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Update on US Land Values and Cash Rents

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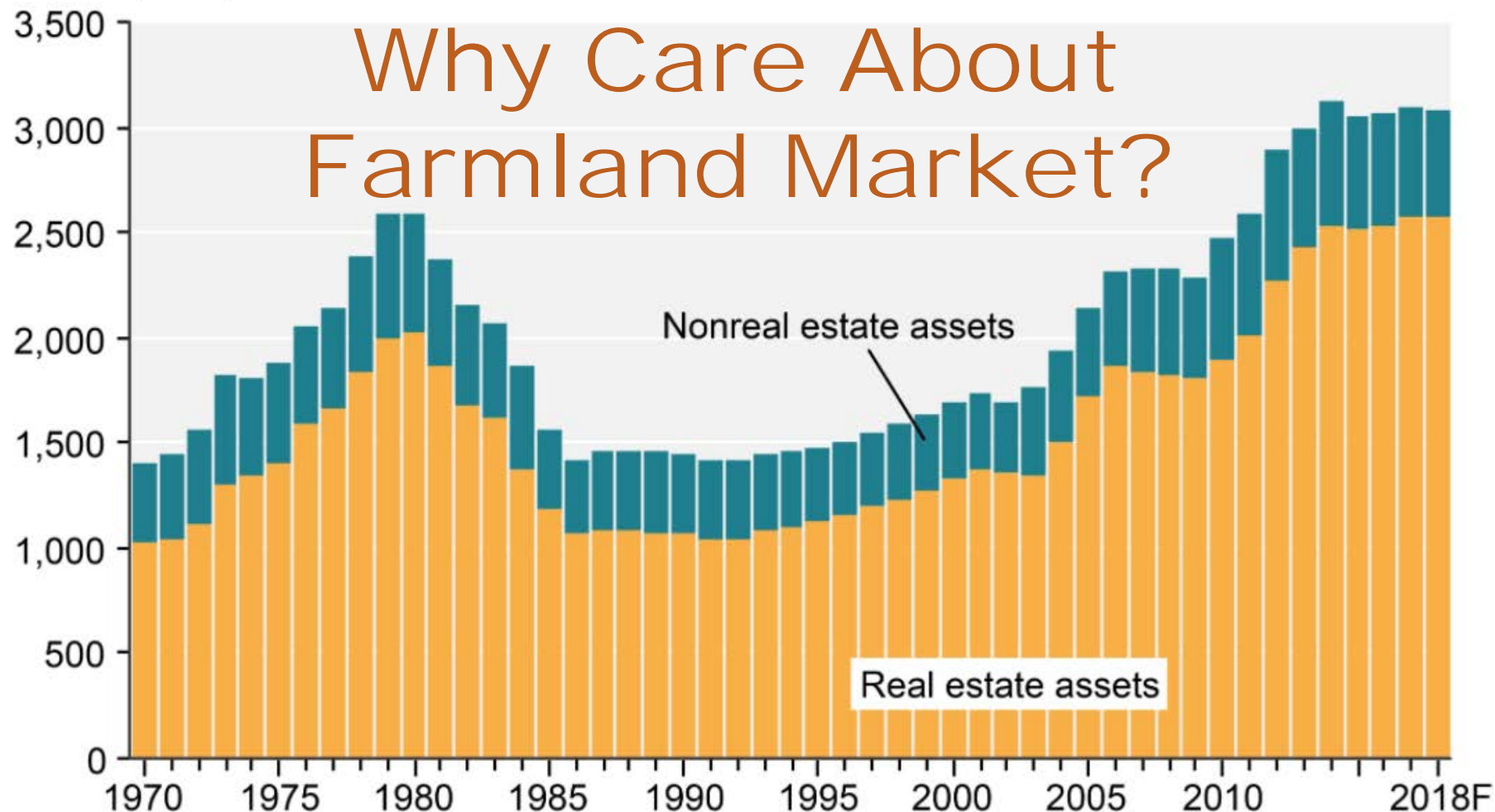
2018 USDA Agricultural Outlook Forum

Feb 22, 2018, Washington, DC

Farm sector assets, inflation adjusted, 1970-2018F

\$ billion (2018)

Why Care About Farmland Market?



Note: F = forecast. The GDP chain-type price index is used to convert the nominal (current-dollar) statistics to real (inflation adjusted) amounts (2018=100).

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

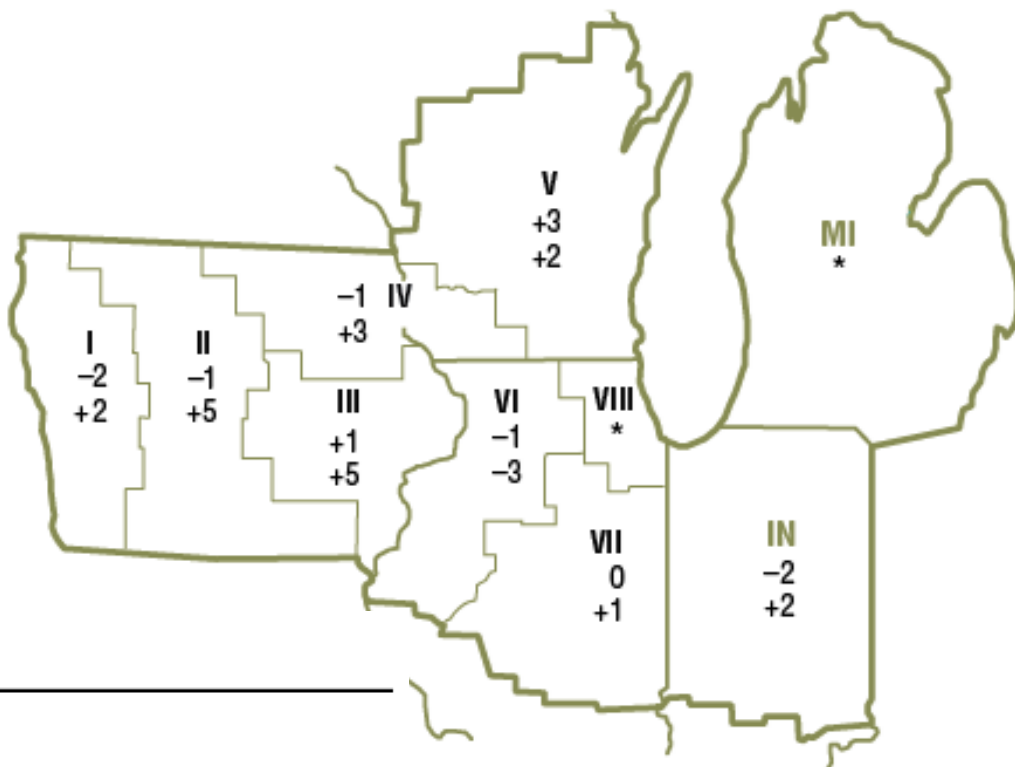
Data as of February 7, 2018.

