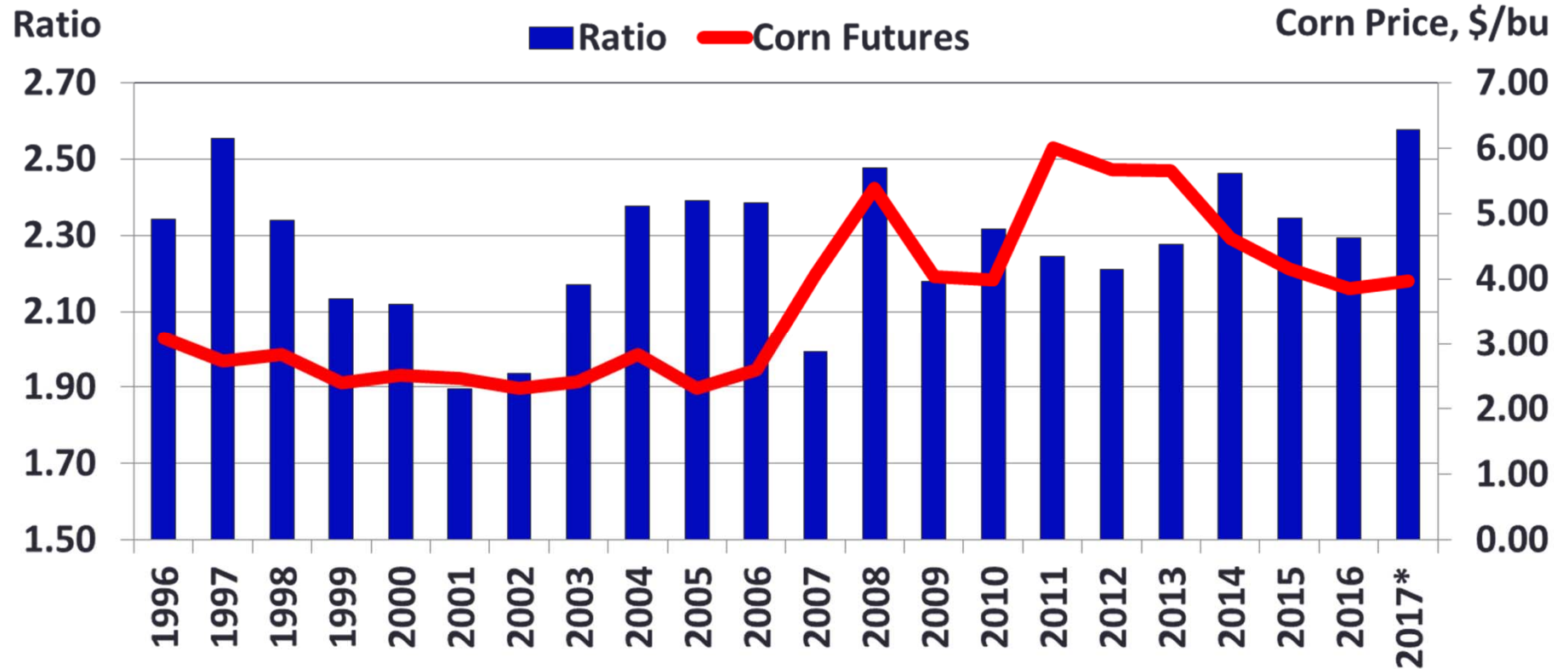
Red denotes record high.

Data: USDA-OCE.

# 8-Crop Planting and Lagged Prices



# New Crop Soybean-to-Corn Ratio During February



Data: USDA-OCE.

## Cropland area down again from last year

Crop (mil. acres)	2012	2013	2014	2015	2016	2017F	%Δ
Corn	97.3	95.4	90.6	88.0	94.0	90.0	-4.3%
Soybeans	77.2	76.8	83.3	82.7	83.4	88.0	5.5%
Wheat	55.3	56.2	56.8	55.0	50.2	46.0	-8.3%
All cotton	12.3	10.4	11.0	8.6	10.1	11.5	14.2%
Other feedgrains	12.6	14.6	12.9	15.2	12.6	11.7	-7.1%
Rice	2.7	2.5	3.0	2.6	3.2	2.6	-17.4%
<b>Total 8 crops</b>	<b>257.4</b>	<b>255.9</b>	<b>257.6</b>	<b>252.1</b>	<b>253.4</b>	<b>249.8</b>	<b>-1.4%</b>
<b>CRP</b>	<b>29.5</b>	<b>26.8</b>	<b>25.5</b>	<b>24.2</b>	<b>23.8</b>	<b>23.5</b>	<b>-1.3%</b>
<b>8 crops + CRP</b>	<b>286.9</b>	<b>282.7</b>	<b>283.1</b>	<b>276.3</b>	<b>277.2</b>	<b>273.3</b>	<b>-1.7%</b>

Source: USDA-OCE. All cotton, includes both upland and ELS cotton.

# Outlook for Livestock and Dairy



## Beef, pork, poultry, and milk production higher in 2016 and 2017

Item	2012	2013	2014	2015	2016	2017F	%Δ
Billion pounds							
Beef	25.9	25.7	24.3	23.7	25.2	26.0	3.1
Pork	23.3	23.2	22.8	24.5	24.9	26.2	4.9
Broilers	37.0	37.8	38.6	40.0	40.7	41.5	2.1
<b>Total<sup>1</sup></b>	<b>93.0</b>	<b>93.3</b>	<b>92.2</b>	<b>94.6</b>	<b>97.6</b>	<b>100.6</b>	<b>3.1</b>
Billion pounds							
Milk	200.6	201.2	206.1	208.6	212.5	217.4	2.3

Data in red denote record levels.

