

Statement of  
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Federal Reserve Bank of Kansas City  
Before the  
House Committee on Agriculture  
Subcommittee on General Farm Commodities and Risk Management

June 2, 2015

Thank you Mr. Chairman and members of the subcommittee. My name is Nathan Kauffman, and I am assistant vice president and economist at the Federal Reserve Bank of Kansas City, a regional Reserve Bank that has long devoted significant attention to U.S. agriculture. In my role, I lead several efforts to track the agricultural and rural economy, including a regional agricultural credit survey and the Federal Reserve System's Agricultural Finance Databook, a national survey of agricultural lending activity at commercial banks. I am pleased to share with you the following information on recent developments in the financial conditions in U.S. agriculture. Before I begin, let me emphasize that my statement represents my view only and is not necessarily that of the Federal Reserve System or any of its representatives.

### **Farm Income Conditions and Farmland Values**

The outlook for the U.S. agricultural economy has shifted significantly over the past two years. Following several years of historically high farm income, primarily driven by strong demand for agricultural products and high commodity prices, farm income has dropped considerably since 2013. According to the U.S. Department of Agriculture, net farm income in 2015 is projected to be about 43 percent less than the record high set in 2013.

The drop in farm income has primarily been due to lower prices of major U.S. row crops combined with production costs that have remained persistently high. For example, corn prices are currently about 50 percent less than in 2013 and soybean prices have dropped more than 30 percent over the same time frame. Despite the lower commodity prices, input costs have remained relatively high, causing profit margins to weaken notably over the past two years.

Quarterly surveys of agricultural banks conducted by regional Federal Reserve Banks have also pointed to reduced farm income. According to the Kansas City Fed's survey, farm income has declined in every quarter since mid-2013 when compared with the same quarter in the preceding year. Bankers surveyed by other Federal Reserve Districts have reported similar reductions in farm income despite extraordinarily high profit margins in U.S. cattle, hog, and dairy sectors in 2014.

Weaker farm income and reduced cash flow, particularly in the crop sector, have also caused farmland prices to decline from their recent record highs. After posting annual gains of 25 to 35 percent between 2010 and 2012, Federal Reserve surveys show that farmland values have steadily decreased over the past year in Iowa, Illinois, Nebraska, and Minnesota. These four states collectively account for more than half of total U.S. corn production.

### **Agricultural Lending and Credit Conditions**

Ongoing declines in farm income and reduced levels of working capital have caused the financial condition of crop producers to deteriorate recently. Federal Reserve surveys show that farm loan repayment rates at commercial banks have steadily weakened since 2013 in states concentrated in row crop production. In a March 2015 survey of agricultural credit conditions conducted by the Federal Reserve Bank of Kansas City, more than 60 percent of responding banks reported a modest deterioration in the financial conditions of crop producers relative to the previous year.

As cash flow has declined, more producers have also needed external financing to pay for operating expenses and capital purchases. The Federal Reserve's Agricultural Finance Databook, included in the material that follows, shows that the volume of new, short-term farm loan originations has increased by an annual average of 20 percent since the beginning of 2014. Increased loan demand has also been supported by livestock loans for the purchase of feeder cattle, where prices remain near historical highs.

To briefly summarize, the risk associated with agricultural production in the U.S. appears to have increased since 2013, particularly in row crop production. Farmers with especially high production costs and high levels of debt will likely face additional financial stress in the coming months if the current environment in crop sector profit margins persists. Although a farm crisis on the scale of the 1980s seems unlikely at this point, there appears to be growing concern among agricultural lending institutions that the level of financial stress in the sector, overall, may also intensify over the next six to twelve months.

The following material, published by the Federal Reserve Bank of Kansas City, is also included with my written statement to provide additional detail on recent developments in the financial conditions of U.S. agriculture.

**Federal Reserve Bank of Kansas City: Agricultural Credit Survey (May 2015)**

**“Agricultural Credit Conditions Weaken”**

By Nathan Kauffman, Assistant Vice President and Omaha Branch Executive,  
Cortney Cowley, Economist and Maria Akers, Associate Economist

**Summary**

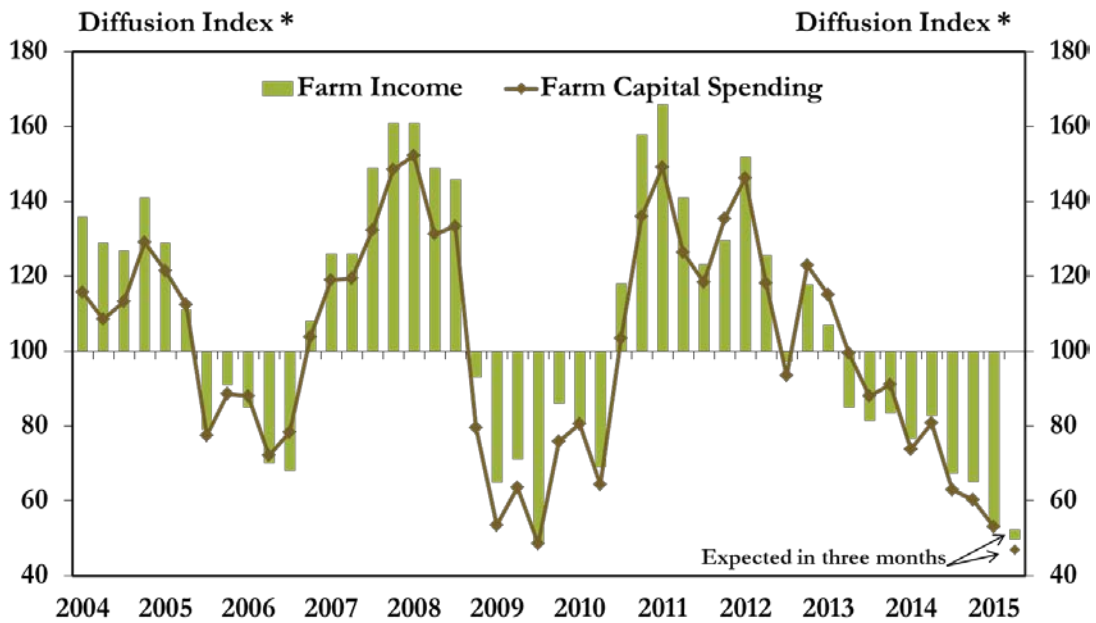
Credit conditions in the Federal Reserve’s Tenth District weakened as farm income declined further in the first quarter of 2015. Persistently low crop prices and high input costs reduced profit margins and increased concerns about future loan repayment capacity. Funds were available to meet historically high loan demand, but loan repayment rates dropped considerably. Although profit margins in the livestock industry have remained stable, most bankers do not expect farm income or credit conditions to improve in the next three months. Reduced incomes in the crop sector trimmed the value of nonirrigated and irrigated cropland, but steady profitability in the cattle sector supported higher prices for ranchland.

**Farm Income**

Farm income continued to decline in the first quarter of 2015 (Chart 1). Reduced supplies from winter wheat kill and persistently low crop prices have tightened revenues for crop producers. Despite poor winter wheat conditions in parts of the Tenth District that may limit production, wheat prices have remained around 30 percent less than a year ago. Similarly, as of the end of April, corn prices were about 27 percent less than the previous year. Moreover, since July 2014, the monthly average price of corn has been less than \$4.00 per bushel, generally below what some bankers noted is the breakeven cost of production for corn producers. Although many livestock operators have profited from lower feed grain costs, crop production costs have remained relatively high.

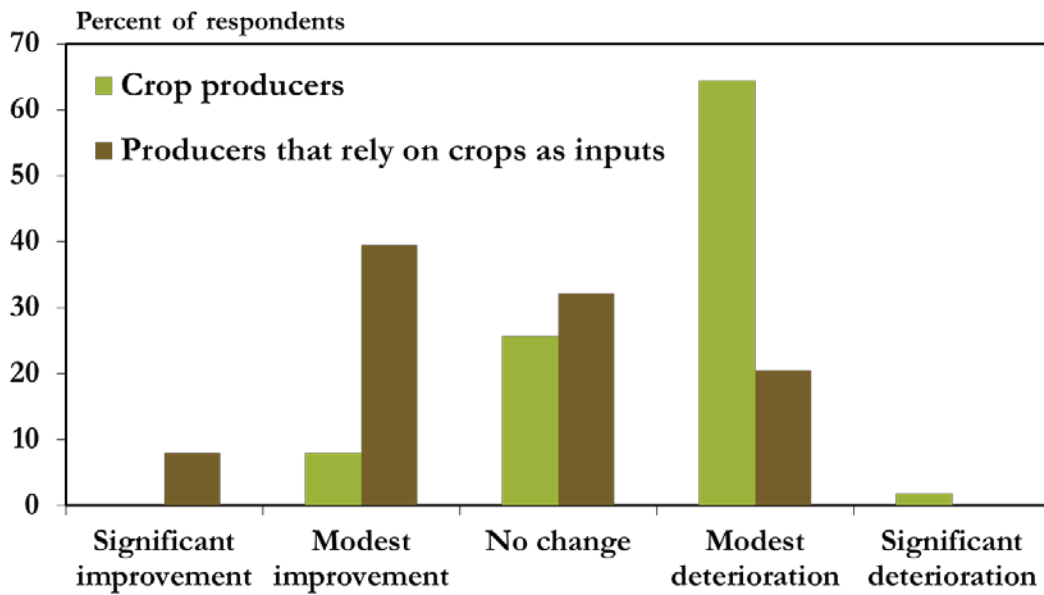
Weaker profit margins and reduced cash flows caused financial conditions to weaken for many crop producers in the District. In fact, more than 60 percent of survey respondents reported a modest deterioration from a year ago in the financial conditions of crop producers (Chart 2). In contrast, nearly half of respondents indicated that financial conditions have improved over the past year for borrowers that rely on crops as inputs, such as cattle, hog, poultry and dairy producers.

