

Farm Finance Update



FEDERAL RESERVE BANK *of* KANSAS CITY

March 17, 2017

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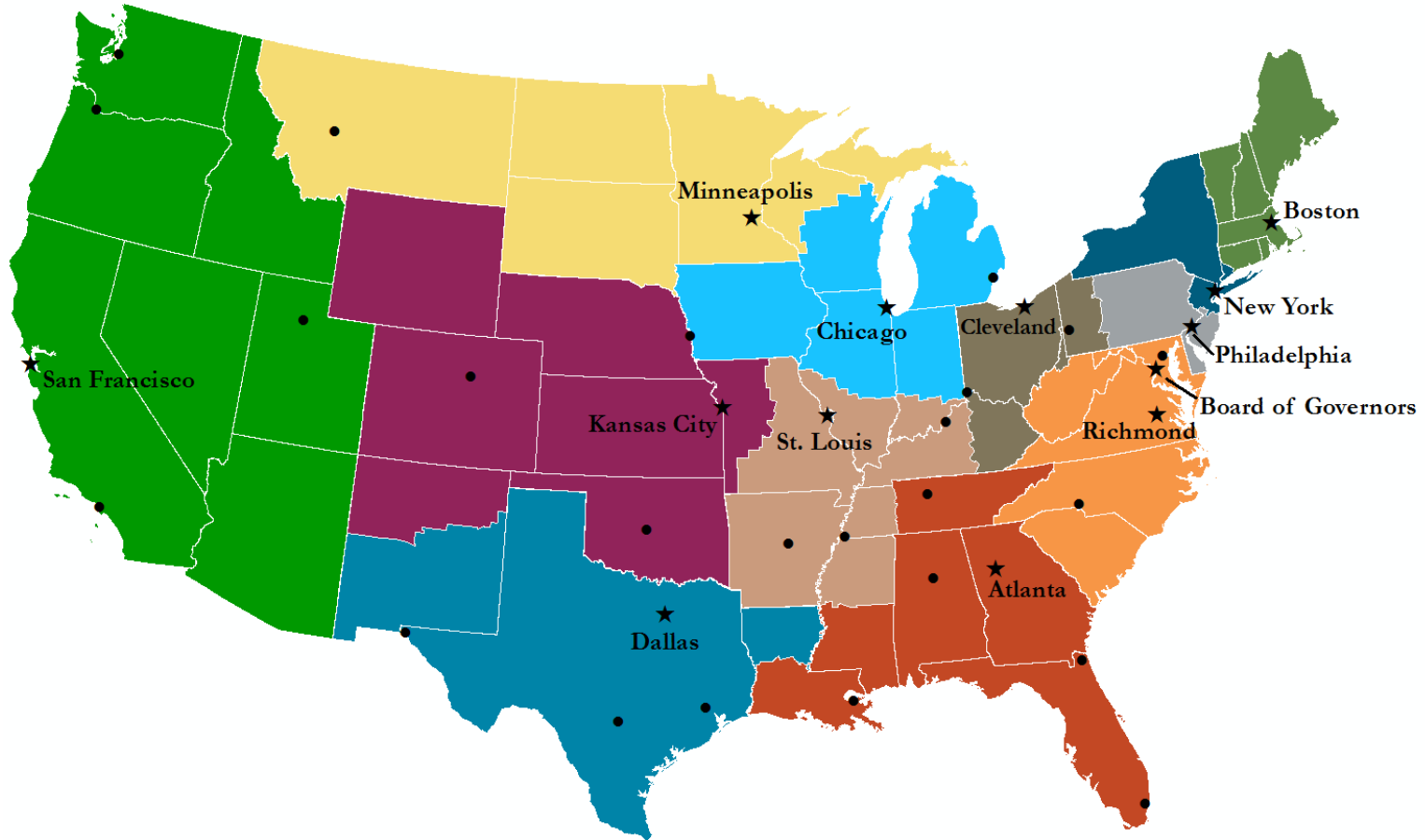
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The views expressed are those of the author and do not necessarily reflect the opinions of the Federal Reserve Bank of Kansas City or the Federal Reserve System

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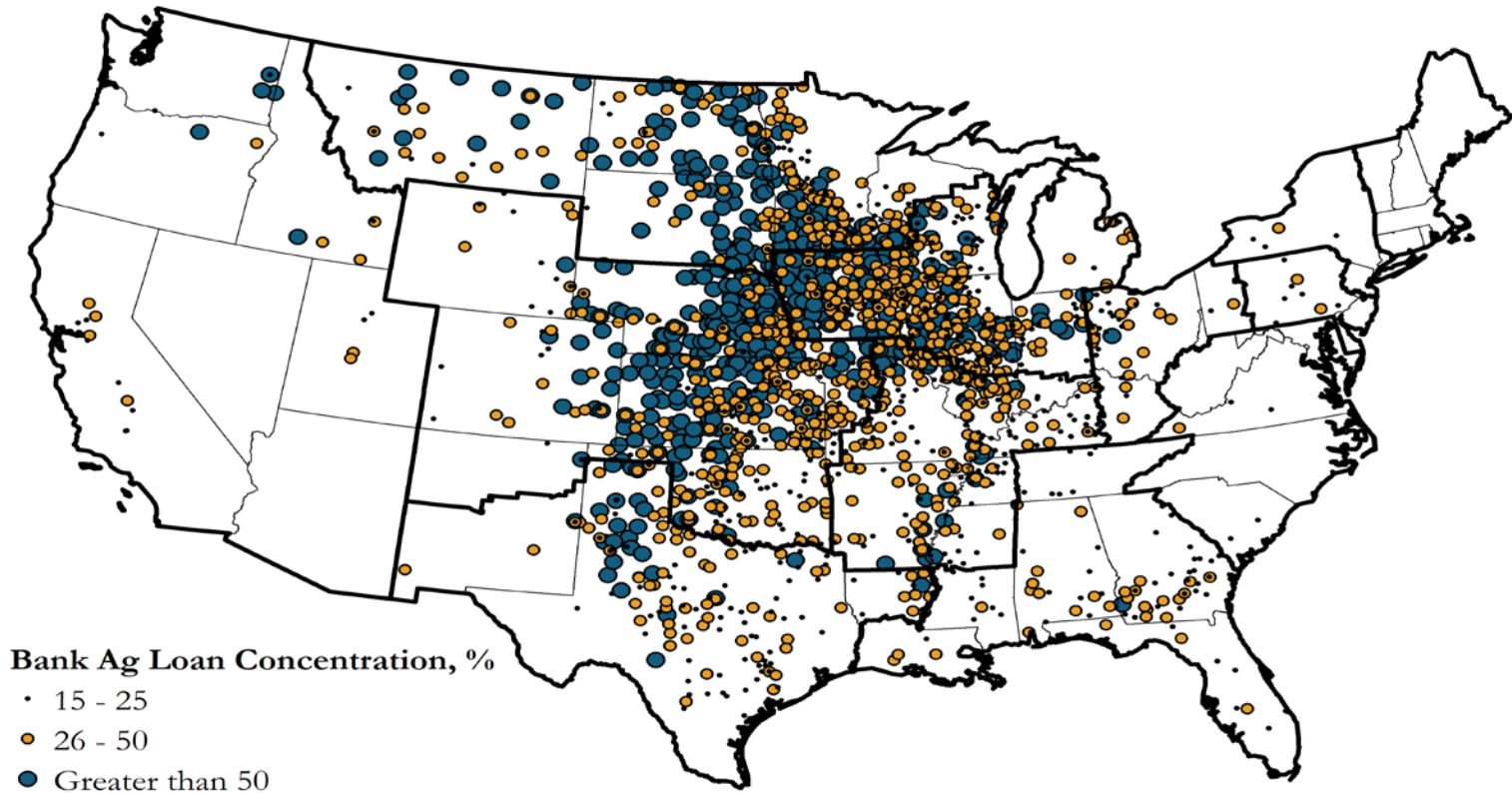


Regional Federal Reserve Banks are important to the structure of U.S. monetary policy.