<sup>1</sup> Total red meat and poultry

Source: USDA-OCE.



## Cattle and hog prices to come down in 2016 and 2017, but broilers and dairy turn up in 2017

Item	2012	2013	2014	2015	2016	2017F	%Δ
	Dollars per cwt						
Steers	122.86	125.89	154.56	148.12	120.86	112.00	-7.3
Hogs	60.88	64.05	76.03	50.23	46.16	43.50	-5.8
Broilers	86.6	99.7	104.9	90.5	84.3	84.8	0.5
Milk	18.52	20.05	23.97	17.12	16.24	18.05	11.1

Prices in red denote record levels.

Source: USDA-OCE.

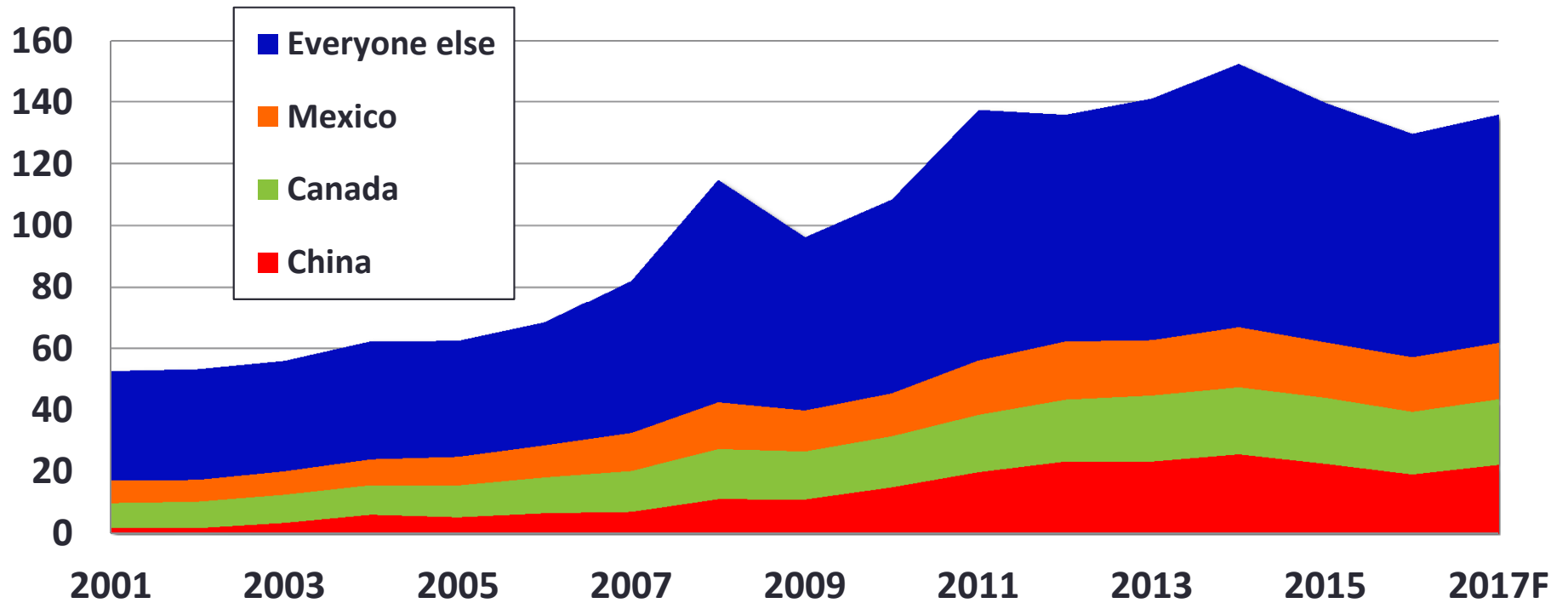


[http://www.chinadaily.com.cn/business/2015-09/26/content\\_21987498.htm](http://www.chinadaily.com.cn/business/2015-09/26/content_21987498.htm)