**Chart 1: Tenth District Farm Income and Capital Spending**



\*Bankers responded to each item by indicating whether conditions during the current quarter were higher than, lower than, or the same as in the year-earlier period. The index numbers are computed by subtracting the percentage of bankers who responded "lower" from the percentage who responded "higher" and adding 100.

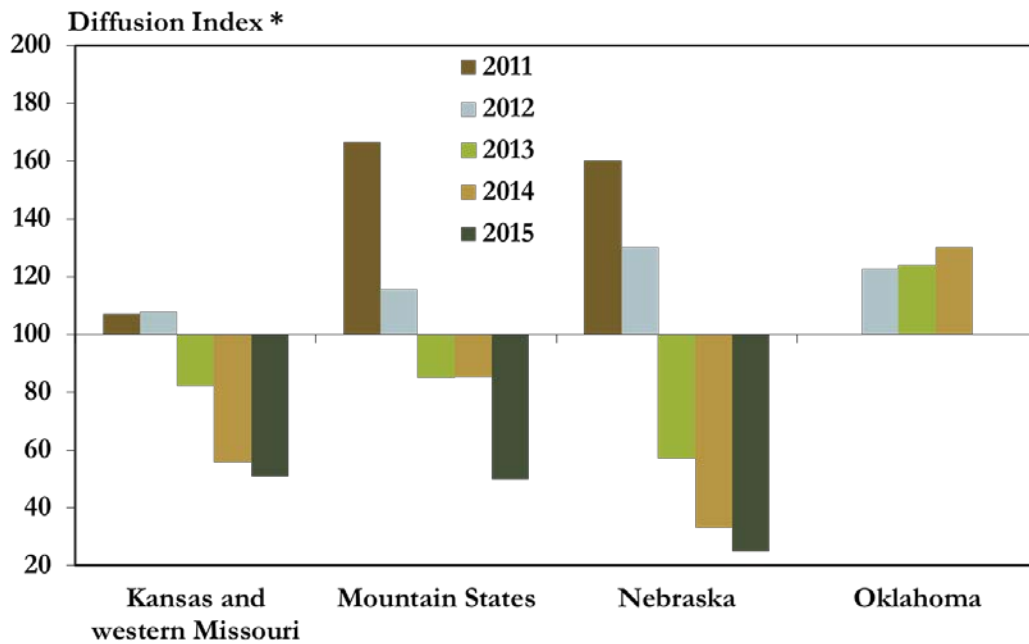
**Chart 2: Overall Change in Financial Conditions, Relative to One Year Ago**



On a more regional level, farm income declined in all District states except Oklahoma. In Oklahoma, farm income has steadily improved over the last three years due to revenue from mineral rights and cattle production but remained unchanged in the first quarter of 2015 (Chart 3). Although farm income held steady in Oklahoma, a greater portion of agricultural lenders reported farm income was lower than a year ago in Kansas, western Missouri, Nebraska and the Mountain States (Colorado, northern New Mexico and Wyoming).

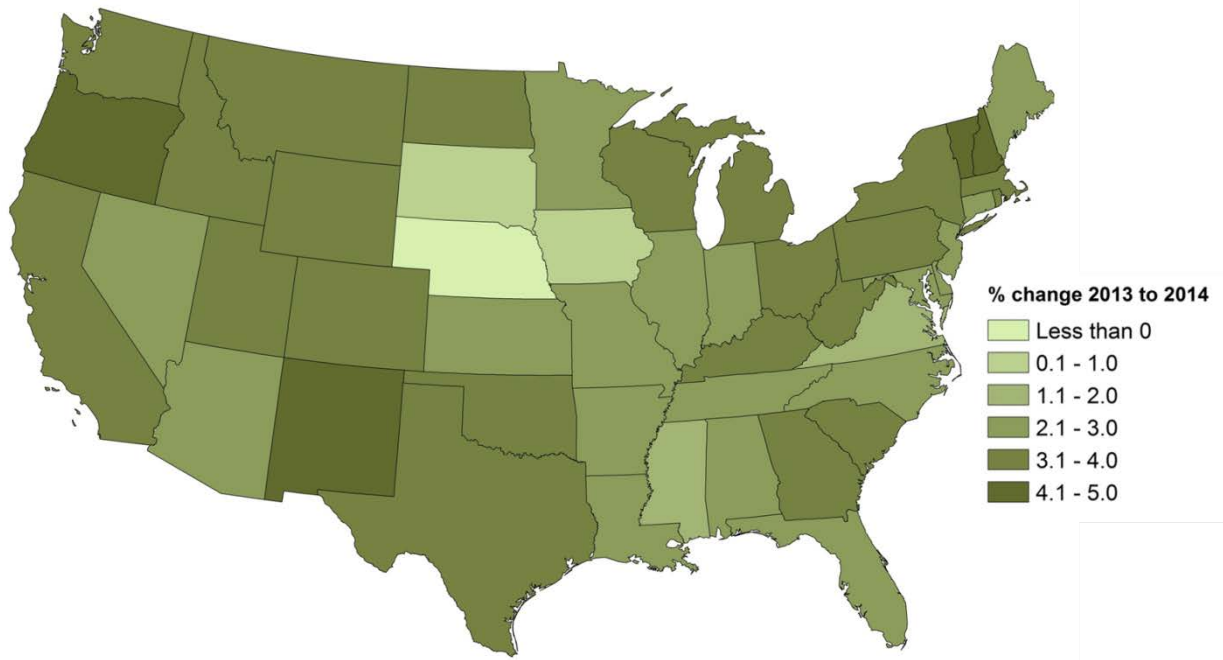
Strains on the farm economy have begun to affect the overall economic outlook in some states. Through 2014, growth in per capita personal income was notably smaller in states most heavily concentrated in crop production (Map). For example, per capita personal income expanded less than 1.0 percent in Iowa and South Dakota and declined slightly in Nebraska. These growth rates were significantly weaker than the national average of 3.9 percent from 2013 to 2014. Ninety-four percent of survey respondents expect farm income to remain the same or decline further in the next three months. Additional declines in farm income could continue to create economic challenges in states heavily dependent on crops.

**Chart 3: Tenth District Farm Income, First Quarter**



\*Bankers responded to each item by indicating whether conditions during the current quarter were higher than, lower than, or the same as in the year-earlier period. The index numbers are computed by subtracting the percentage of bankers who responded "lower" from the percentage who responded "higher" and adding 100.

**Map: Per Capita Personal Income**

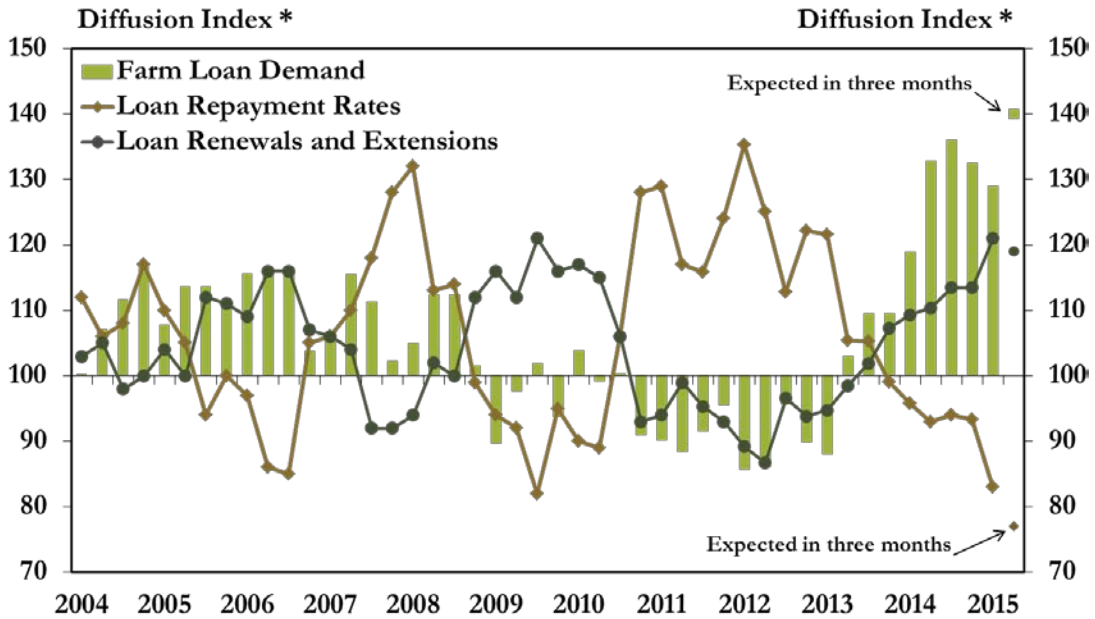


### **Farm Loan Demand and Credit Conditions**

The continued decline in farm income boosted demand for new loans as well as renewals and extensions on existing loans (Chart 4). During years of historically high farm income, some farmers were able to self-finance. However, as working capital has declined due to high production costs and lower crop revenues, more producers have needed external financing to pay for operating expenses and capital purchases. Loan demand was also supported by livestock loans on feeder cattle, which still command historically high prices. In fact, demand for non-real estate farm loans increased across all District states in the first quarter and is expected to remain elevated over the next three months (Chart 5). If expectations are met, the survey measure of loan demand would be the highest since the survey began in 1980.