Commercial banks connected to agriculture are concentrated in the region.

Agricultural Banks in the U.S.



Source: Federal Reserve Board of Governors.

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Outlook Themes

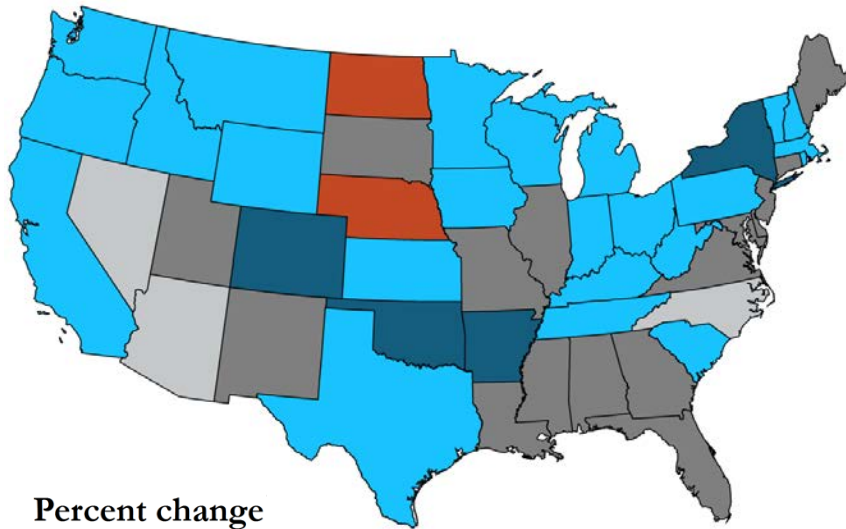
- The downturn in agriculture is in a 4th consecutive year.
- Strong production last year improved cash flow for many producers, but prices remain low and challenges in the livestock sector remain.
- Most measures of farm finances continue to weaken, but gradually.



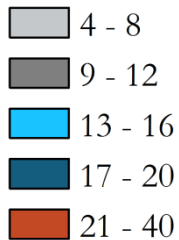
Per capita incomes are still rising, but have slowed in the central U.S., a commodity-dependent region.

Per Capita Personal Income

Change from 2008 to 2014

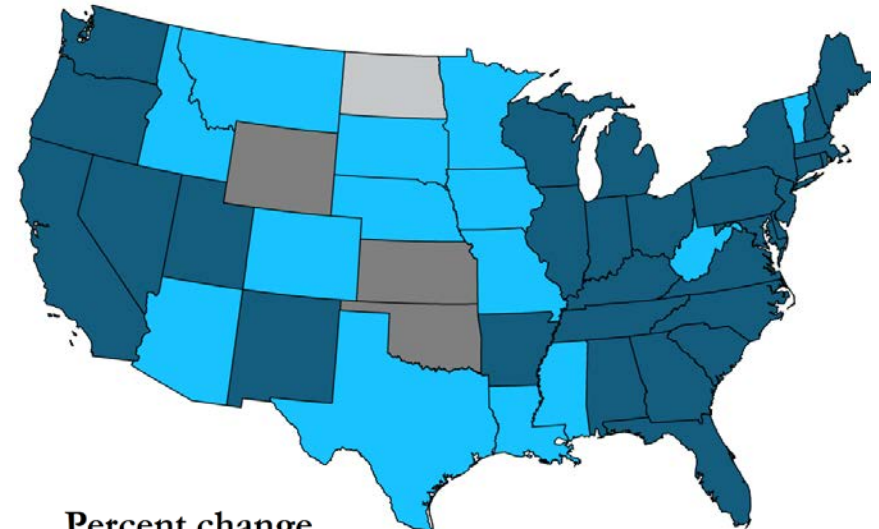


Percent change

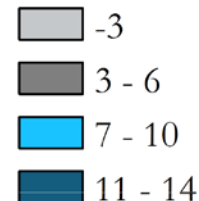


Source: BEA.

Change from 2014 to 2016



Percent change

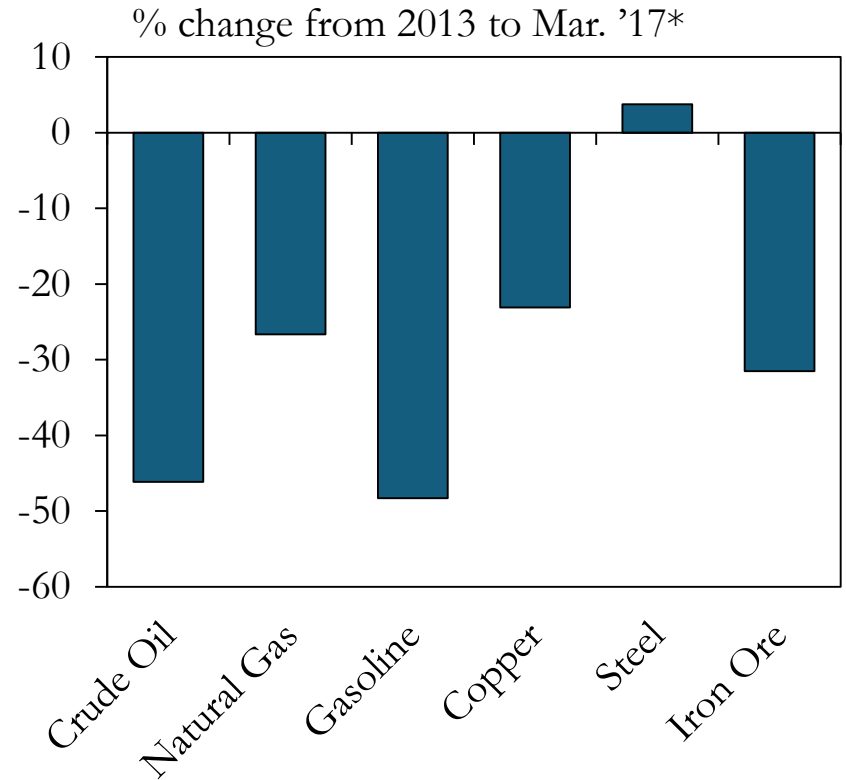
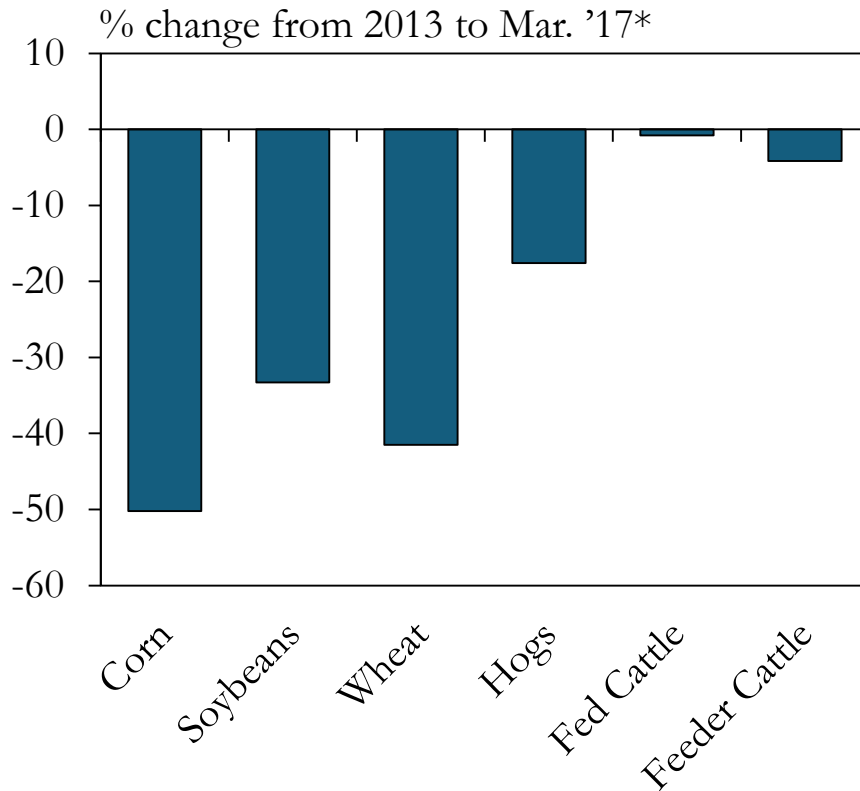