**Marketing**

## U.S. Agricultural exports dominated by top three

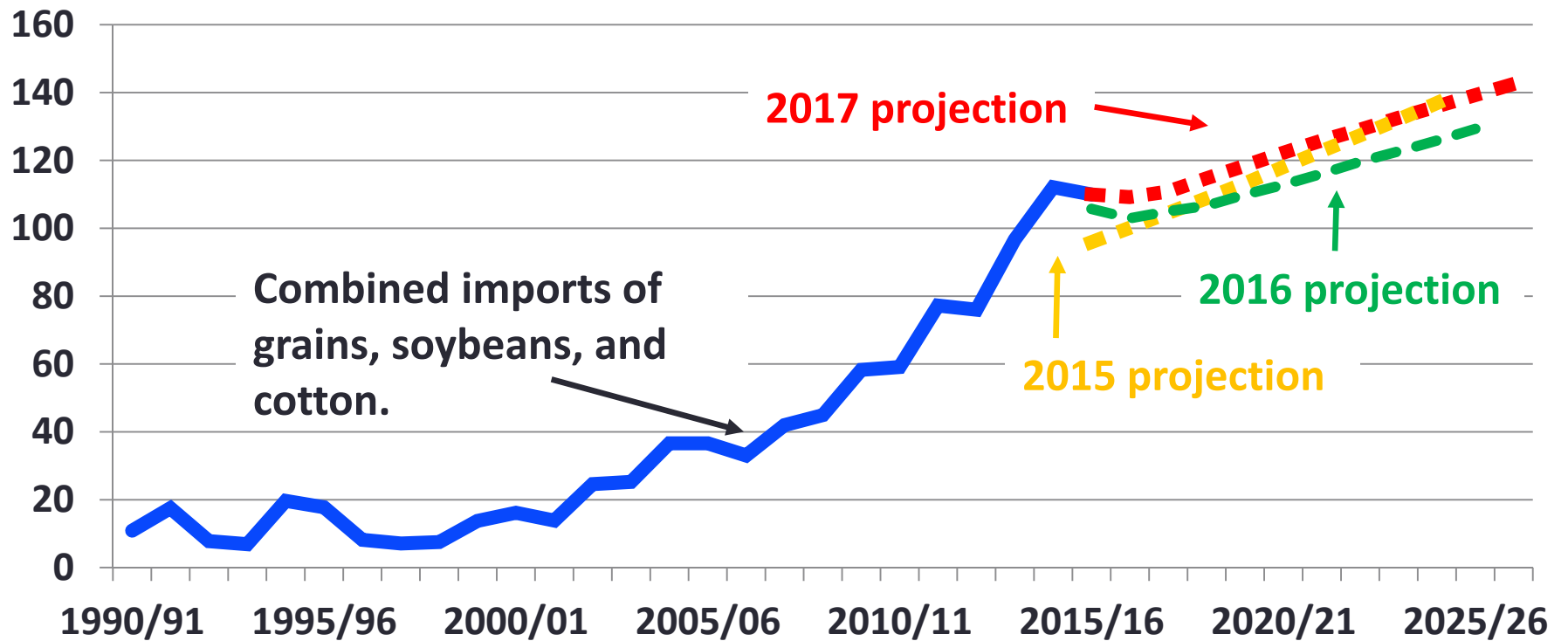
Billion dollars



Data: USDA.

# China imports to rise boosted by soybeans

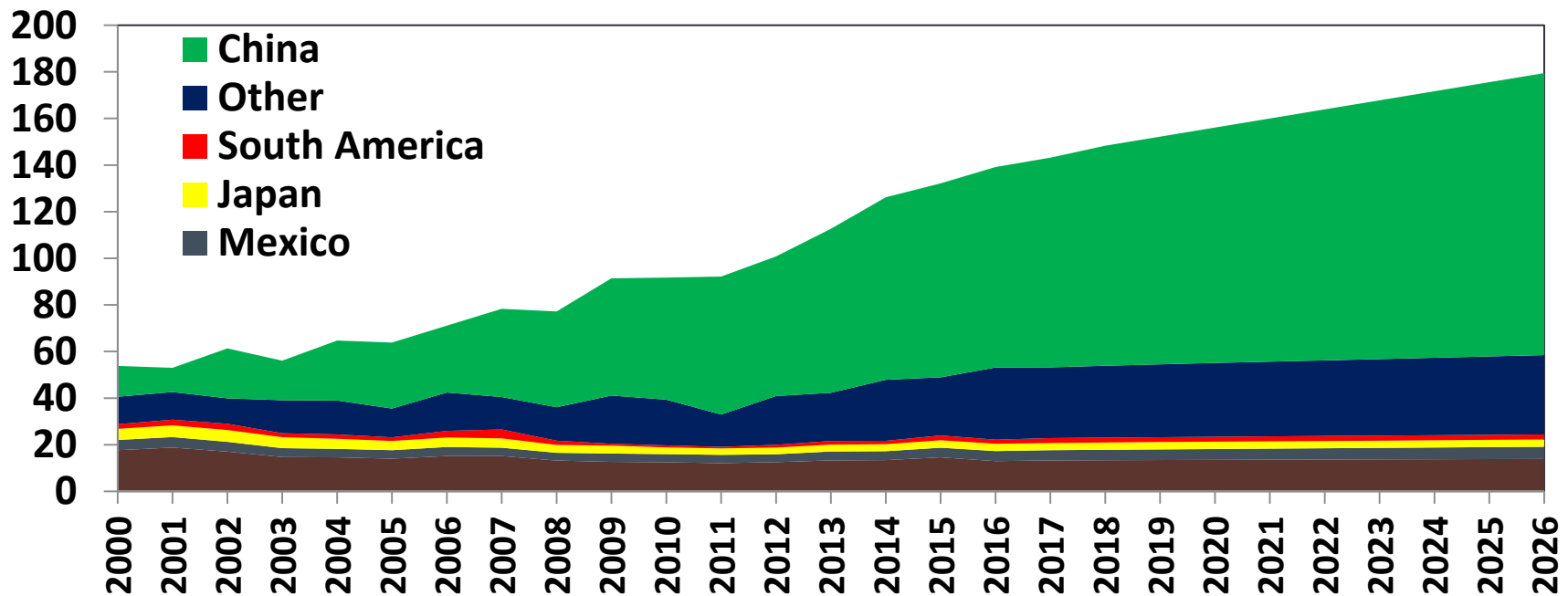
Million metric tons



Data: USDA-OCE.