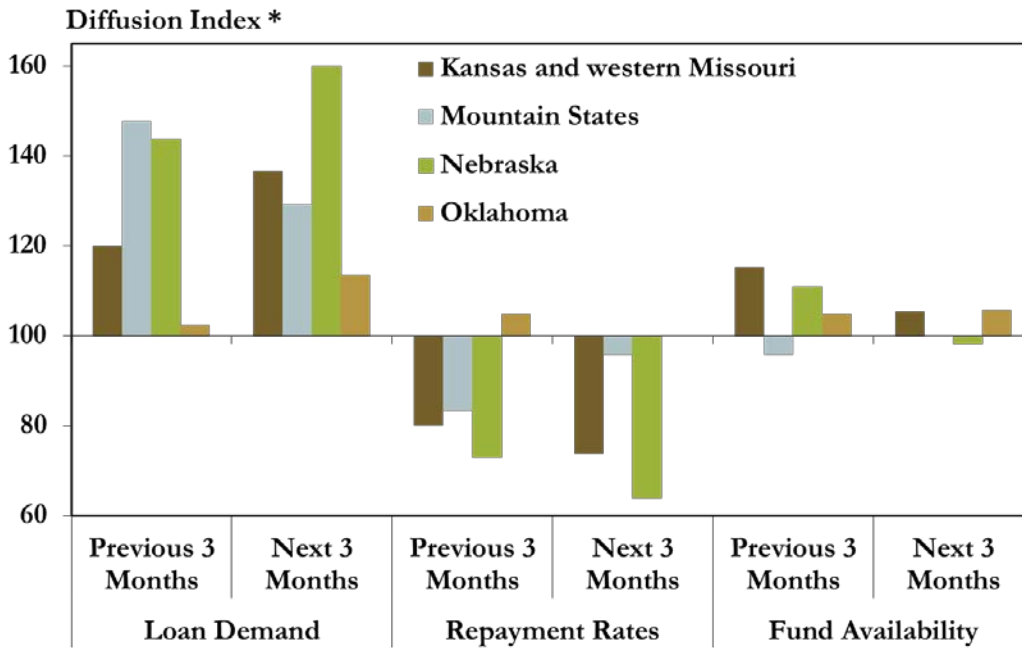


**Chart 4: Tenth District Credit Conditions**



\*Bankers responded to each item by indicating whether conditions during the current quarter were higher than, lower than, or the same as in the year-earlier period. The index numbers are computed by subtracting the percentage of bankers who responded "lower" from the percentage who responded "higher" and adding 100.

**Chart 5: Tenth District Credit Conditions, First Quarter 2015**

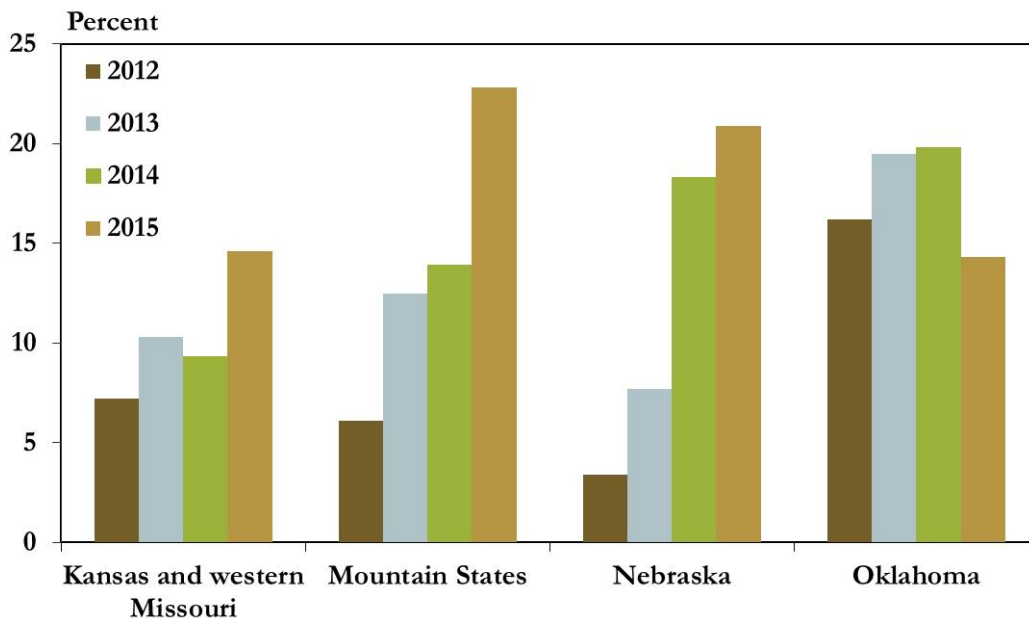


\*Bankers responded to each item by indicating whether conditions during the current quarter were higher than, lower than, or the same as in the year-earlier period. The index numbers are computed by subtracting the percentage of bankers who responded "lower" from the percentage who responded "higher" and adding 100.

Alongside reduced farm income and higher loan demand, loan repayment rates have declined significantly. More than 26 percent of survey respondents reported that loan repayment rates declined in the first quarter of 2015, compared to 17 percent in the previous quarter. Moreover, the expectation for loan repayment rates in the next three months was the lowest since 2003, and, if expectations hold, could be the first time in several years that repayment rates decline in all District states.

The deterioration in loan repayment rates has not yet affected fund availability, which increased slightly in the first quarter. Of banks responding to the survey, 98.8 percent indicated that no loans were reduced or refused due to a shortage of funds. Still, collateral requirements remained the same or increased slightly for most farm loans throughout the District due to concerns over reduced working capital and annual increases in carry-over debt (Chart 6). Bankers also expressed concerns over increased debt-to-asset ratios, especially for younger farmers with high borrowing needs.

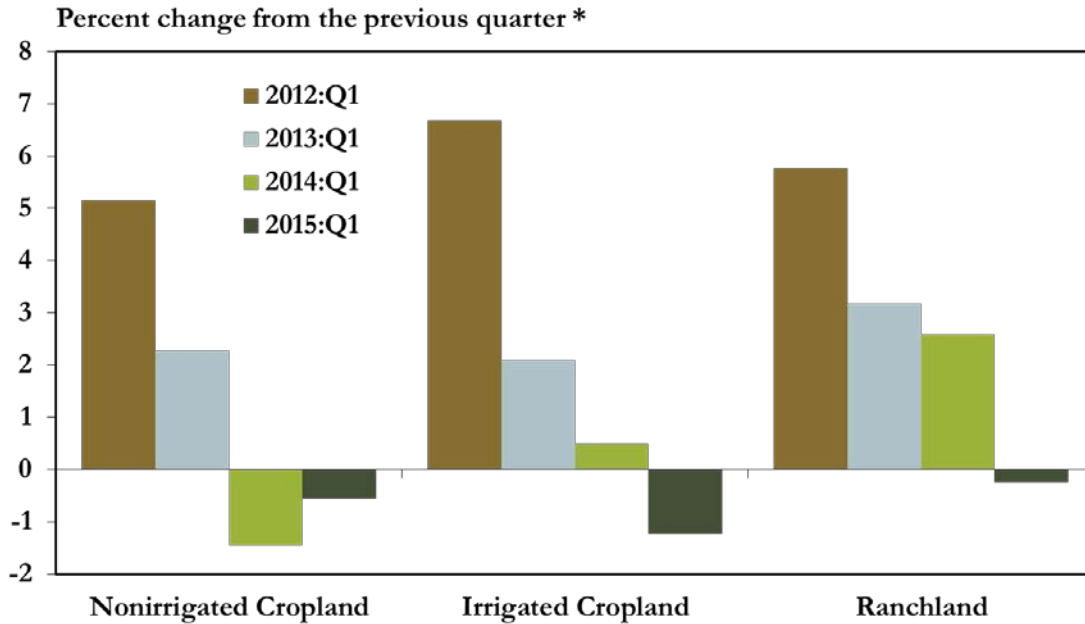
**Chart 6: Borrowers with an Increase in Carry-over Debt, First Quarter**