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Commodity prices, not just in agriculture, have fallen sharply since 2013.

Change in Commodity Prices since 2013



* Through 3/13/2017

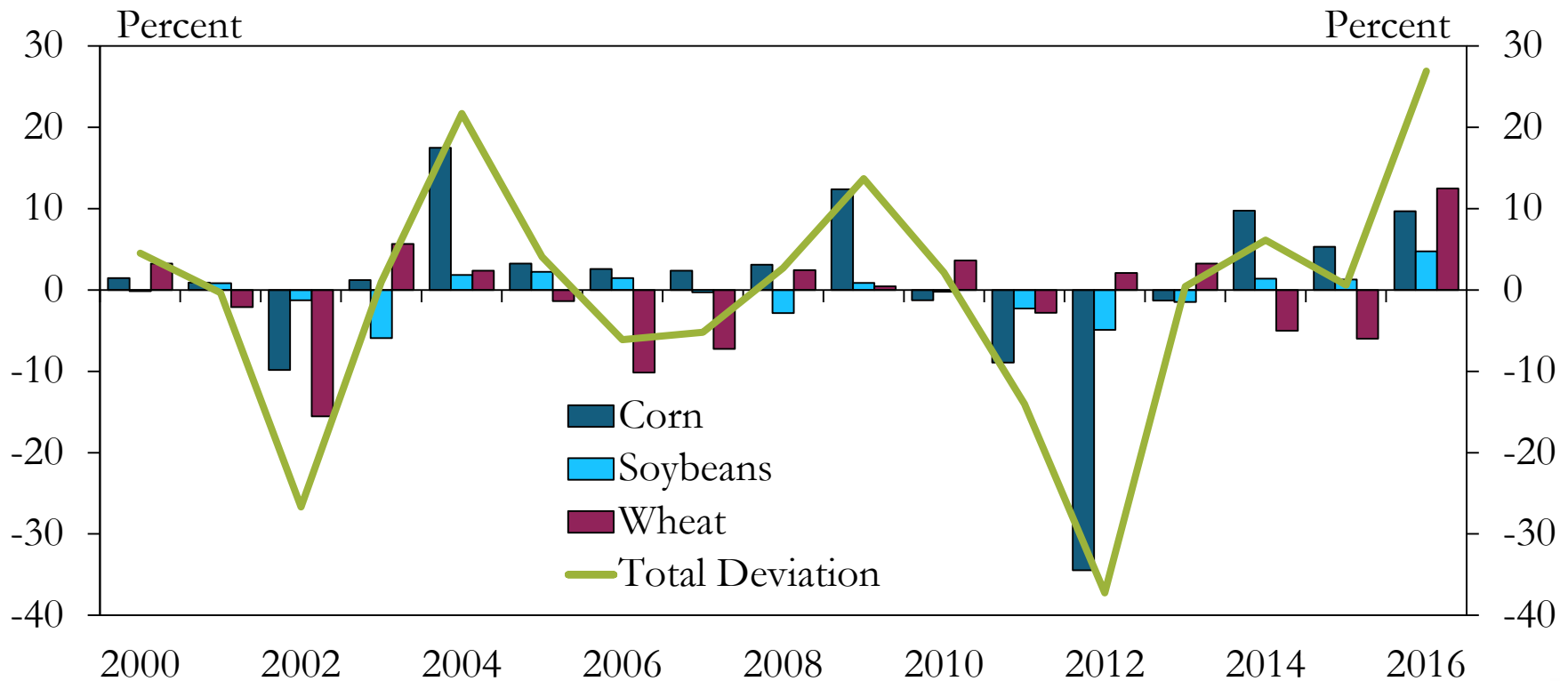
Sources: *The Wall Street Journal* and Haver Analytics.

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Last year's crop production boosted cash flow for some producers, but has weighed on prices.