Percent change in dollar value of "good" farmland

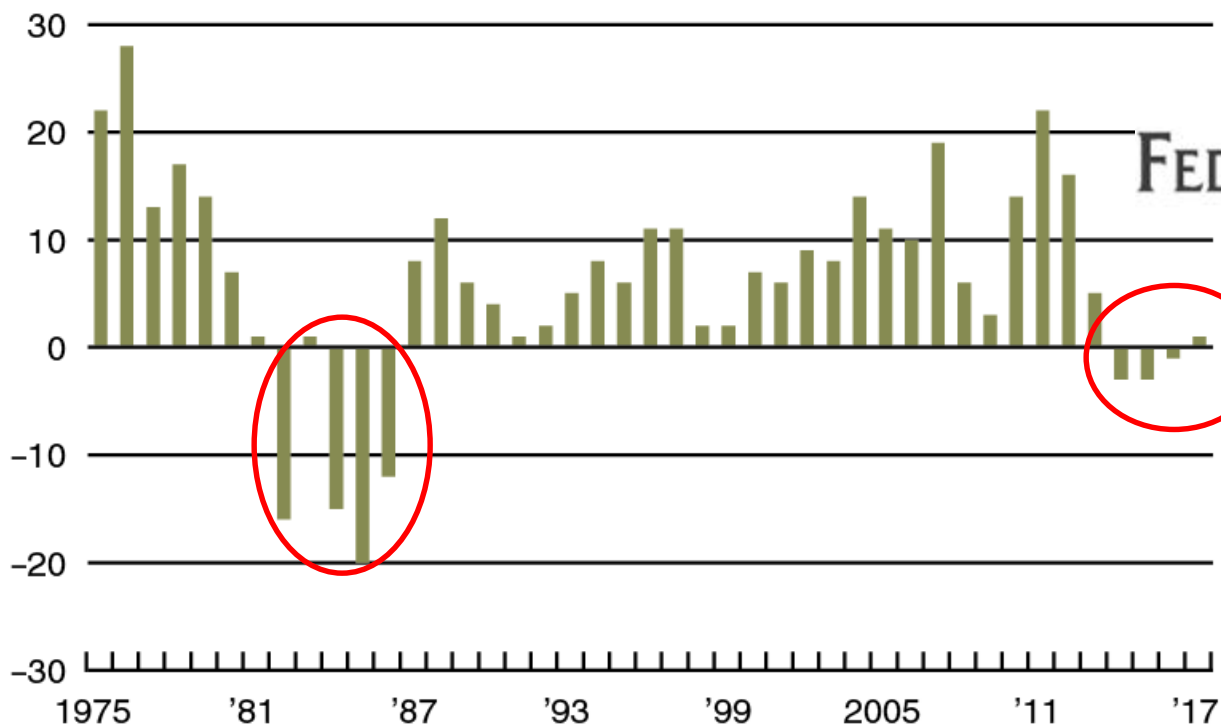
Top: October 1, 2017 to January 1, 2018

Bottom: January 1, 2017 to January 1, 2018

	October 1, 2017 to January 1, 2018	January 1, 2017 to January 1, 2018
Illinois	0	-1
Indiana	-2	+2
Iowa	0	+3
Michigan	*	*
Wisconsin	+2	+2
Seventh District	0	+1



percent



FEDERAL RESERVE BANK
of CHICAGO

AgLetter: February 2018

By David Oppedahl

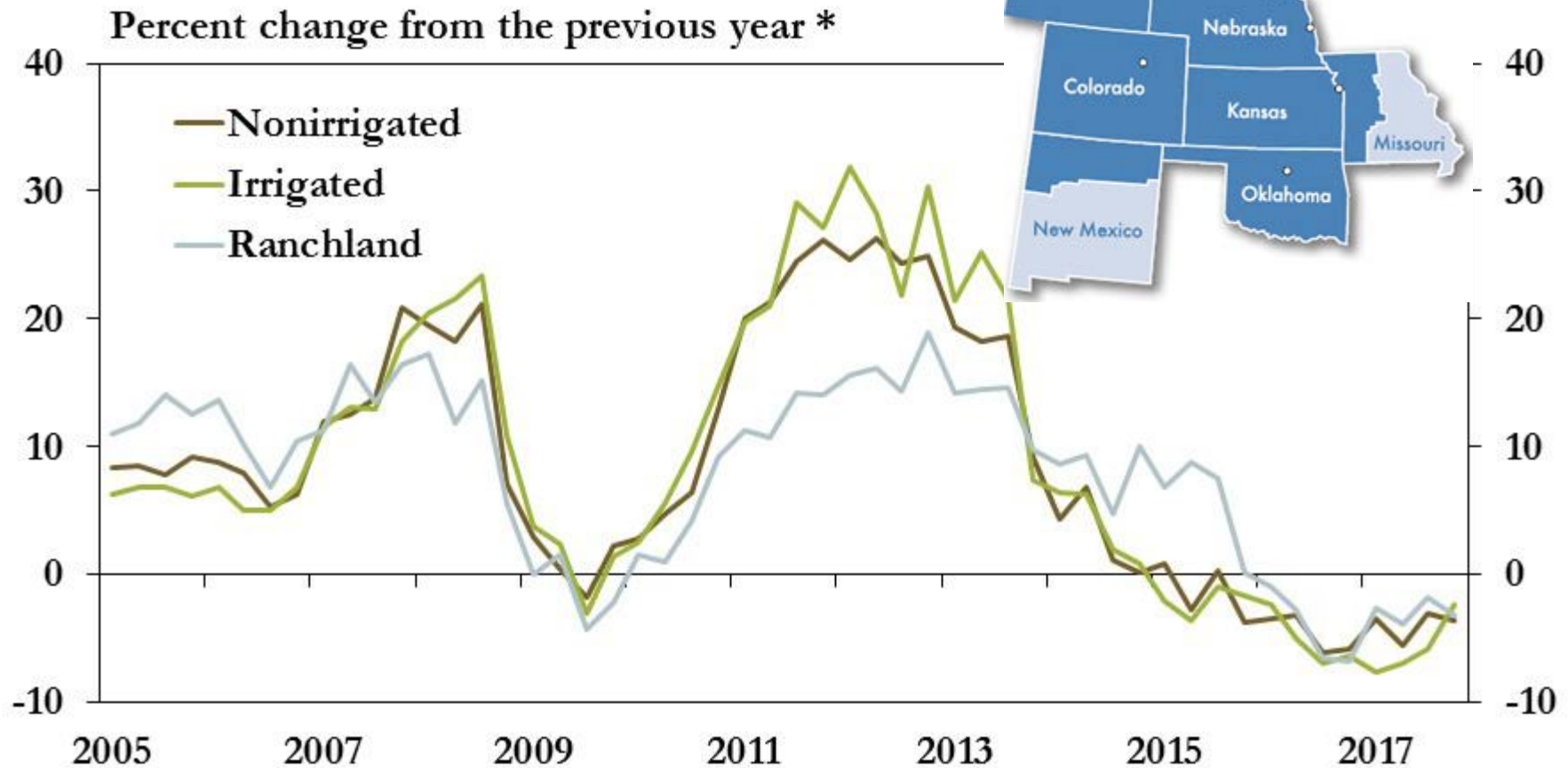
Farmland Markets Provide Support Amid a Weak Ag Economy