## Farmland Values

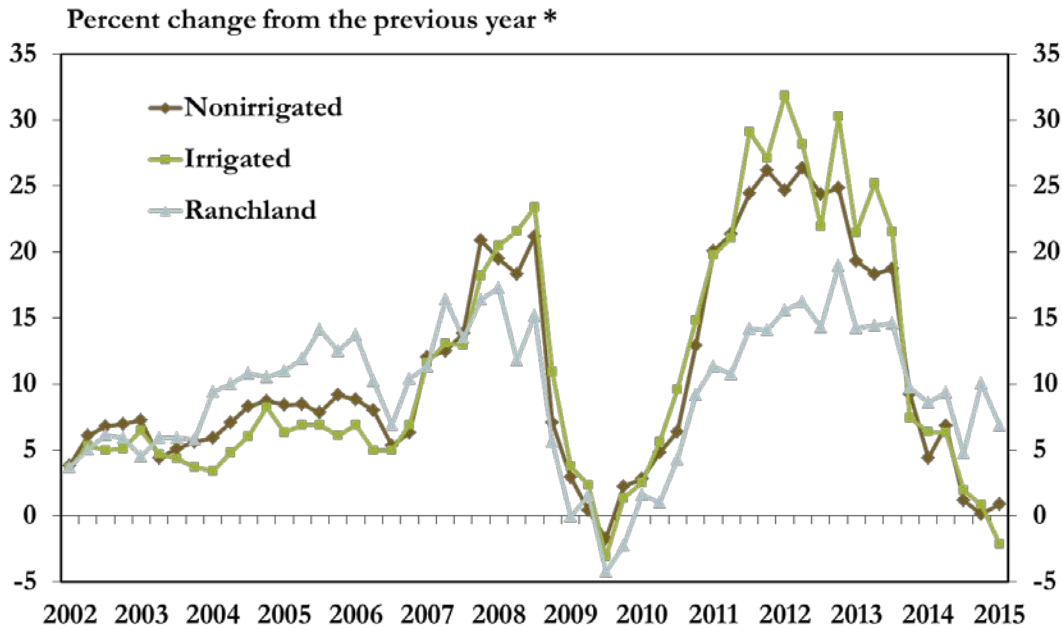
Amid further declines in farm income, bankers reported that Tenth District cropland values edged down in the first quarter (Chart 7). In fact, irrigated cropland values declined in the first quarter, falling slightly below year-ago levels for the first time in more than five years (Chart 8). The value of nonirrigated cropland also declined, but was holding just above year-ago levels. Similar to previous surveys, Nebraska posted some of the largest price declines while cropland values in Oklahoma and the Mountain States remained the most resilient (Table). Looking ahead, very few bankers expect price appreciation and more than a quarter of survey respondents expect cropland values to decline further in the next three months (Chart 9). Still, a majority of bankers anticipates that cropland values will hold steady, partly due to a limited supply of farms for sale.

**Chart 7: Tenth District Farmland Values, Quarterly Gains**



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

**Chart 8: Tenth District Farmland Values, Annual Gains**



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

**Table: Tenth District Farmland Value Gains by State, First Quarter 2015**

Percent change from previous year \*

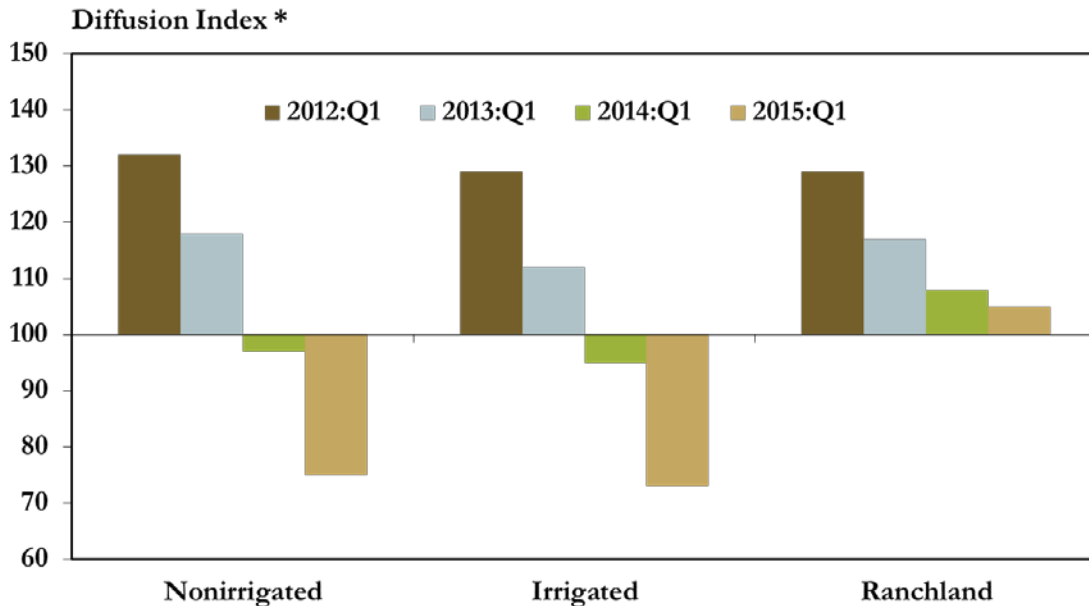
	Nonirrigated	Irrigated	Ranchland
Kansas	0.2	-2.4	5.0
Missouri	0.9	n/a**	3.9
Nebraska	-0.6	-3.6	10.1
Oklahoma	6.8	5.6	5.3
Mountain States***	6.4	2.7	11.4
Tenth District	0.9	-2.1	6.8

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

\*\* Not reported due to small sample size.

\*\*\* Mountain States include Colorado, northern New Mexico and Wyoming, which are grouped because of limited survey responses from each state.

**Chart 9: Expected Trend in Tenth District Farmland Values**



\*Bankers responded to each item by indicating whether they expected land values would increase, decrease, or remain the same. The index numbers are computed by subtracting the percentage of bankers who responded "decrease" from the percentage who responded "increase" and adding 100.

Tenth District ranchland values generally held firm in the first quarter of 2015 and year-over-year gains remained strong. In contrast to the crop sector, where lower incomes were starting to place downward pressure on cropland values, bankers reported profits in the cattle sector were continuing to support high ranchland values. Ranchland in Nebraska and the Mountain States appreciated the most during the past year with somewhat smaller gains reported in Kansas and Oklahoma, due in part to dry pasture conditions. Looking ahead, bankers expect continued strength in the cattle sector and increasing cattle inventories will sustain demand, and prices, for ranchland.

**Conclusion**

Low crop prices placed added stress on net farm incomes and contributed to weaker credit conditions in the first quarter. As farm incomes fell, cropland values moderated and more producers depended on financing to cover operating expenses. Sufficient funds were available to meet increases in loan demand, but declines in repayment rates as well as slight increases in carry-over debt, collateral requirements and loan renewals and extensions suggest that credit quality may become more of a concern moving forward.

## **Federal Reserve Bank of Kansas City: Agricultural Finance Databook (April 2015)**

“Loan Volumes Continue Rising as Lower Farm Incomes Persist”

By Nathan Kauffman, Assistant Vice President and Omaha Branch Executive  
and Cortney Cowley, Economist

Loan volumes for almost all farming purposes rose at commercial banks, as many producers contended with tighter profit margins. Persistently low crop prices and elevated input costs continued to increase farmers’ short-term financing needs. High prices for feeder cattle further boosted loan volumes in the livestock sector. Agricultural input costs were expected to decline in 2015, but cash receipts were expected to drop further, keeping profit margins tight for many producers. Lower farm incomes kept loan demand strong throughout the Federal Reserve Districts surveyed, while loan repayment rates were slightly weaker. Despite reduced farm incomes and increased debt outstanding, loan delinquency rates declined, and profits increased slightly at most agricultural banks. Lower farm incomes also affected farmland values, but the changes varied widely among states. Farmland values in crop-intensive states decreased slightly, while demand strengthened for good-quality farmland and rangeland in states more concentrated in livestock production or with wealth generated from other sources, such as oil and natural gas exploration.