Crop Yields: Deviation from Trend



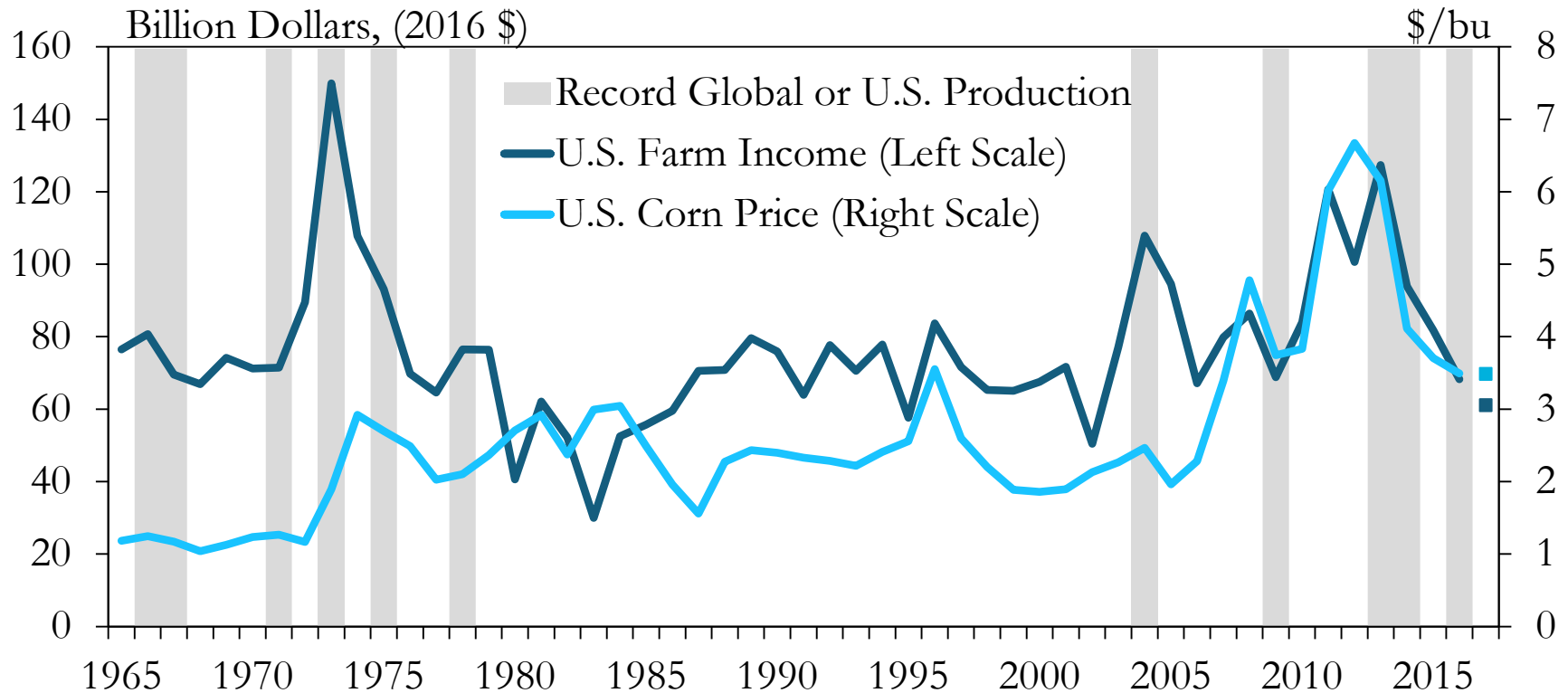
Source: USDA and staff calculations.

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Multiple years of record production, and the drop in commodity prices, have cut farm income.

Net Farm Income and Production



Note: The shaded areas represent years when either U.S. or global production of corn, soybeans and wheat set a new record.

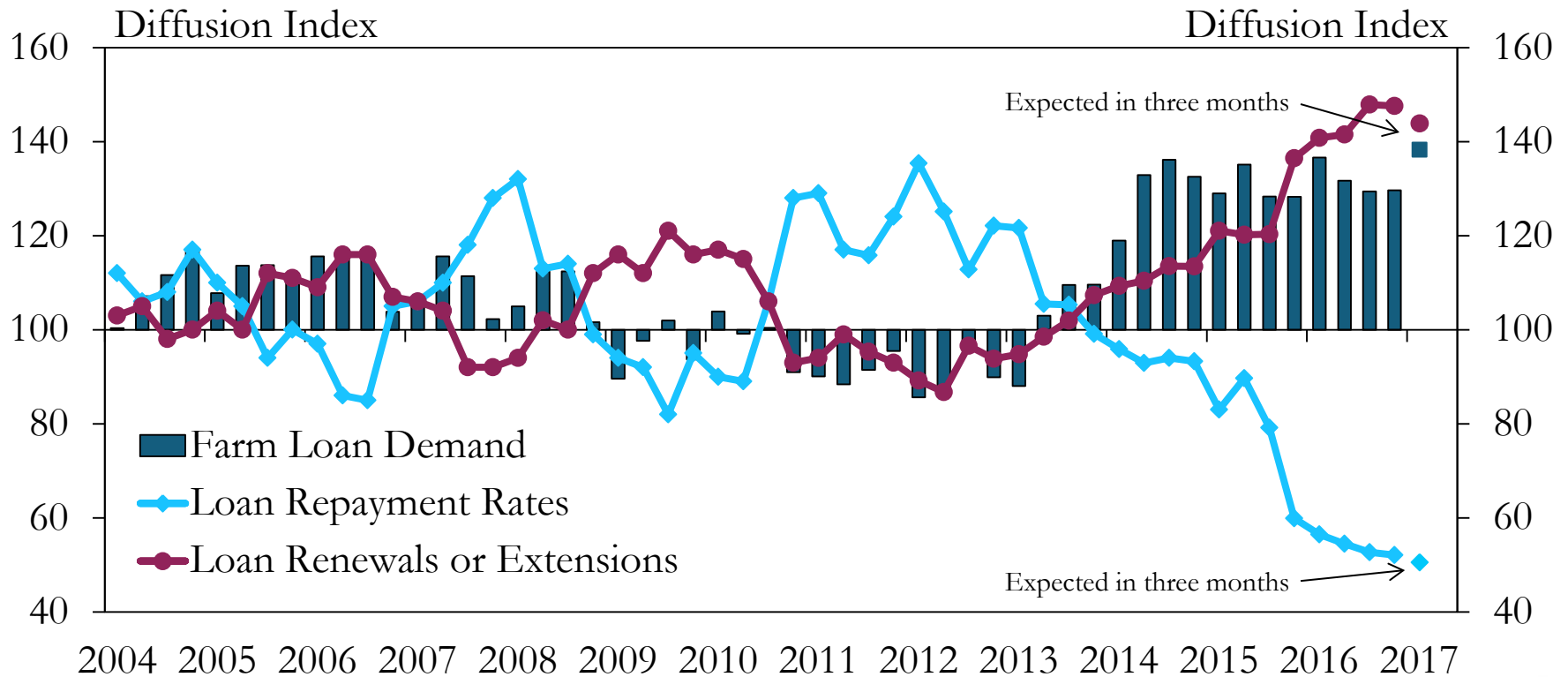
Sources: USDA.

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Reduced income has spurred demand for financing, and loan repayment rates have softened.

Agricultural Credit Conditions KC Fed District



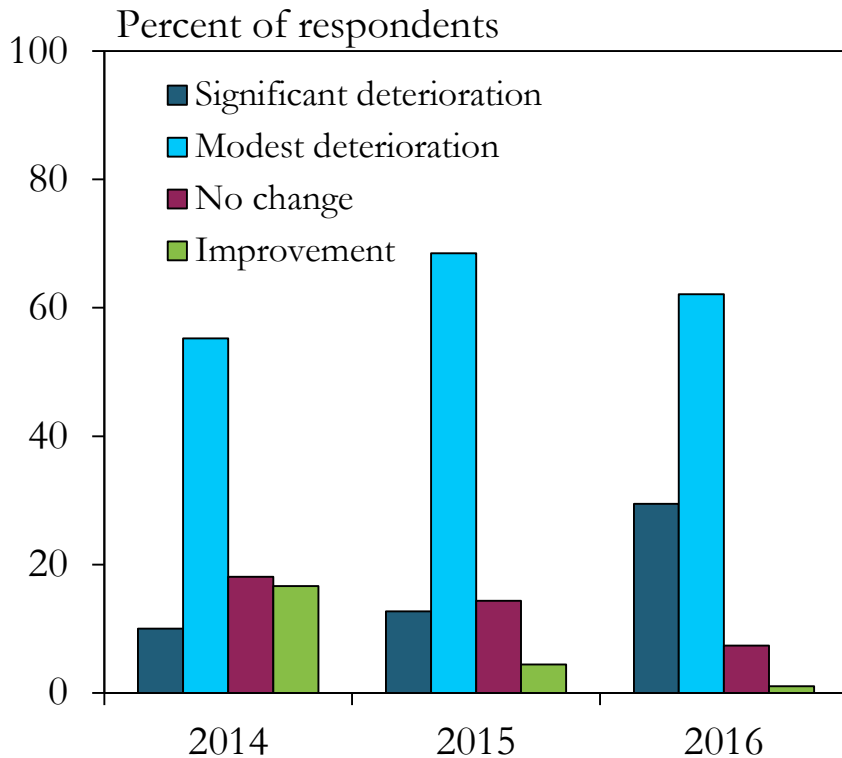
Source: Federal Reserve Bank of Kansas City.