Chart 1: Tenth District Farmland Values



kcFED *Ag Credit* SURVEY

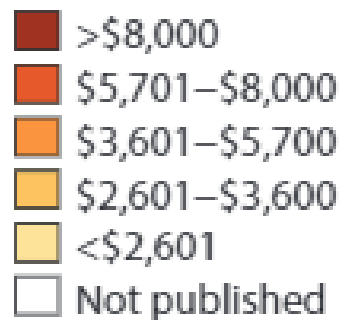
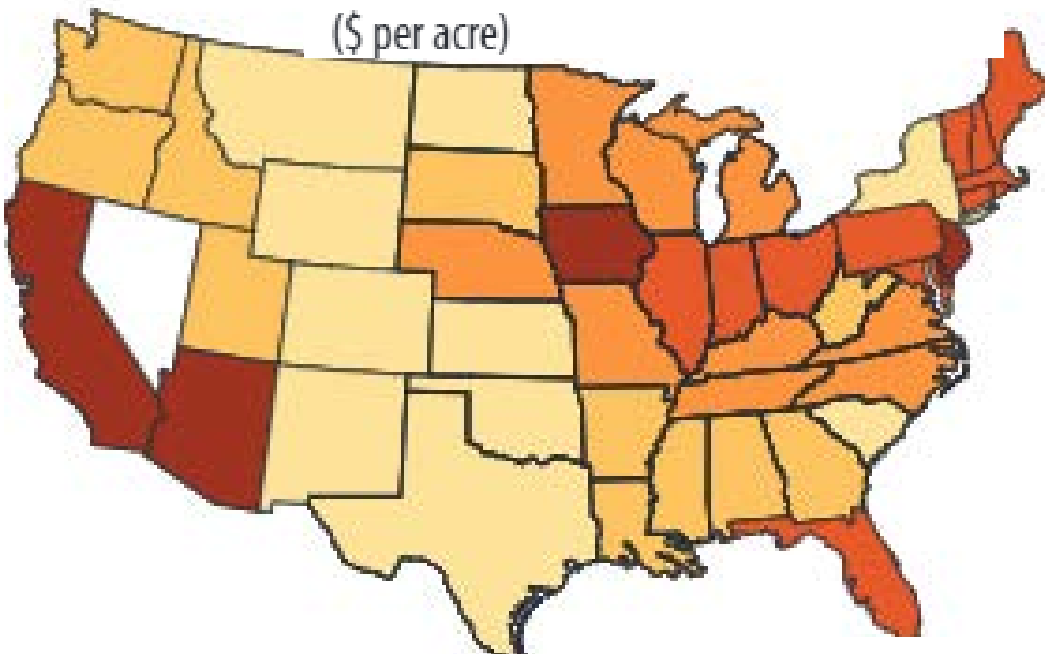
FEBRUARY 15, 2018



* Percent changes are calculated using responses only from those banks reporting in both the past and the current quarters.

Fig. 2. Cropland Value by State, 2017

(\$ per acre)