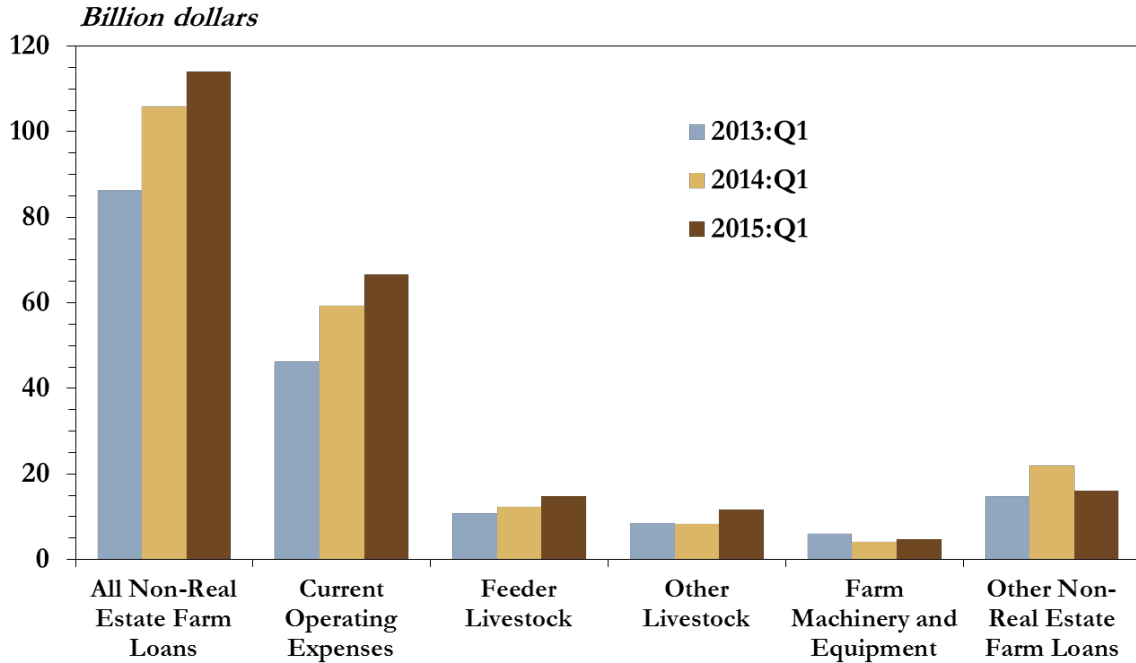
### **Section A - First Quarter National Farm Loan Data**

Agricultural lending continued to grow in the first quarter of 2015. The national Survey of Terms of Bank Lending to Farmers, conducted during the first full week of February, indicated the total volume of non-real estate farm loans was \$8.1 billion more than in the same period in 2014 (Chart 1). Overall growth in loan volume was driven by increased borrowing for current operating expenses and livestock purchases. Current operating loan volumes grew for the third year in a row following several quarters of depressed crop prices (Charts 2 and 3). Demand for operating loans could remain elevated as futures markets for fall crops show prices are expected to remain low due to the possibility of another record harvest.

The USDA projected plantings report showed soybean acreage could rise to record levels in 2015. Corn acreage was expected to decline for the third consecutive year, but the corn crop was still projected to be the third largest in history. As in 2014, large corn and soybean harvests

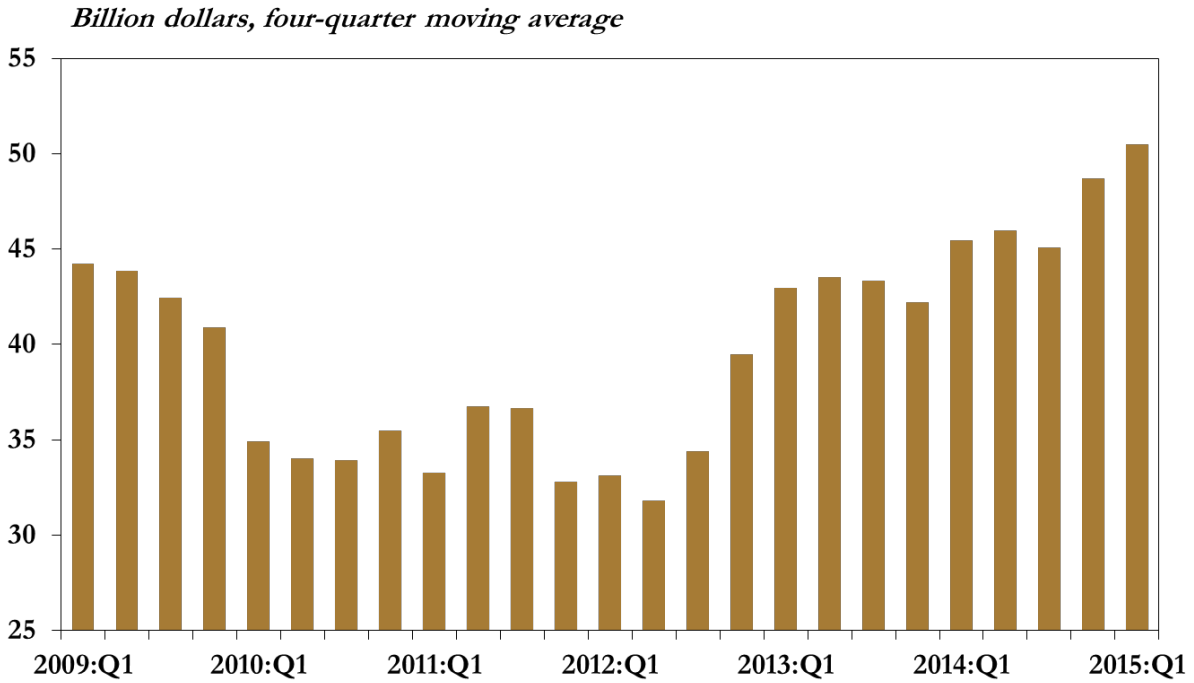
could keep crop prices comparatively low, which would further weaken cash receipts for fall crops (Chart 4). This year, input costs were expected to decline less than crop cash receipts, which could put additional downward pressure on farm income and further increase the need for financing to cover expenses.

**Chart 1: Non-Real Estate Farm Loan Volumes by Purpose**



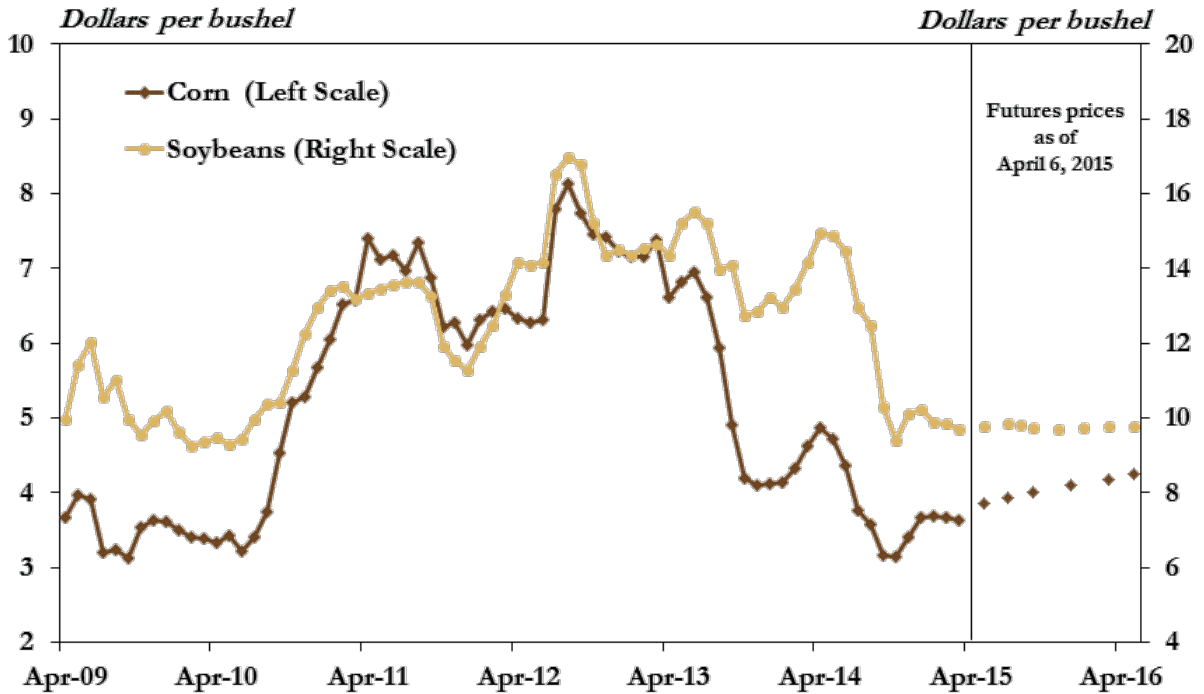
Source: Agricultural Finance Databook, Table A.3