## Continued growth in China soybean imports expected

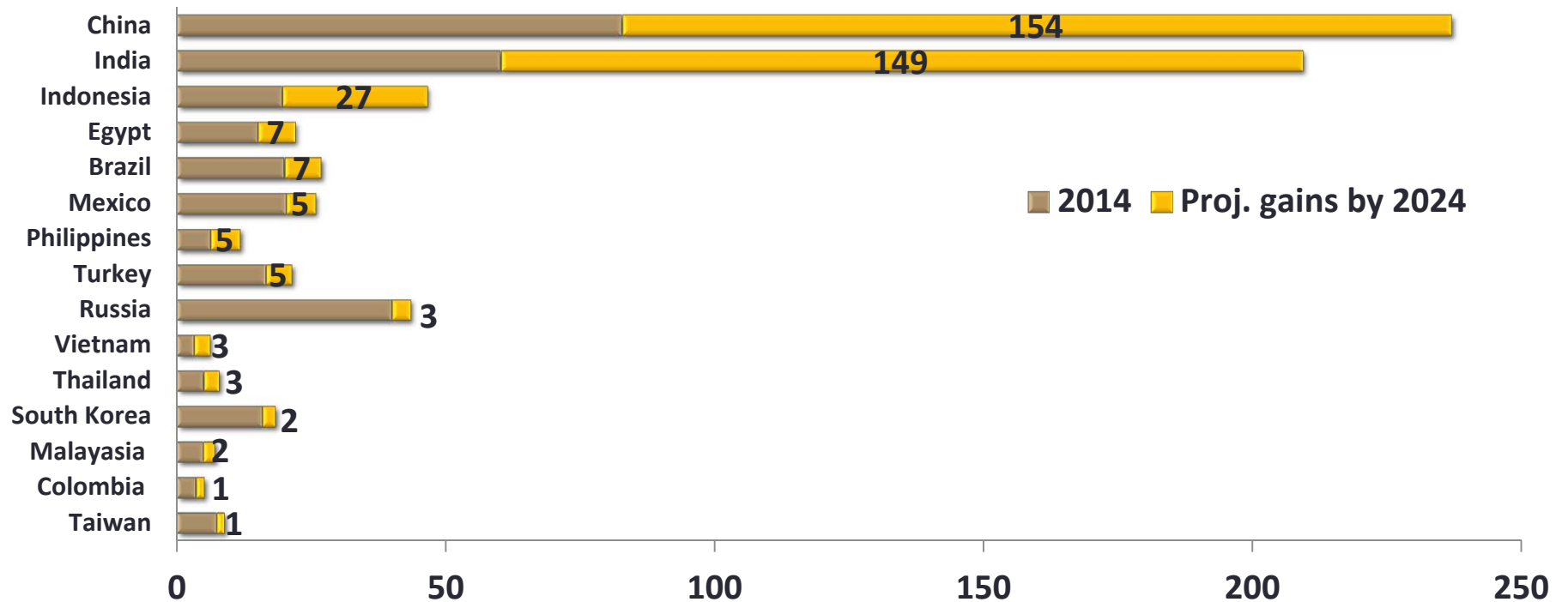
**Global Soybean Imports**  
Million Metric Tons



Data: USDA.

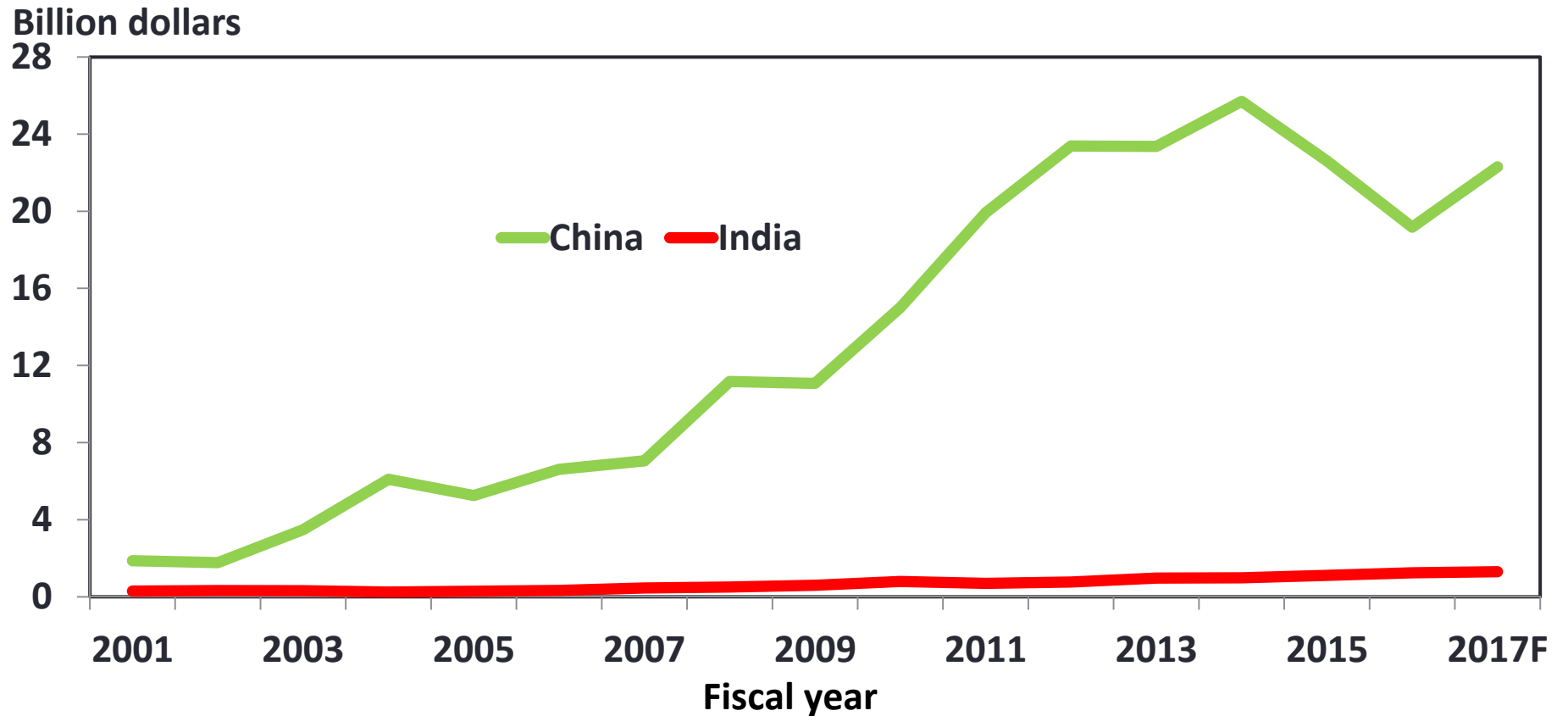
## “Middle Class” grows 119% From 2014 Levels

Million Households w/ Real PPP incomes > than \$20,000



Source: Global Insight’s Global Consumer Markets data as analyzed by USDA-FAS.