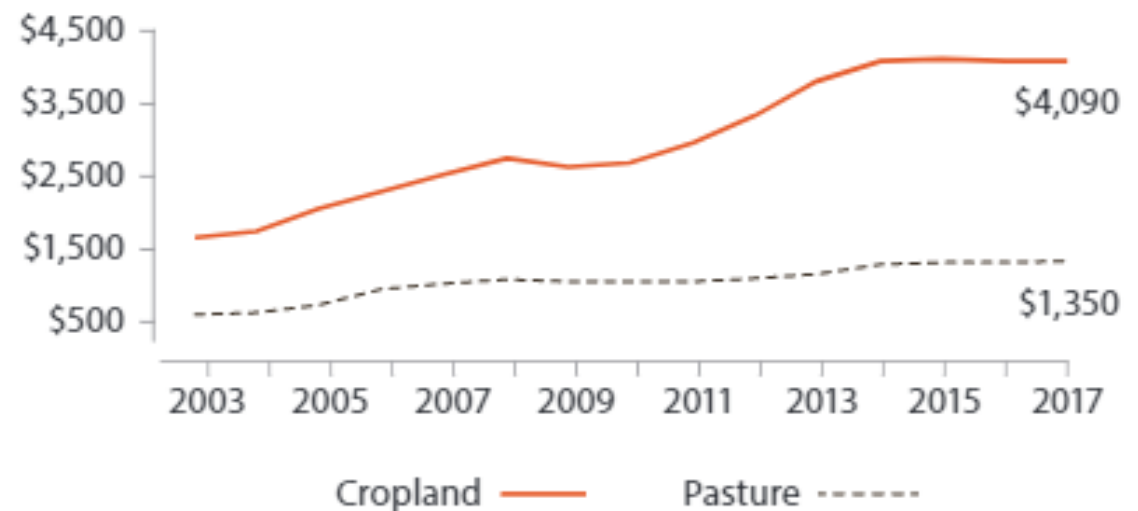


**USDA NASS June Area Survey
June 2016 to June 2017**

**Ag Real Estate Values: + 2.3%;
Cropland Values: No change;
Pasture Values: +1.5%**

Fig. 1. Value of U.S. Cropland and Pasture, 2003–2017

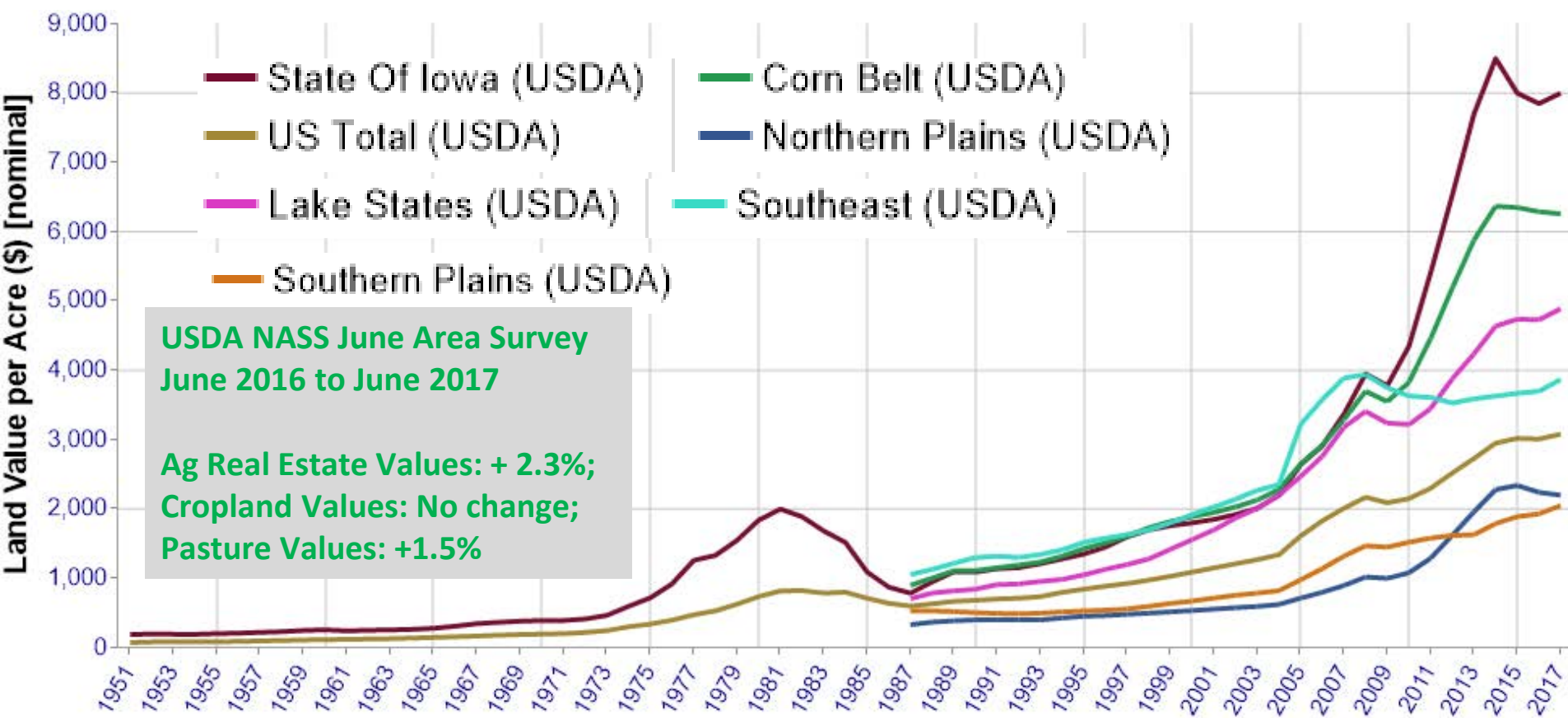
(\$ per acre)



Stabilization in all US farmland markets



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The “temporary break” in continued declines results from **limited land supply**