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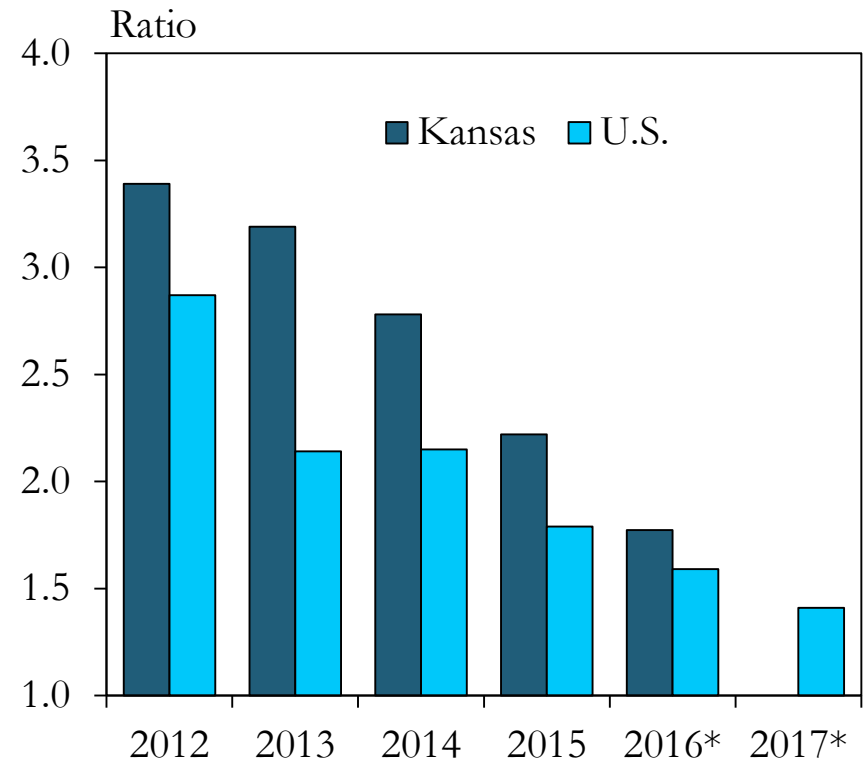


Tightening financial conditions have strained working capital positions.

Crop Producers' Working Capital KC Fed District: Change from Previous Year



Current Ratio



* 2016 Estimate and 2017 Forecast.

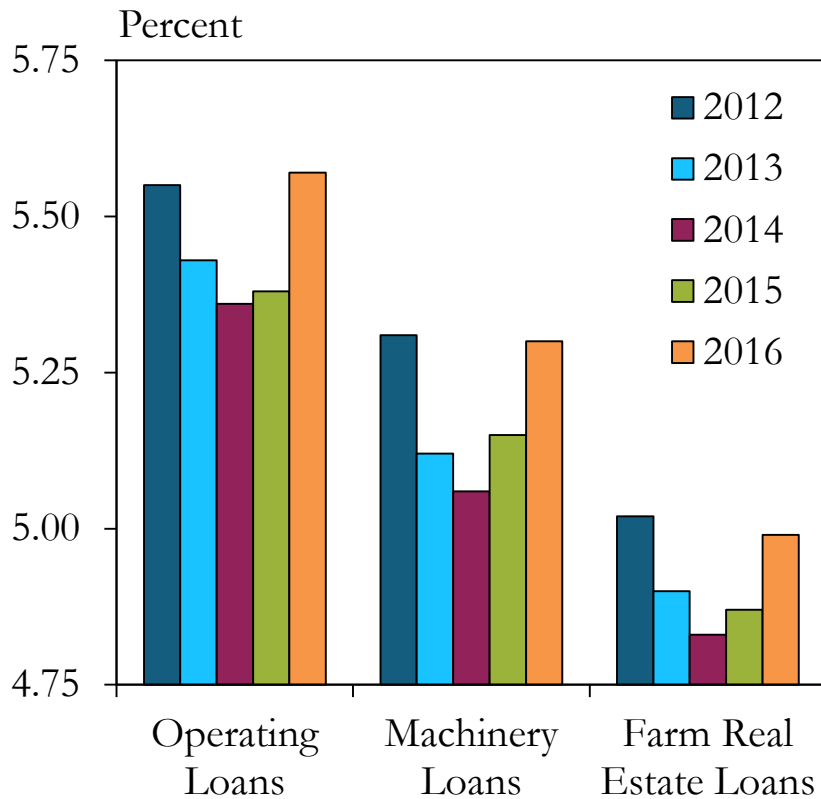
Sources: Federal Reserve Bank of Kansas City, Kansas State University, and USDA.

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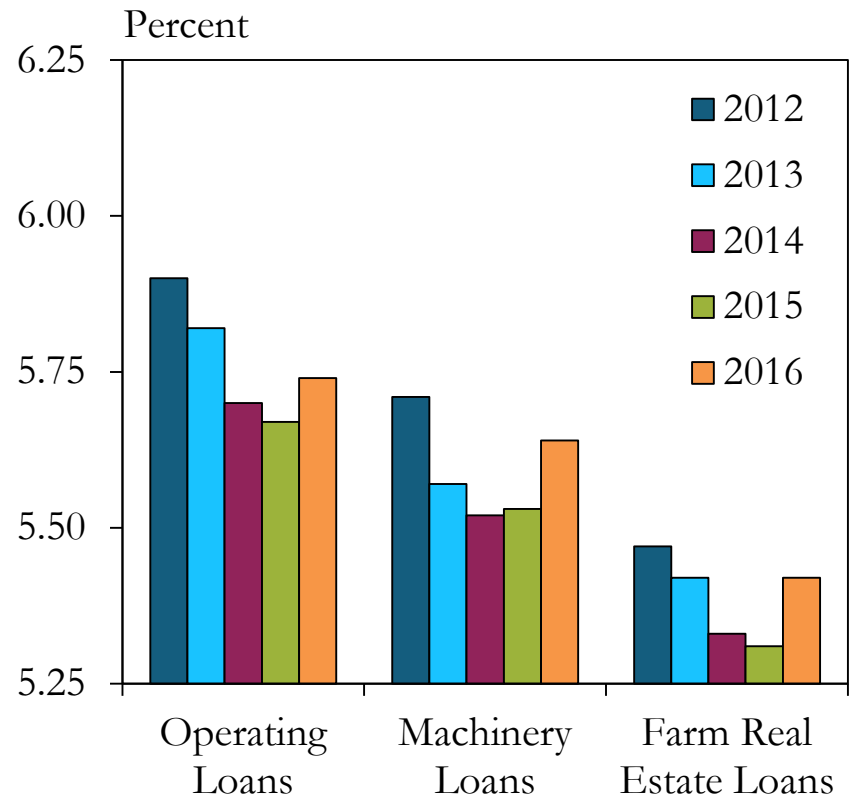


Interest rates have edged up, particularly for variable rate loans.