**Chart 2: Current Operating Loan Volume**



Source: Agricultural Finance Databook, Table A.3

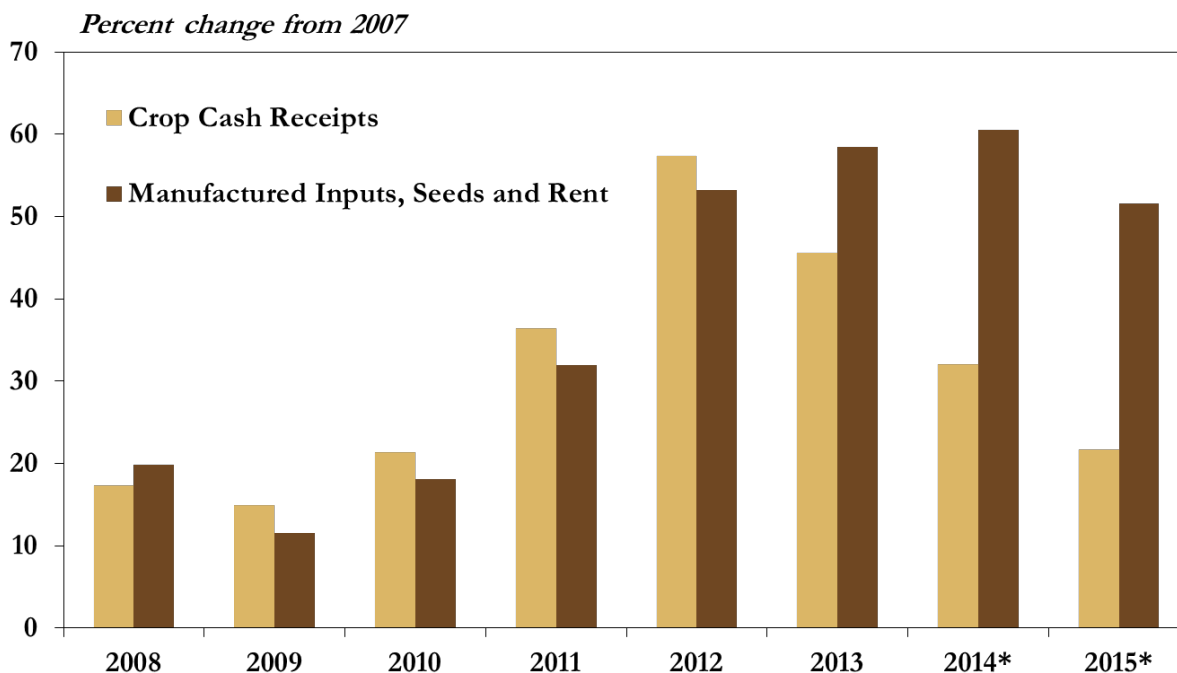
**Chart 3: U.S. Corn and Soybean Prices**



Sources: *The Wall Street Journal* and Chicago Board of Trade



**Chart 4: U.S. Crop Cash Receipts and Input Costs**

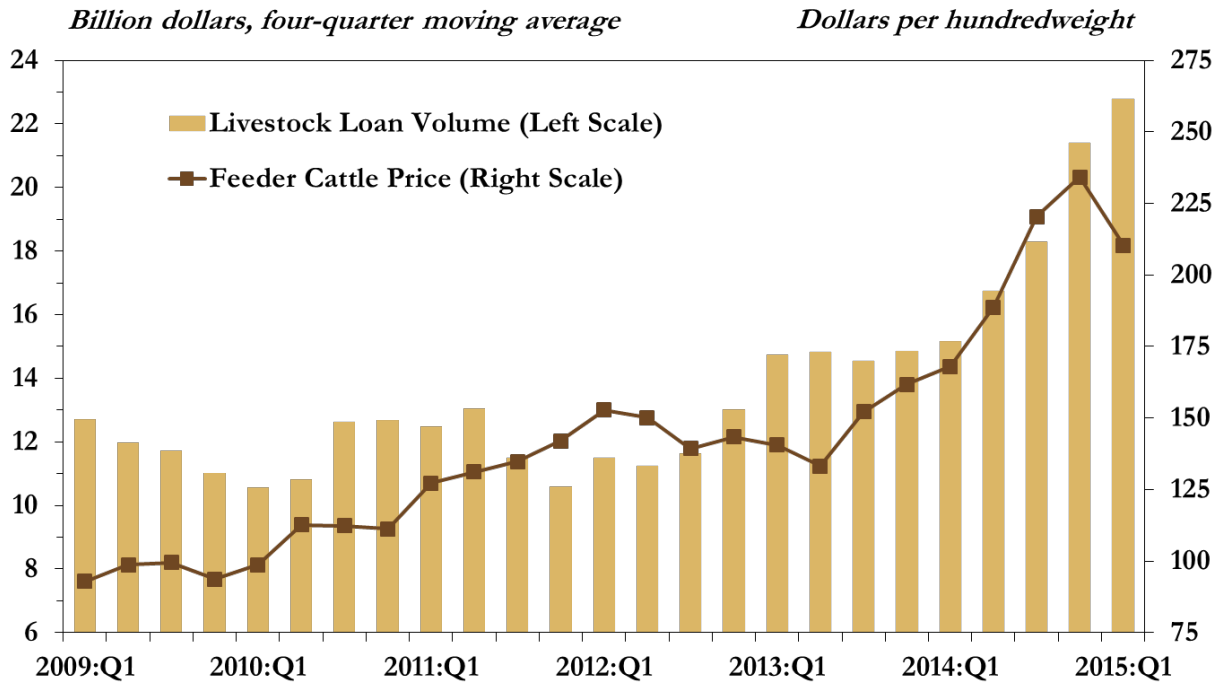


Source: USDA

Livestock loan volumes increased in the first quarter of 2015 as profit margins in the cattle sector reacted to another quarter of strong prices for feeder cattle. Profit margins tightened for feedlot operators, while cow/calf producers experienced better margins due to high cattle prices and low feed costs. Lending for feeder livestock increased more than 20 percent as producers rebuilt their herds and feedlot operators dealt with increasing costs (Chart 5). Following several years of herd liquidation, in 2014, cattle operations switched from liquidation to expansion and the U.S. cattle herd grew by 2.1 percent. As cattle inventories rebounded slightly, feeder cattle prices softened in the first quarter of 2015 but remained historically high. High feeder cattle prices continued to sustain livestock loan volumes but could moderate.

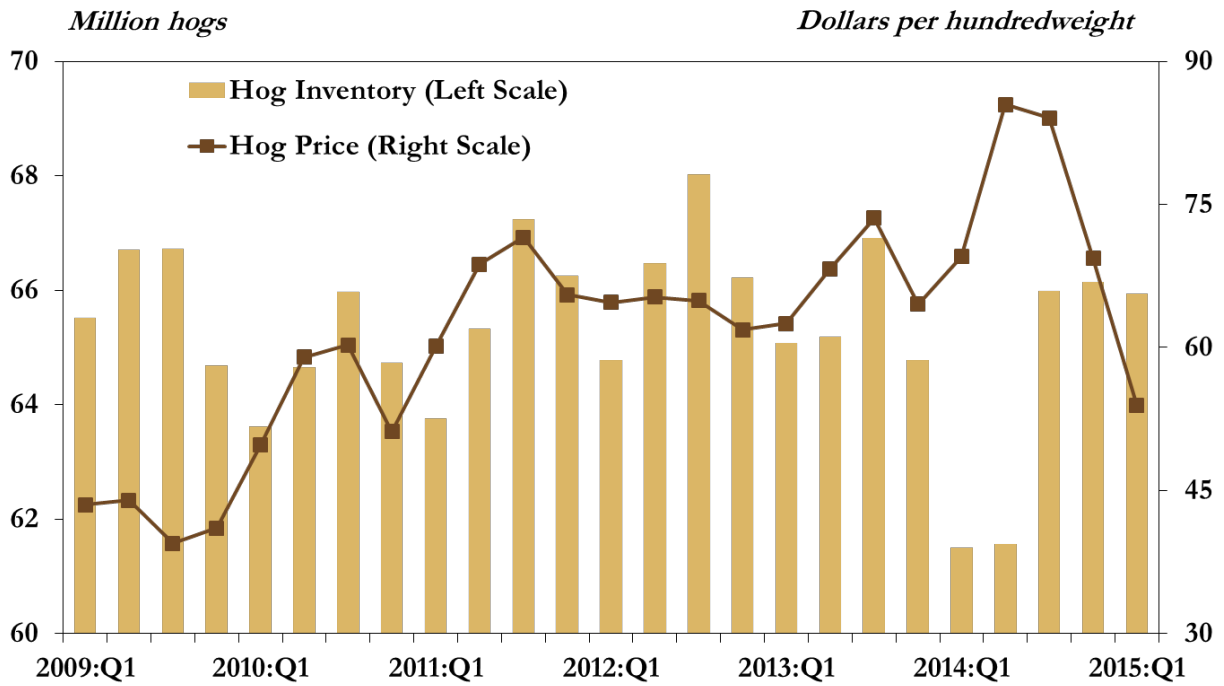
In the hog sector, loan volumes rose as declining hog prices resulted in reduced profit margins. The drop in hog prices over the last two quarters was primarily the result of a growing U.S. hog herd. Hog inventories began rebounding in the second half of 2014, following massive reductions during the porcine epidemic diarrhea virus outbreak (Chart 6). Since June 2014, hog prices have dropped 40 percent, causing hog producers to depend more on lending to maintain inventories and cover operating expenses.