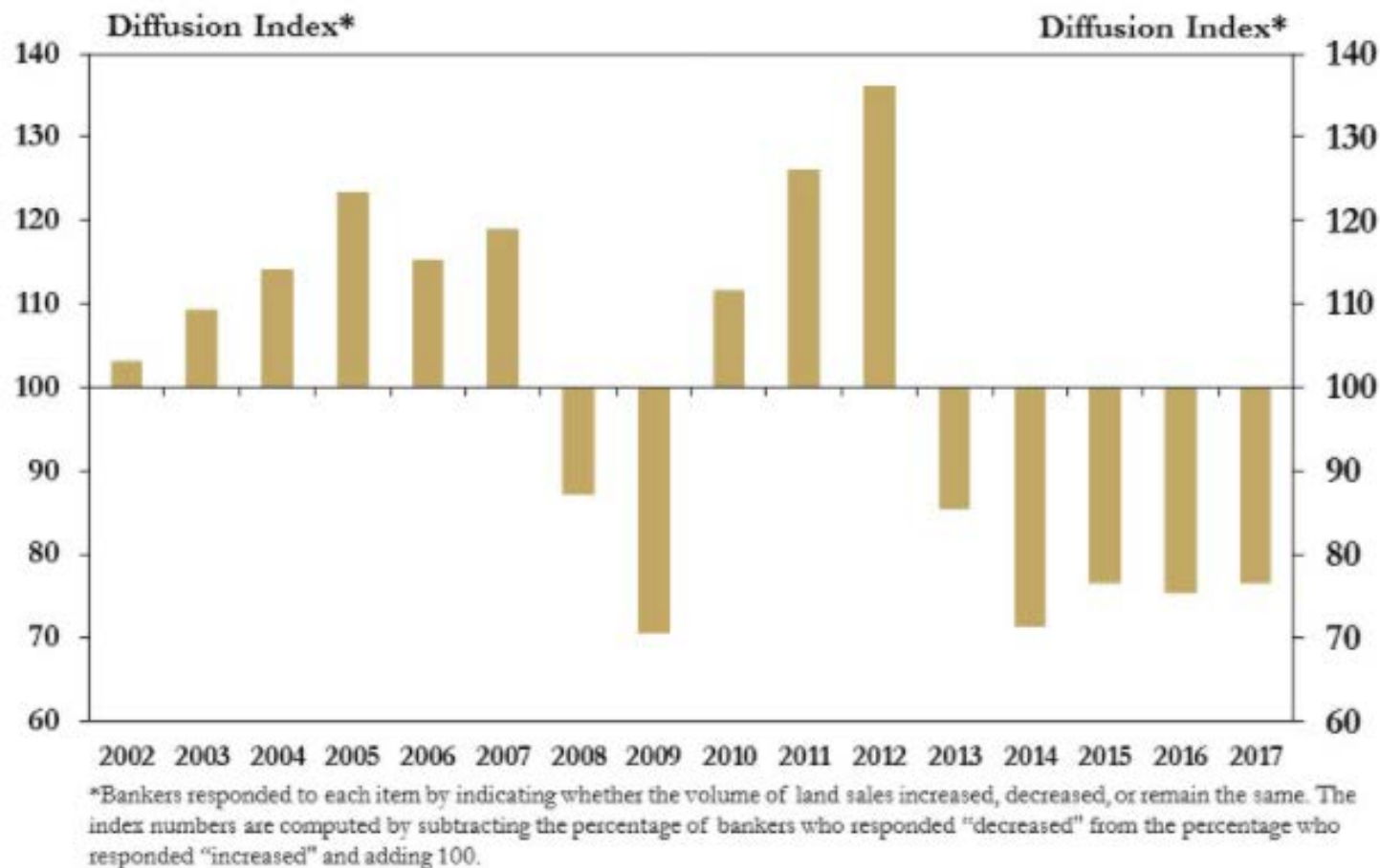


Chart 3: Volume of Farmland Sales

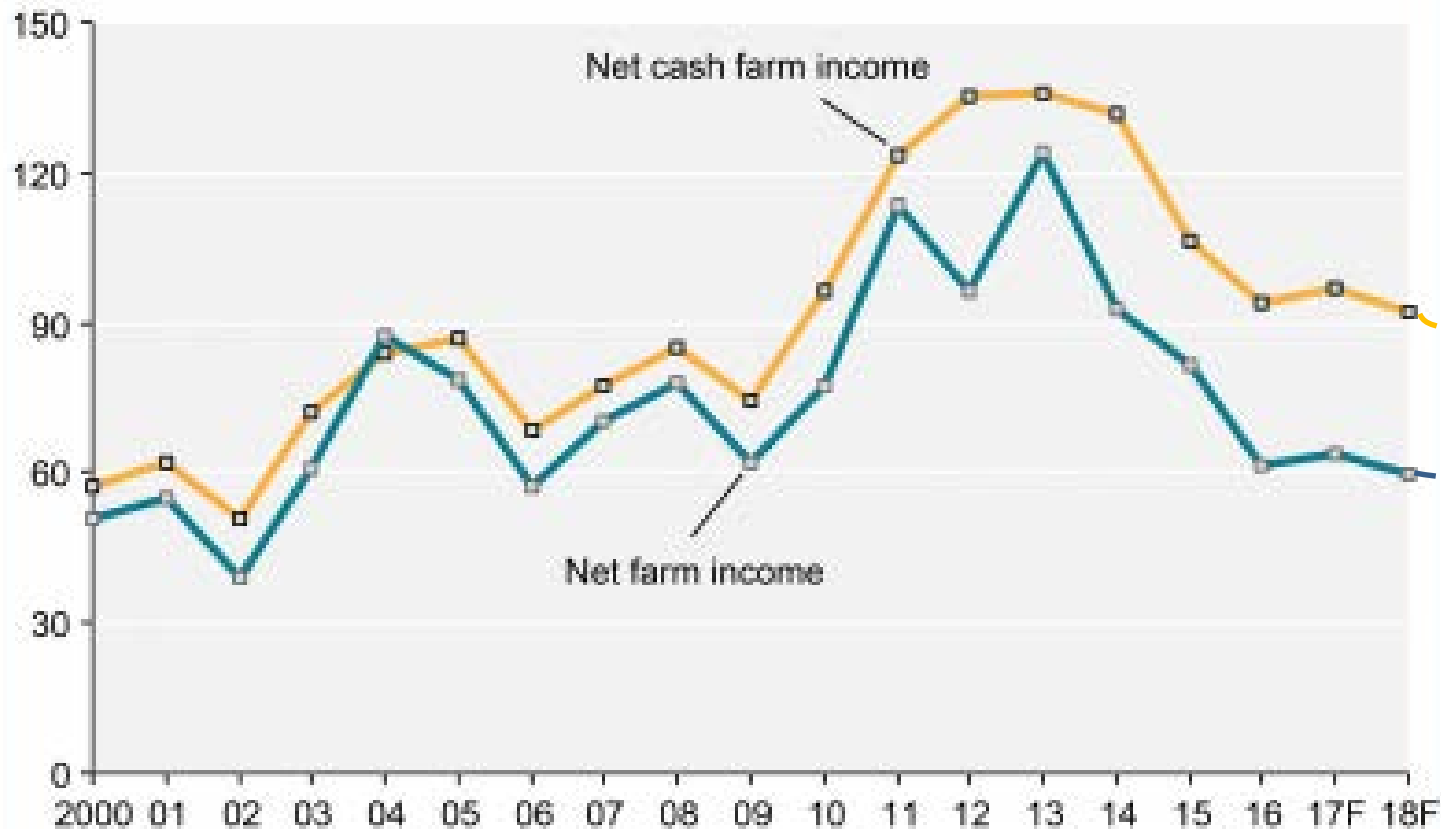
Economic Fundamentals
that drive land value
haven't improved much

Land Value = localized
net income / universal
interest rate

Net farm income and net cash farm income, 2000-18F

U.S.
Total

\$ billion, nominal



USDA
OCE
Forecast
to 2026

Note: F = forecast.

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

Data as of February 7, 2018.

fp Farm Policy News

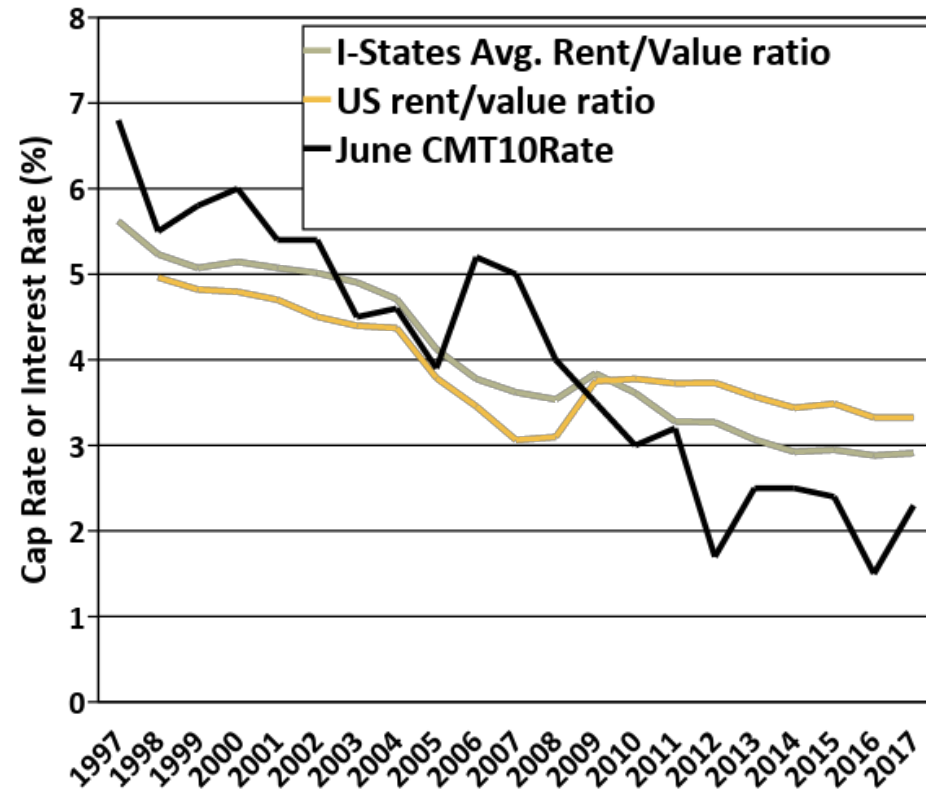
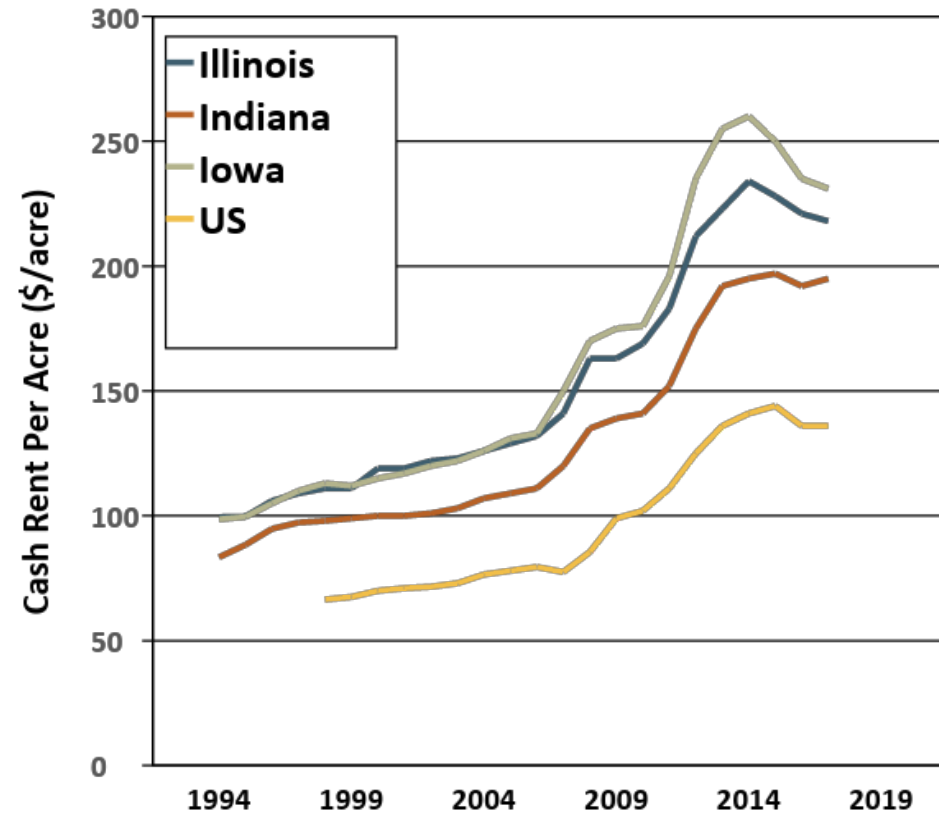
The U.S. Department of Agriculture's Economic Research Service (ERS) [indicated on Wednesday](#) that, "Net farm income, a broad measure of profits, is forecast to decrease \$4.3 billion (6.7 percent) to \$59.5 billion in 2018, which would be the lowest level in nominal terms since 2006."