Variable Interest Rates



Fixed Interest Rates



Source: Federal Reserve Bank of Kansas City.

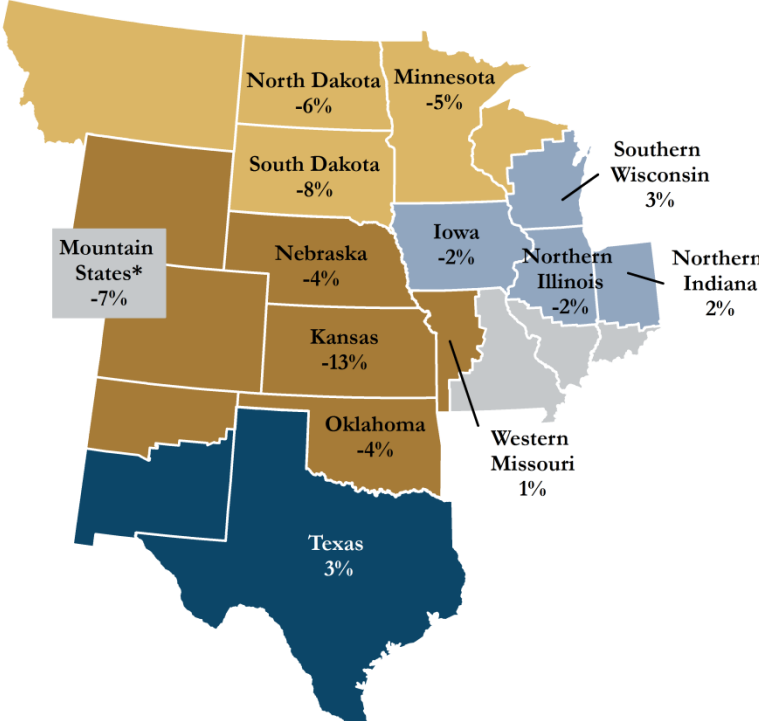
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Farmland values have continued to decline from their peaks in 2013-2014, but gradually.

High Quality Farmland Values 2016:Q4

Percent change from previous year



Change in U.S. Farmland Values, Peak to 2016:Q4

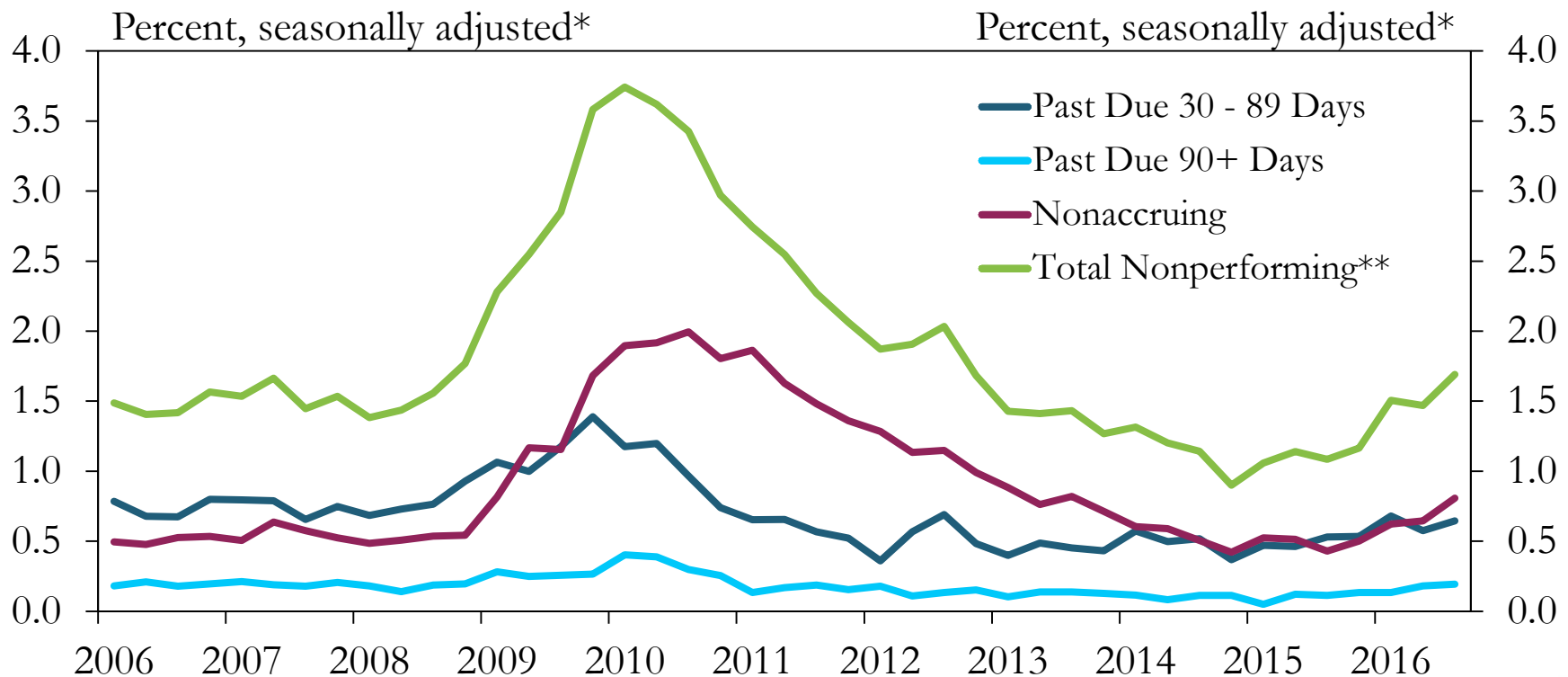
State	Peak Quarter	Percent Change from Peak
Mountain States*	2016:Q2	-27
Kansas	2013:Q4	-21
Minnesota	2013:Q1	-21
N. Dakota	2015:Q3	-19
S. Dakota	2014:Q3	-17
Iowa	2013:Q2	-17
Nebraska	2013:Q3	-11
N. Illinois	2014:Q2	-10
Missouri	2013:Q3	-9
N. Indiana	2013:Q4	-9
S. Wisconsin	2015:Q1	-9
Texas	2016:Q4	No Decline
Oklahoma	2016:Q4	No Decline

Source: Federal Reserve Bank of Kansas City.



Farm loan delinquency rates have edged up, but only slightly.

Past Due and Non-Accruing Farm Loans at Commercial Banks



* Percent of all outstanding non-real estate farm production loans at commercial banks.