## U.S. Ag Exports to China and India

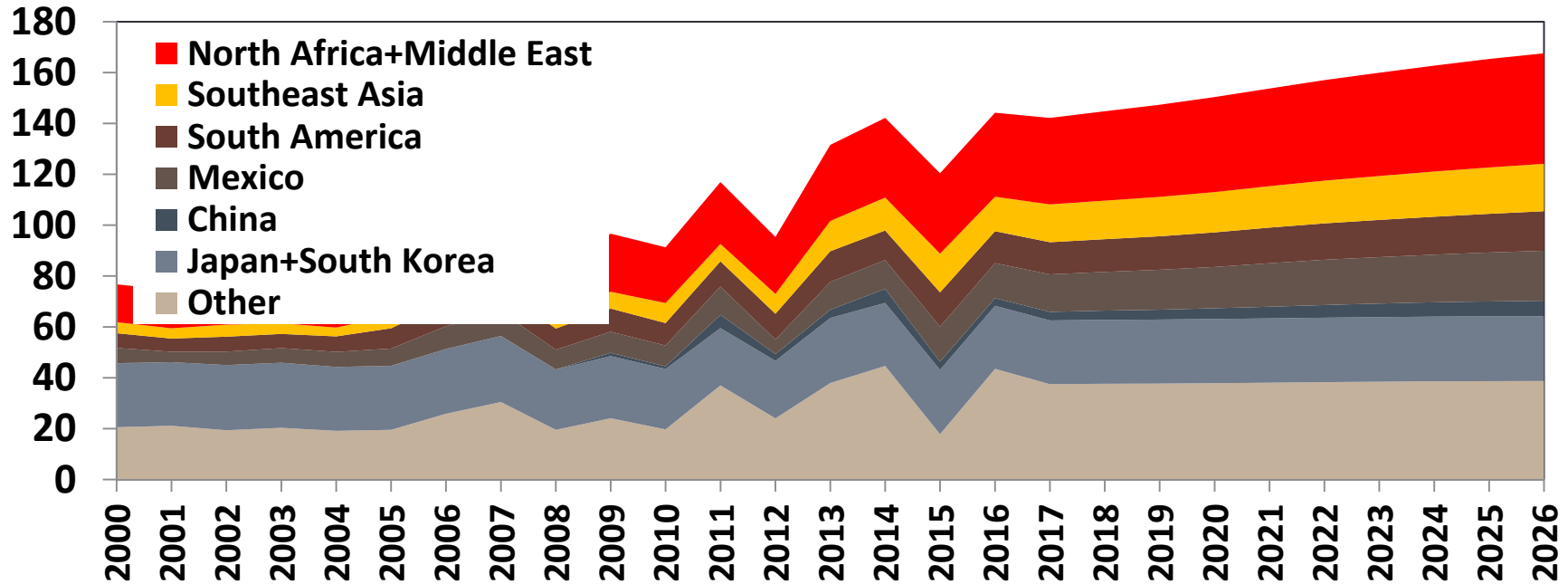


Source: USDA-FAS.

# Corn trade driven by growth in North Africa, Middle East and Southeast Asia

## Global Corn Imports

Million Metric Tons



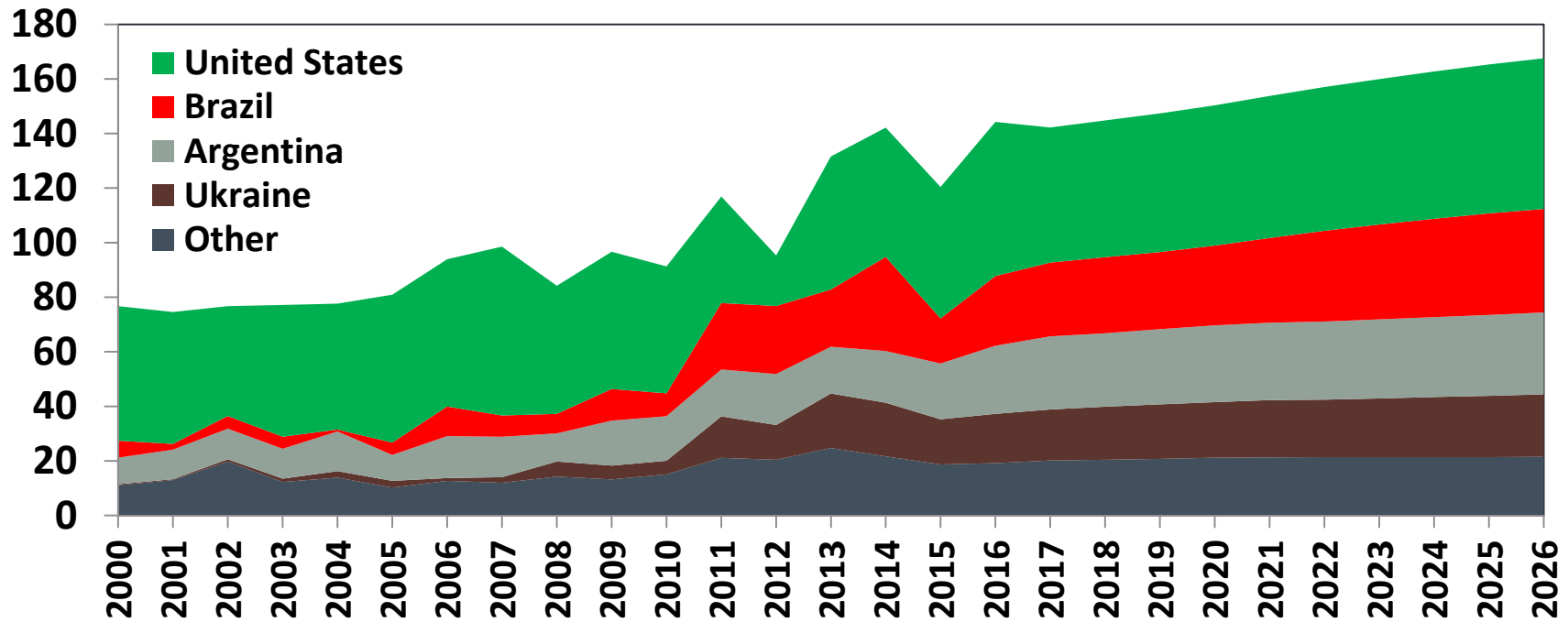
Data: USDA.