What the Fed Reserve thinks the interest rate should be

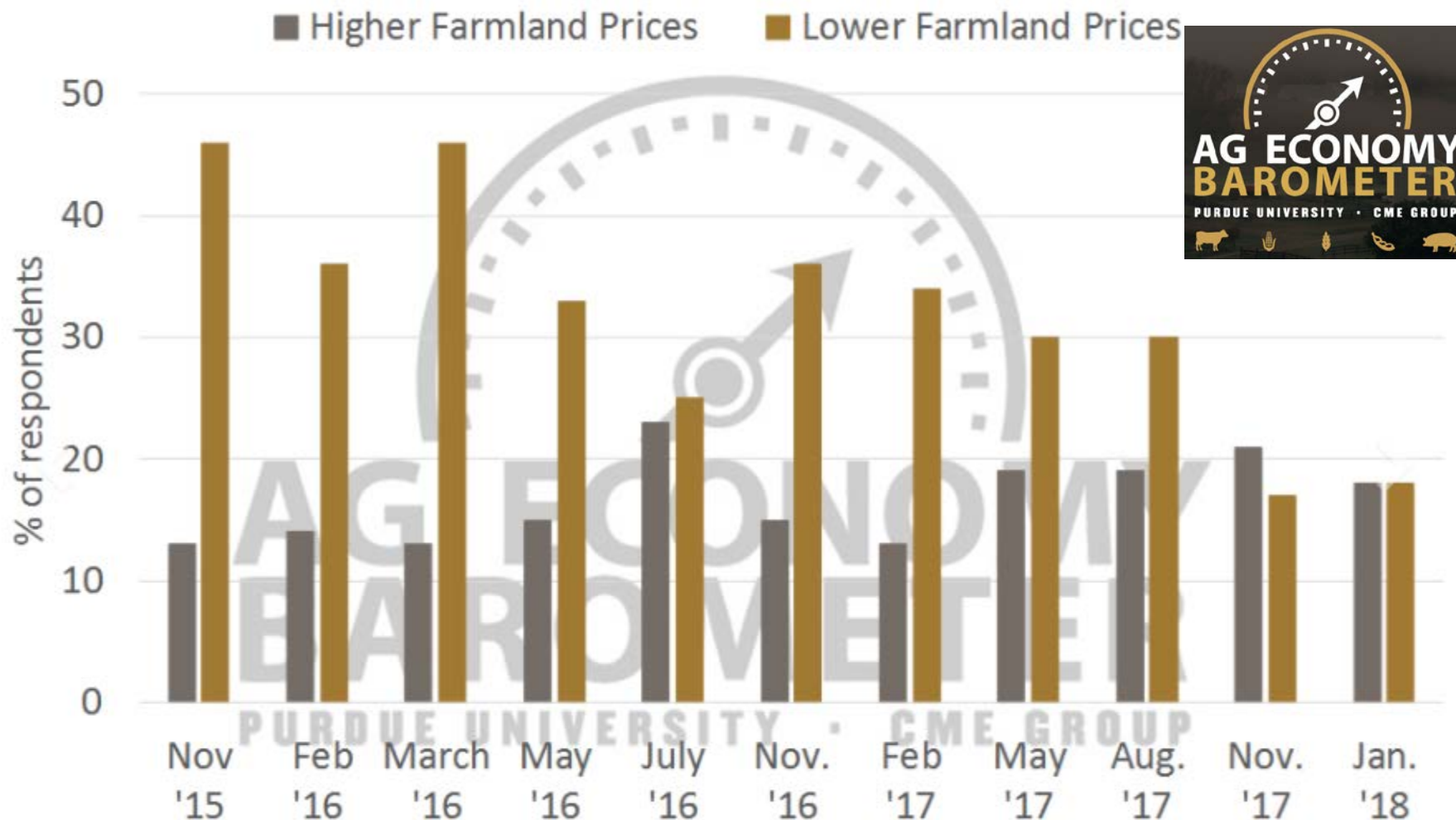


Left: Cash Rent Per Acre 1994-2017

Right: Cap Rate (Rent/Value) vs. CMT 10 Rate



Farmland Price Expectations, 12 months from now



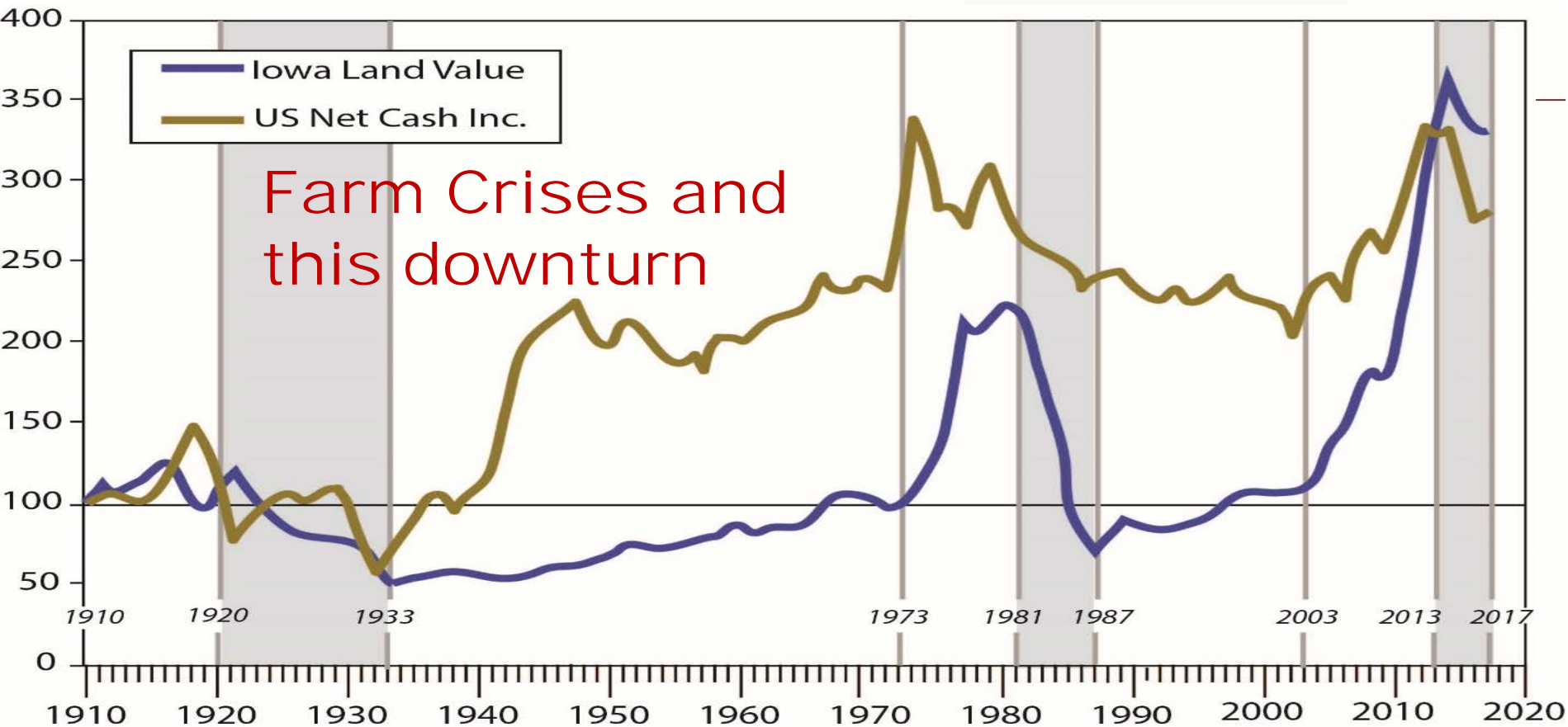
Most Recent Observation: Jan. 2018

Producer Survey

The Current Farm Downturn versus the 1920s and 1980s Farm Crises: An Economic and Regulatory Comparison

Wendong Zhang, Kristine Tidgren

Agricultural Finance
Review



No Farm Crisis Reason 1: Strong, Real Income Accumulation 2003-2013

Average annual percent change in nominal values			
Golden Eras	<i>Iowa Land</i>	<i>U.S. Gross Income</i>	<i>U.S. Net Income</i>
<i>1910-1920</i>	9.3%	9.0%	8.4%
<i>1973-1981</i>	19.5%	9.8%	5.3%
<i>2003-2013</i>	13.7%	7.1%	10.7%
Crises and Declines	<i>Iowa Land</i>	<i>U.S. Gross Income</i>	<i>U.S. Net Income</i>
<i>1921-1933</i>	-8.9%	-4.7%	-3.6%
<i>1981-1987</i>	-14.0%	2.1%	7.3%
<i>2013-2017</i>	1.1%	-2.4%	-6.4%
Average annual percent change in inflation-adjusted values			