** Total nonperforming loans includes the share of all past due, nonaccruing and net charge-off loans.

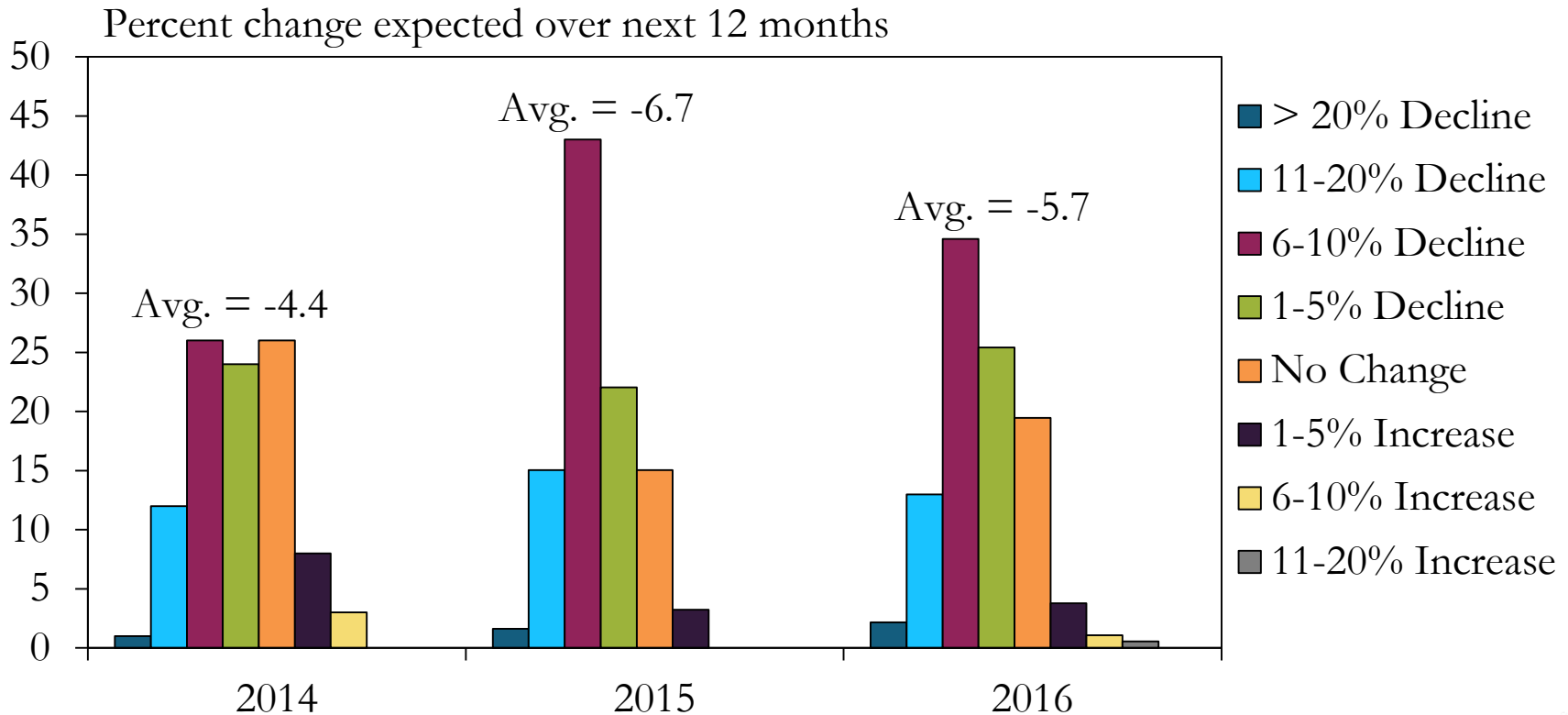
Source: Federal Reserve Bank of Kansas City.

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However, farmland values are still expected to trend lower.

Expected Change in Nonirrigated Cropland Values



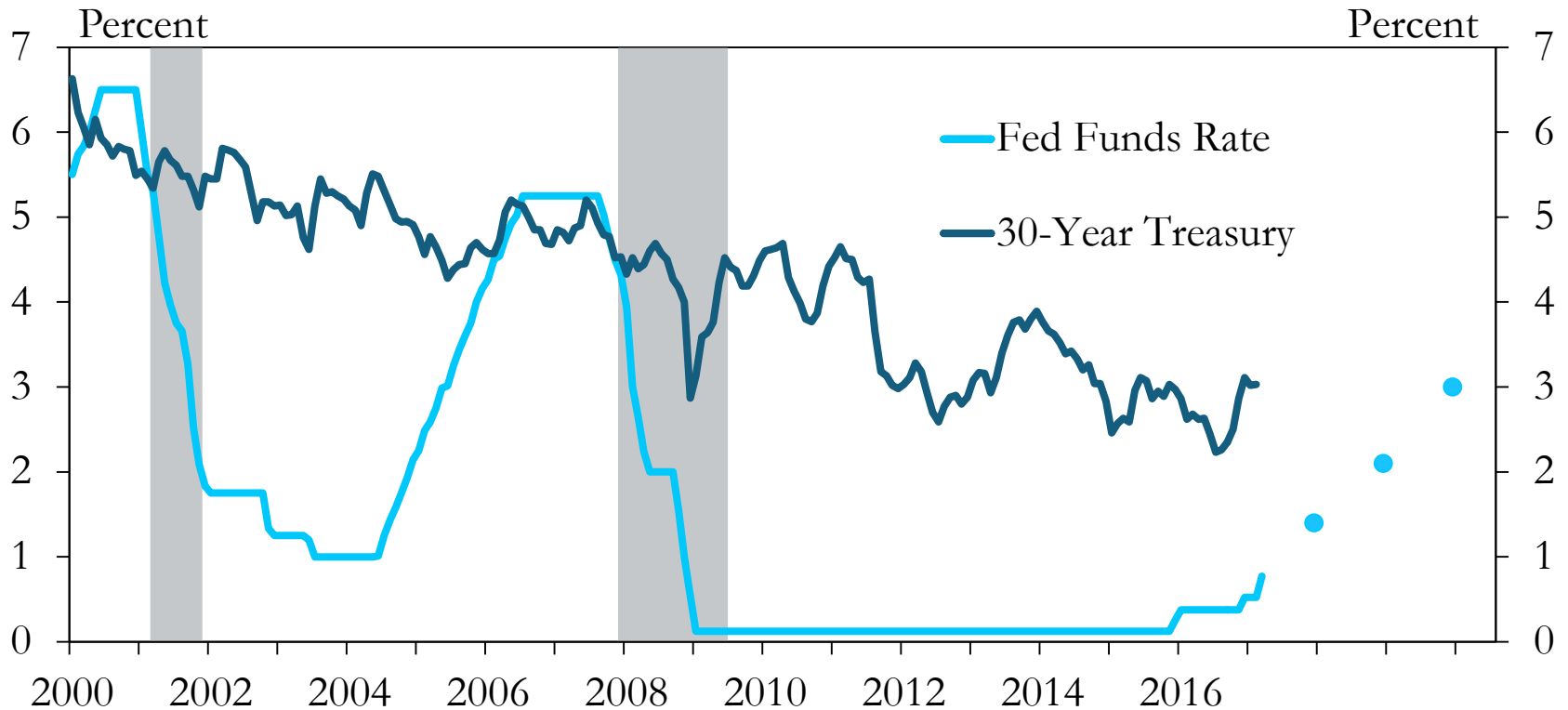
Source: Federal Reserve Bank of Kansas City.