**Chart 5: Livestock Loan Volume and Feeder Cattle Price**



Sources: Agricultural Finance Databook, Table A.3, USDA

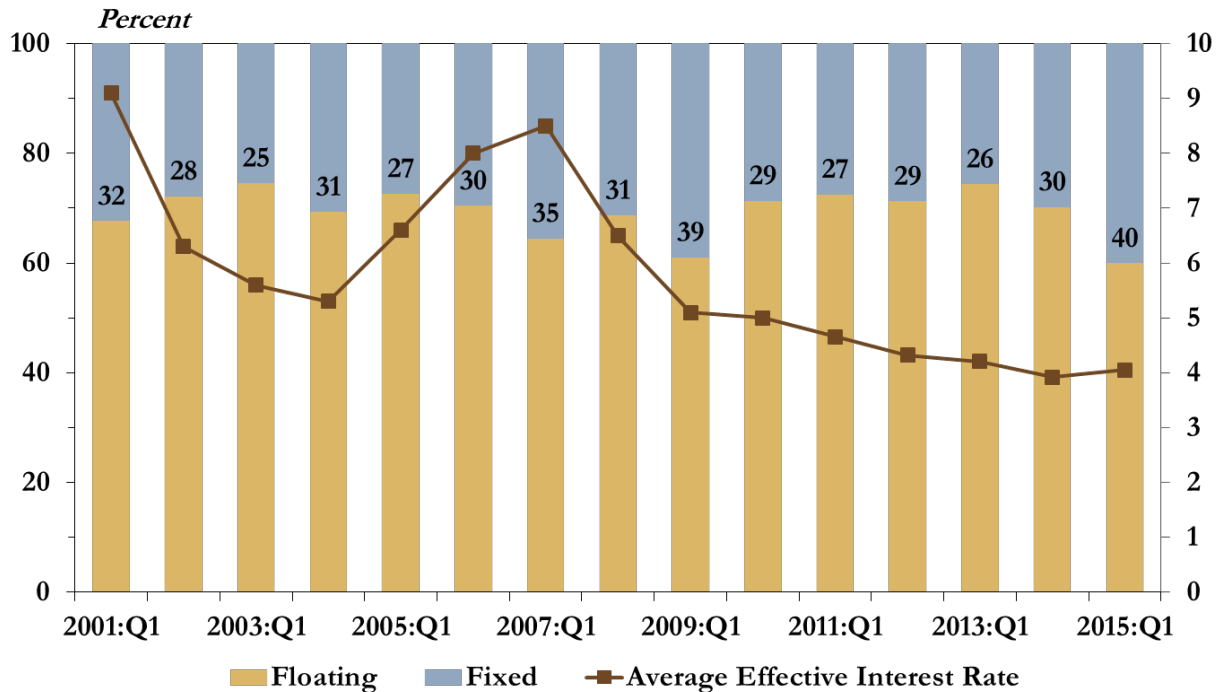
**Chart 6: Hog Inventory and Price**



Source: USDA, Haver Analytics

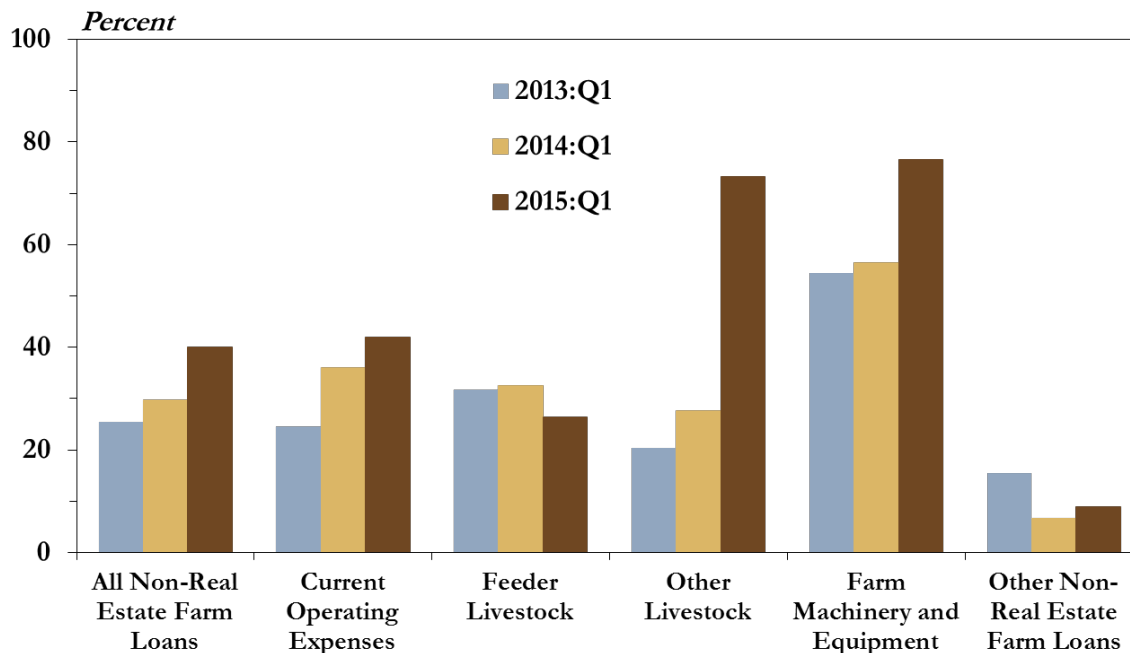
Although farm sector lending has continued to rise, the share of farm loans made with fixed interest rates increased notably in the first quarter of 2015. Between the first quarters of 2013 and 2015, the share of all non-real estate farm loans with fixed interest rates rose from 26 percent to 40 percent, respectively (Chart 7). This shift from floating to fixed interest rates was most pronounced for livestock loans, excluding feeder livestock, and farm machinery and equipment loans (Chart 8). Interest rates on non-real estate farm loans increased modestly in the first quarter of 2015, after declining steadily since 2007, and this uptick could have prompted more farmers to further “lock-in” at historically low rates.