Golden Eras	<i>Iowa Land</i>	<i>U.S. Gross Income</i>	<i>U.S. Net Income</i>
<i>1910-1920</i>	1.7%	1.1%	0.5%
<i>1973-1981</i>	9.6%	0.7%	-3.4%
<i>2003-2013</i>	11.0%	4.5%	8.2%
Crises and Declines	<i>Iowa Land</i>	<i>U.S. Gross Income</i>	<i>U.S. Net Income</i>
<i>1921-1933</i>	-5.8%	-2.0%	-1.3%
<i>1981-1987</i>	-15.0%	-2.4%	2.7%
<i>2013-2017</i>	-0.1%	-3.7%	-7.6%

Source: Zhang and Tidgren 2018 Ag Finance Review

Landowners tend to hold the farmland; and many don't have debt

Years Owned by the same owner	% of Iowa Farmland
<10 years	24%
10-20 Years	21%
20-30 Years	19%
30-40 Years	15%
> 40 Years	20%

Table 3.5: Finance method as a percent of farmland

	1982	1992	2002	2007	2012
Free of debt	62%*	70%*	74%	75%	78%
Under contract	18%*	11%*	4%	4%	3%
Mortgaged	20%	19%	22%*	21%*	19%

* Indicates significant differences relative to the 2012 survey at the 5 percent level

Source: 2012 Iowa Farmland Ownership and Tenure Survey; 2017 Survey results will be released this spring

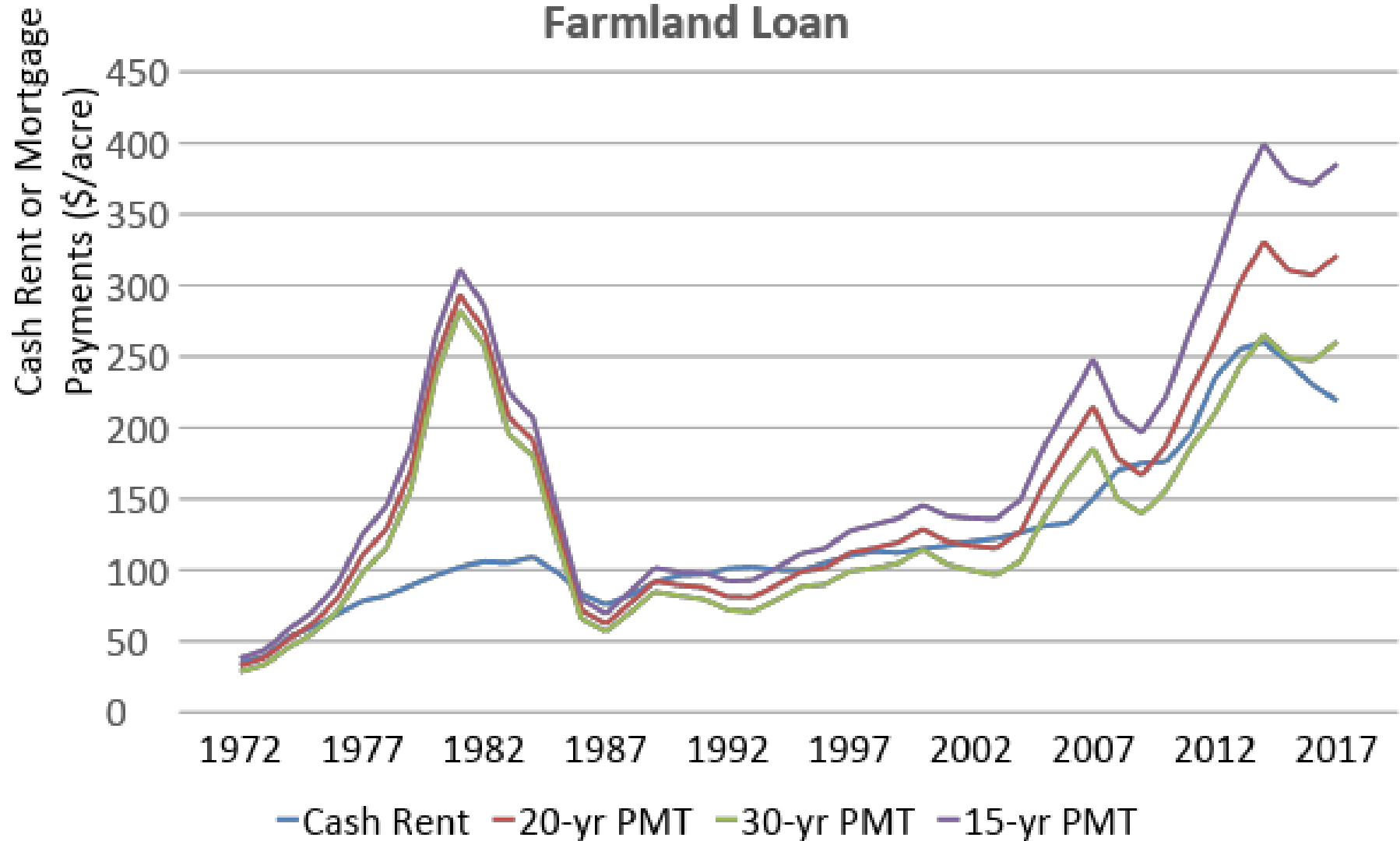
No Farm Crisis Reason 2: Historically low interest rates, despite recent hikes