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Interest rates have been projected to rise gradually.

U.S. Interest Rates



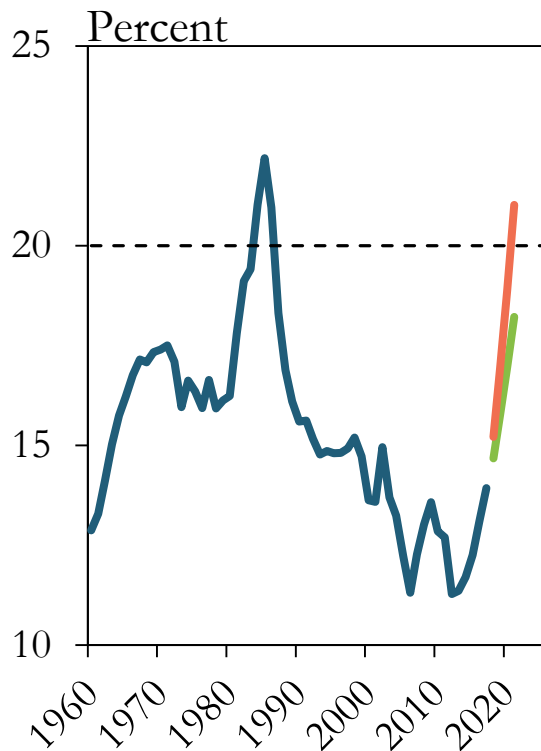
Sources: Federal Reserve Bank Board of Governors and Haver Analytics.

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If debt continues to grow and land values continue to fall, significant problems may still arise, but slowly.

Farm Sector Debt-to-Asset Ratio



Source: USDA and author's calculations.

Number of Years to Reach Debt-to-Asset Ratio of 20%

Annual Change in Farm Debt

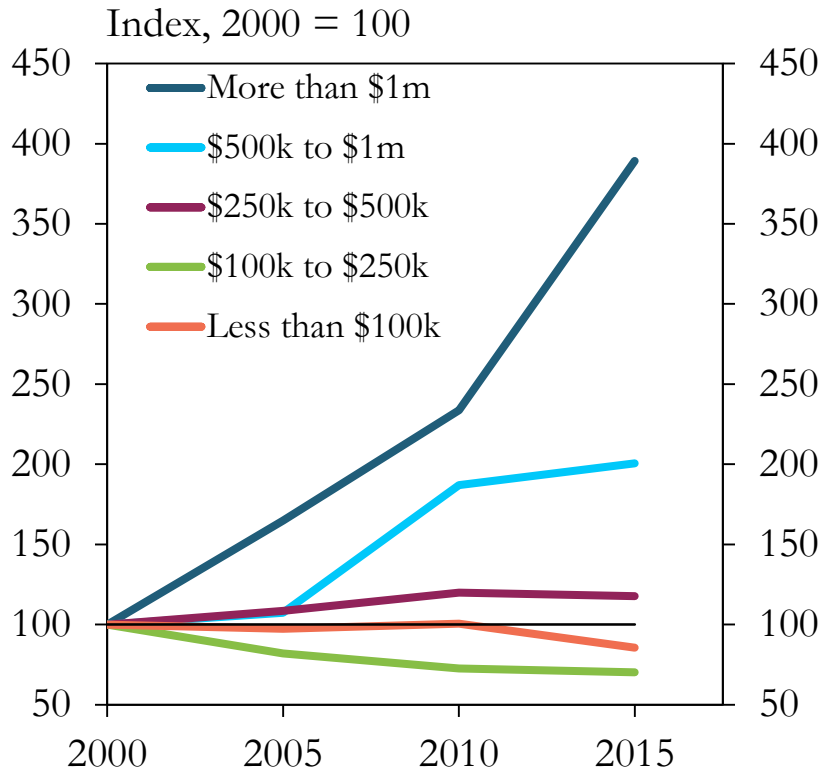
Annual Change in
Farmland Values

	0%	2%	4%	6%	8%	10%
0%	--	18.2	9.2	6.2	4.7	3.8
-2%	21.9	9.9	6.5	4.8	3.9	3.2
-4%	11.0	6.8	5.0	3.9	3.3	2.8
-6%	7.3	5.1	4.0	3.3	2.8	2.5
-8%	5.4	4.1	3.4	2.9	2.5	2.2
-10%	4.3	3.4	2.9	2.5	2.2	2.0



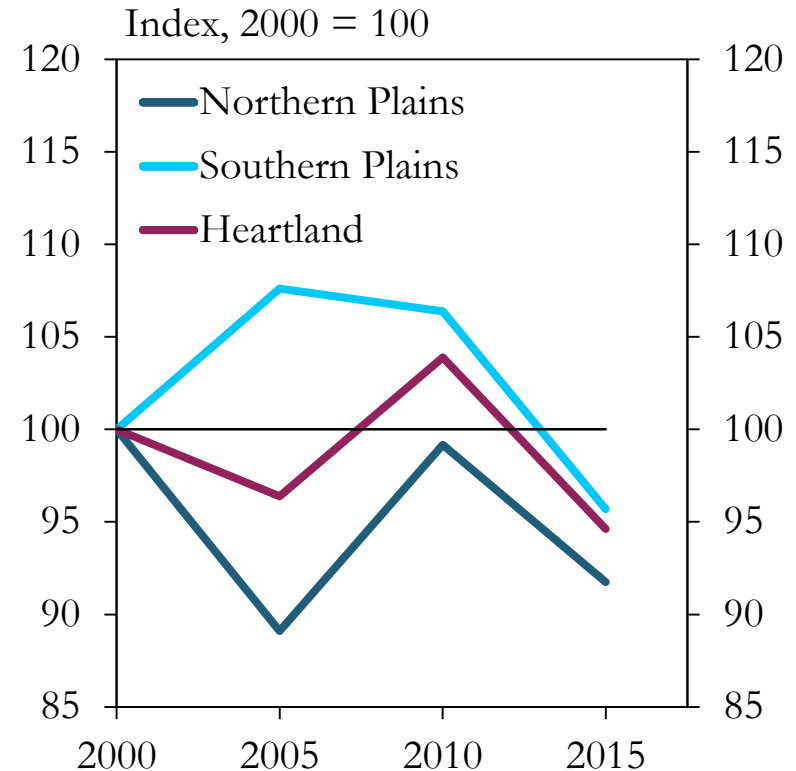
Ag and rural consolidation is a potential implication of a prolonged downturn.

Number of Farms by Economic Class



Source: USDA.

Total Number of Farms



Source: USDA.FEDERAL RESERVE BANK OF KANSAS CITY





**AGRICULTURAL
CONSOLIDATION**
CAUSES & THE PATH FORWARD

Federal Reserve Bank of Kansas City
AGRICULTURAL SYMPOSIUM
June 15-16, 2017

Concluding Remarks

- Farm finances remain a concern and economic risk for the region.
- The recent downturn in the rural/ag economy would have been more severe if farmland values dropped more significantly.
- Although the outlook for ag is not a crisis, there is potential for further consolidation.



Questions?

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