## U.S. remains #1 corn exporter

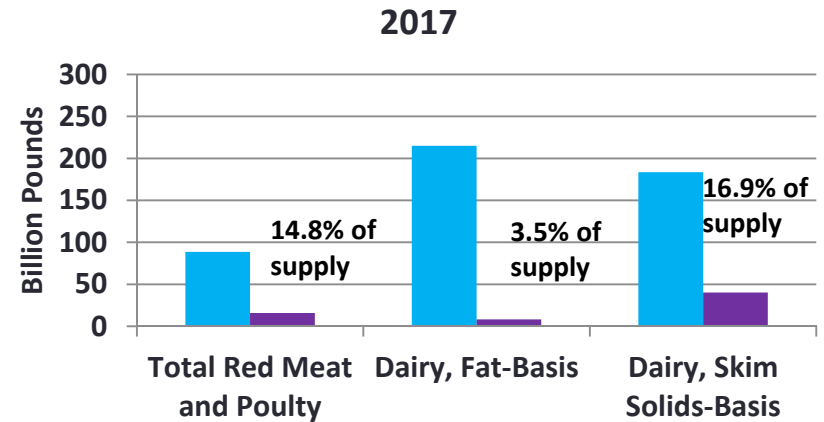
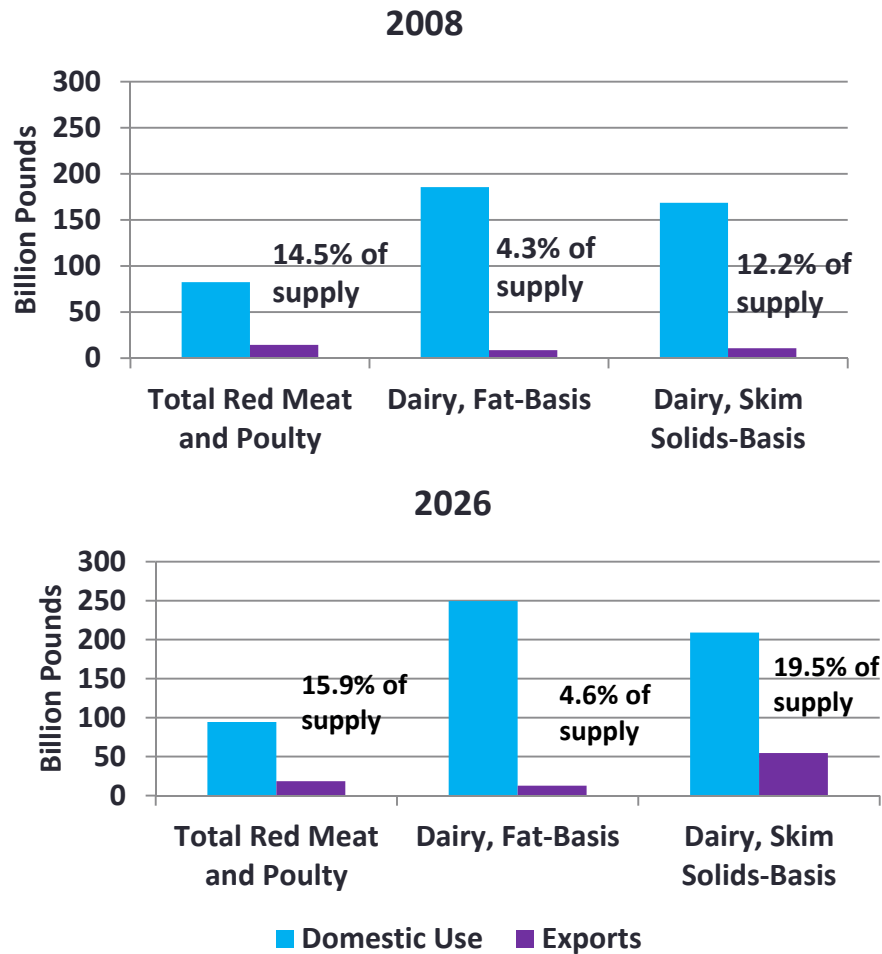
### Global Corn Exports

Million Metric Tons



Data: USDA.