No Farm Crisis Reason 3: Prudence in Ag Lenders/Regulators

- Cash-Flow Based Loan Practice; More stringent underwriting practice
 - Before 1987: loan to value ratio is 85%
 - 1987-2008: loan to value ratio is 65%
 - After 2008: use cash-flow method for collateral (\$4 corn, \$10 bean) and 50% of cash flow value
- Increased capitalization requirements for banks
- Ag credit shifts to more diversified institutional lenders

Annual Mortgage Payments vs. Cash Rents for Iowa Farmland Loan



<https://www.card.iastate.edu/farmland>

Iowa Farmland Value Portal

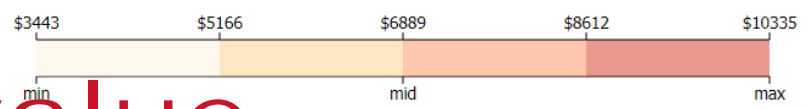
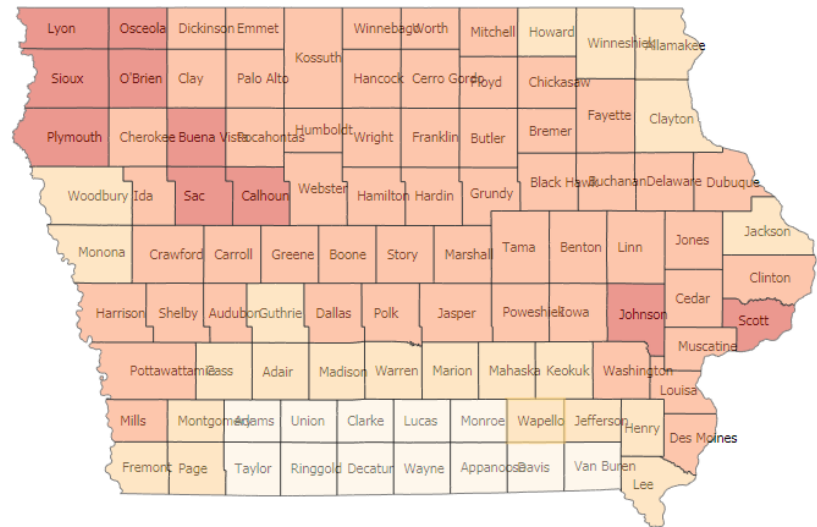


#ISUlandvalue

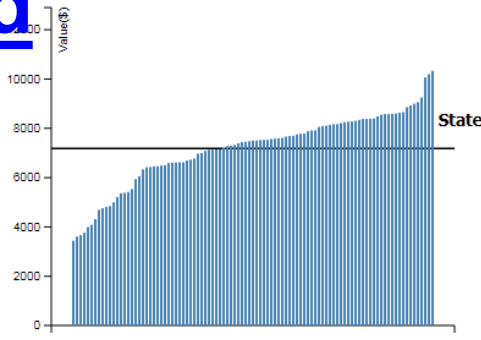


<http://bit.ly/LandResults2017>

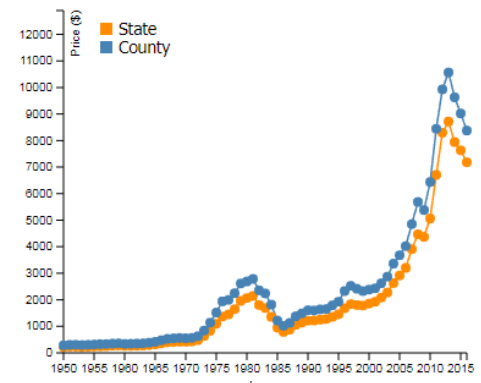
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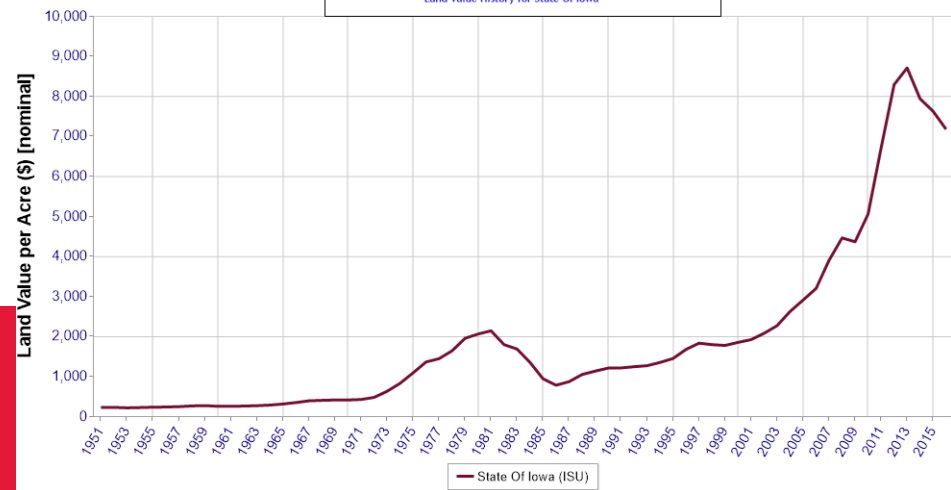
Iowa County Land Value in 2016



Land Value Trend in County: Story



CARD IOWA STATE UNIVERSITY
Extension and Outreach
Land Value History for State Of Iowa



Thank You!

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