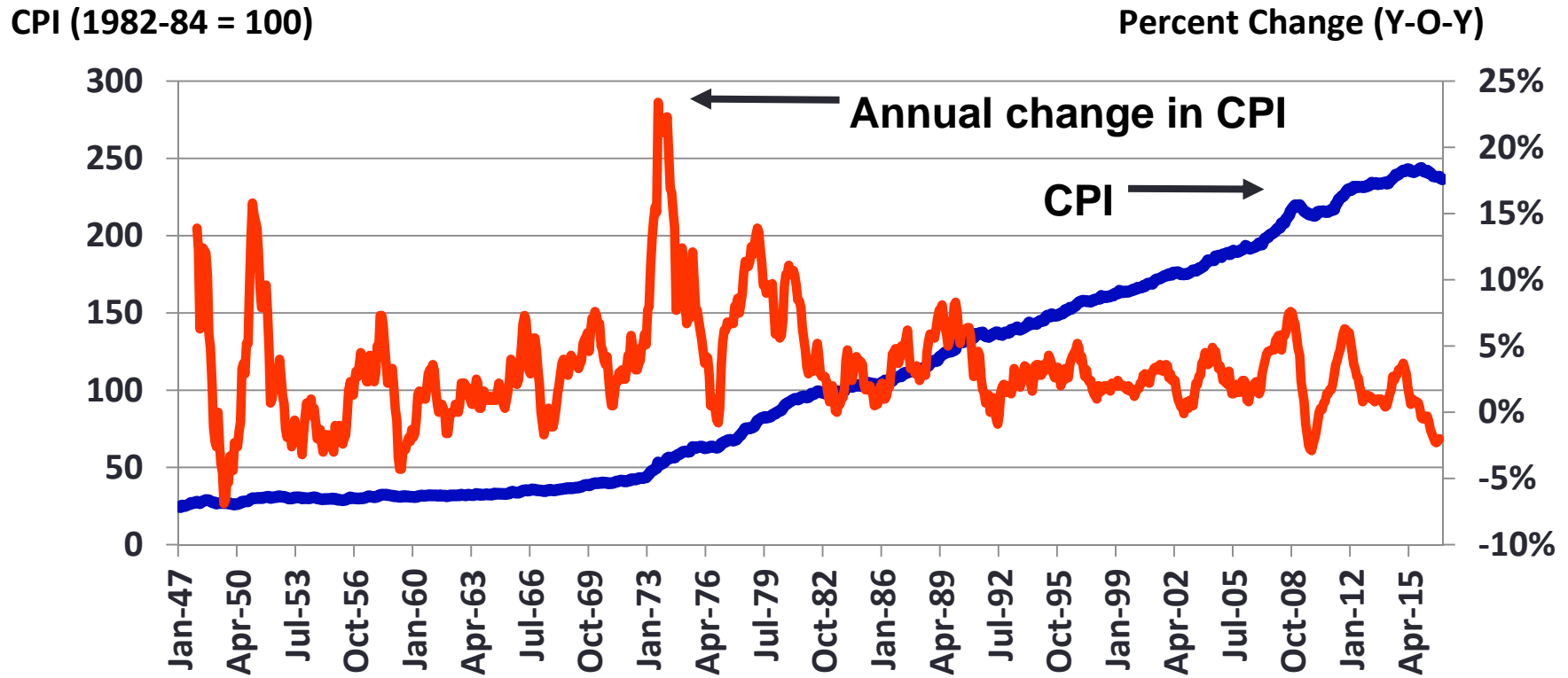
## Exports share of use grows over time



# Outlook for Food Prices

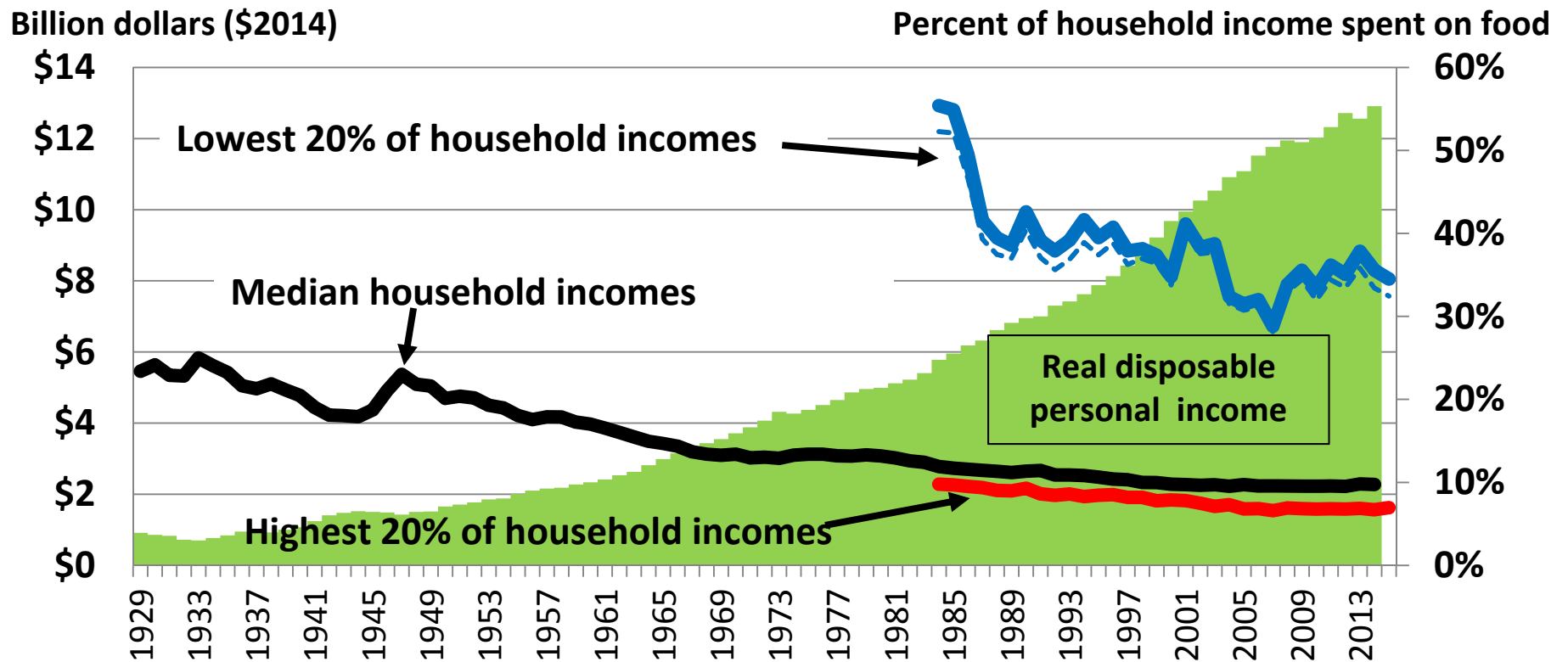


# Longest sustained fall in food prices in 60 years



Data: BLS.

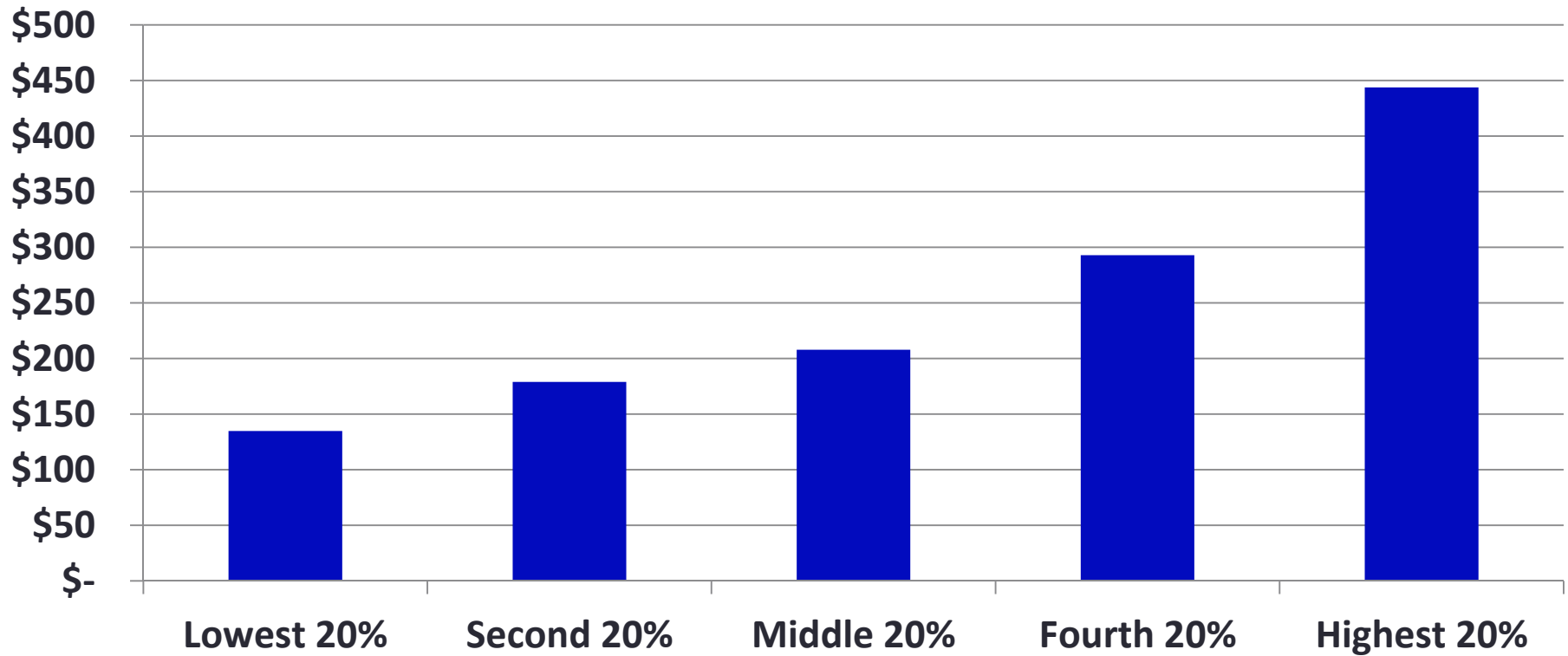
## Low income household spending 35% on food



Data: USDA-ERS, BLS.

# Top 40 percent of households purchase nearly 60 % of food sold

Million dollars



Data: BLS.

## Conclusion

1. Net farm income is flat and likely to remain flat until stocks-to-use starts to fall.
2. Premium of cash rents to land values likely to close with lower rents and values.
3. The soybean:corn ratio suggests more acres of soybeans and fewer to corn. Overall planted area is likely down by 3.6 million acres.
4. Record meat, poultry and dairy production will look to export markets.
5. China demand grows, while opportunities in other developing countries beckon.
6. Food inflation likely to be very low in aggregate:
  - continued marketing opportunities available to higher income households.
  - Low food prices remain important for millions of households.