**Chart 7: Shares of Non-Real Estate Bank Loans with Floating and Fixed Interest Rates Made to Farmers**



Sources: Agricultural Finance Databook, Tables A.5 and A.6

**Chart 8: Shares of Non-Real Estate Farm Loans with Fixed Interest Rates by Purpose**

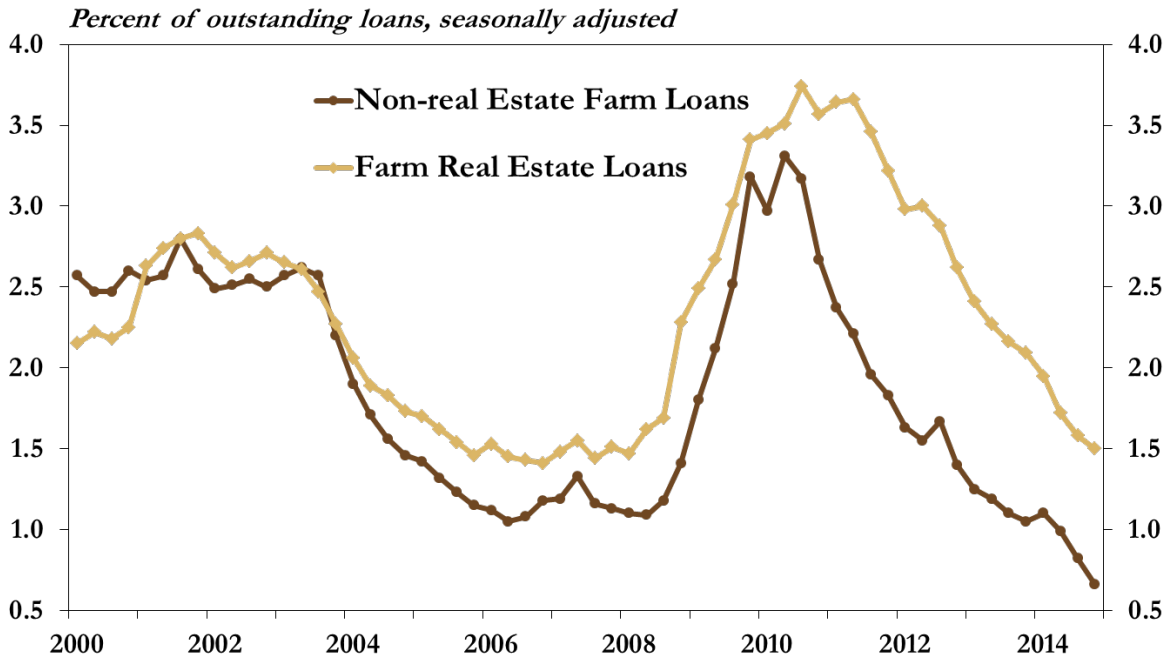


Source: Agricultural Finance Databook, Table A.6

### Section B - Fourth Quarter Call Report Data

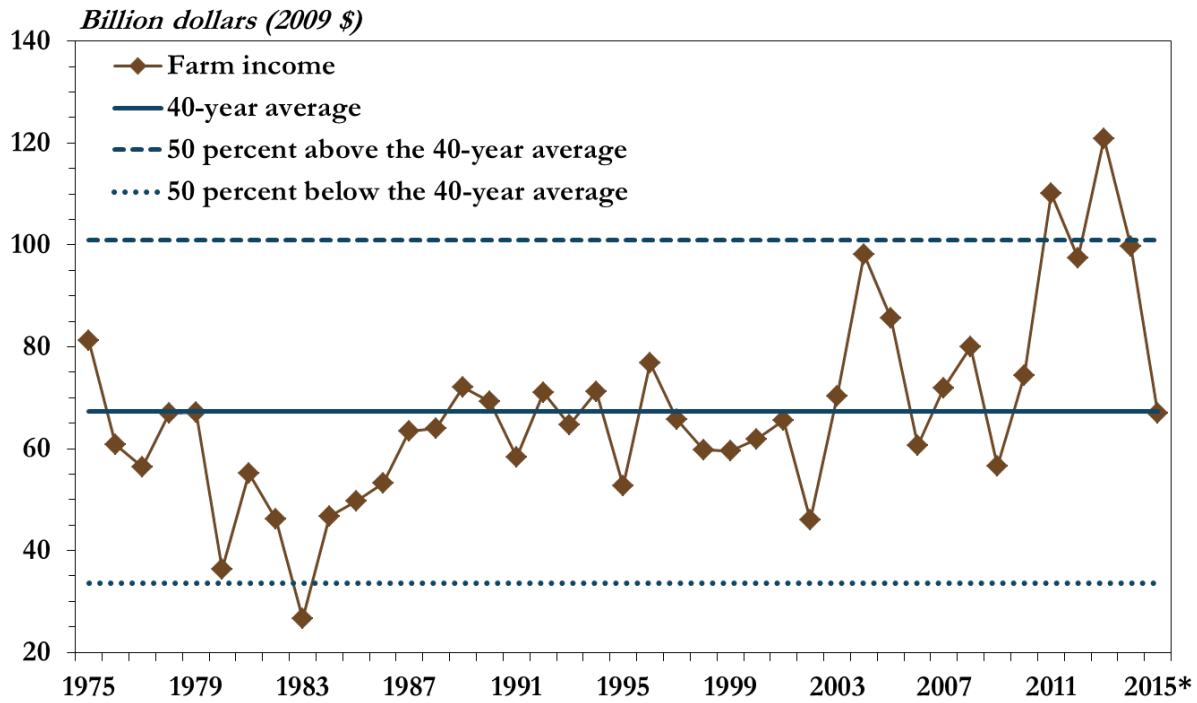
Despite declines in farm income over the last several quarters, delinquency rates on both farm real estate and non-real estate loans declined in late 2014 (Chart 9). Although incomes have dropped substantially from recent highs, they were not yet expected to fall below the average of the past 40 years (Chart 10). In addition, extremely low incomes (i.e., 50 percent below the long-run average) have not been observed since 1983 and, in the four years prior to 2015, incomes were extraordinarily high. Multiple years of historically high incomes helped strengthen balance sheets and better prepare producers for the effects of declining prices seen more recently. As a result of borrowers' strong financial positions, credit conditions have remained solid, even as debt in the farm sector has increased.

**Chart 9: Delinquency Rates on Farm Loans**



Source: Federal Reserve Board of Governors

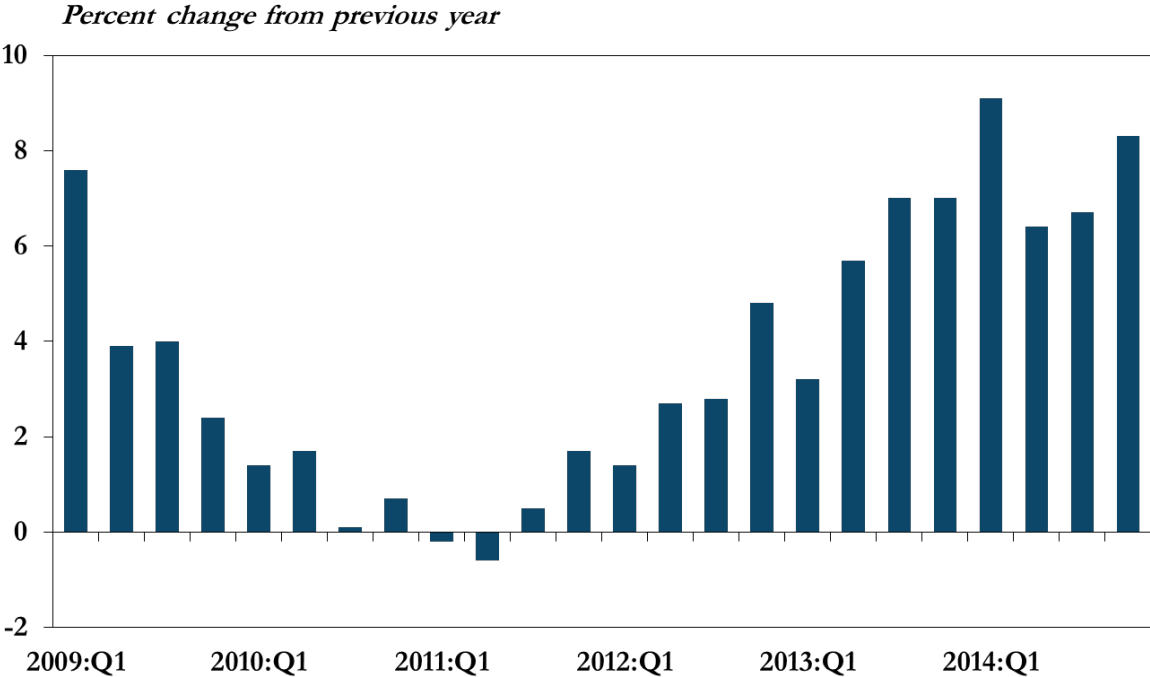
**Chart 10: Real Net Farm Income**



Source: USDA

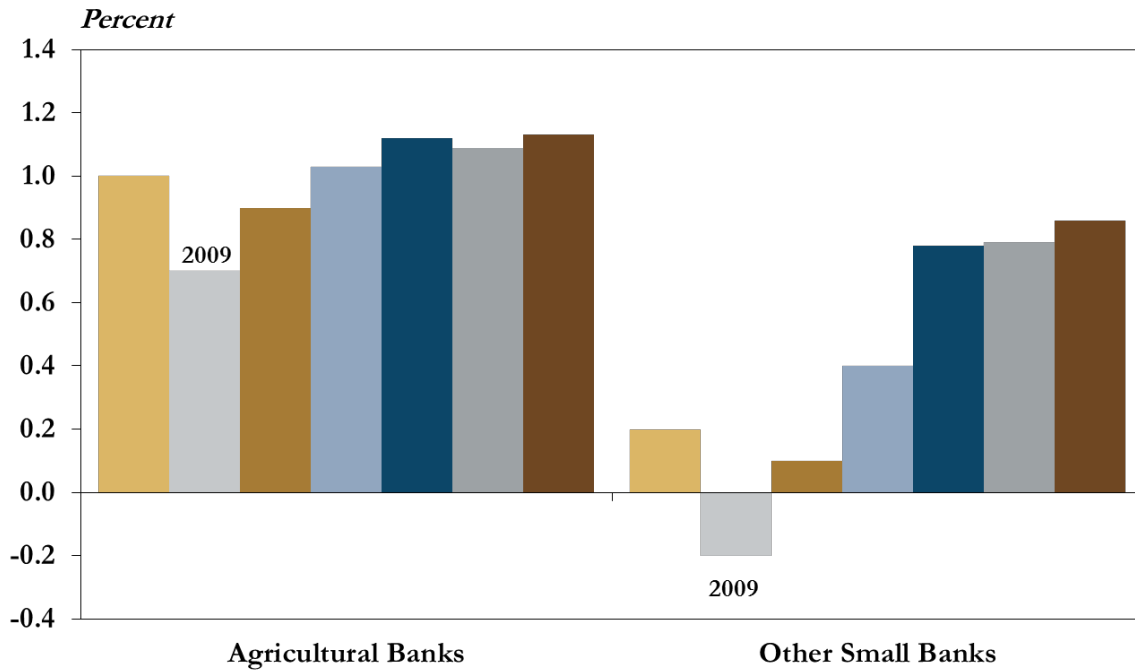
Commercial bank call report data showed that farm sector lending at commercial banks has, in fact, continued to rise and profitability at both agricultural and other small banks has remained relatively strong. In the fourth quarter of 2014, farm debt outstanding at commercial banks grew 8.3 percent from 2013 (Chart 11). Loan growth was driven by a 6.8 percent increase in the volume of loans secured by farm real estate and a 9.9 percent increase in the volume of loans to finance agricultural production. At the same time, the percentage of nonperforming farm loans and net charge-offs declined. Improved farm sector loan performance supported a slight rise in profits at agricultural banks. At the end of the fourth quarter, the return on assets at banks with an above-average share of loans made to the agricultural sector rose from 1.09 percent in 2013 to 1.13 percent in 2014 (Chart 12).

**Chart 11: Farm Debt Outstanding at Commercial Banks**



Source: Agricultural Finance Databook, Table B.1

**Chart 12: Rate of Return on Assets, Fourth Quarter 2014**

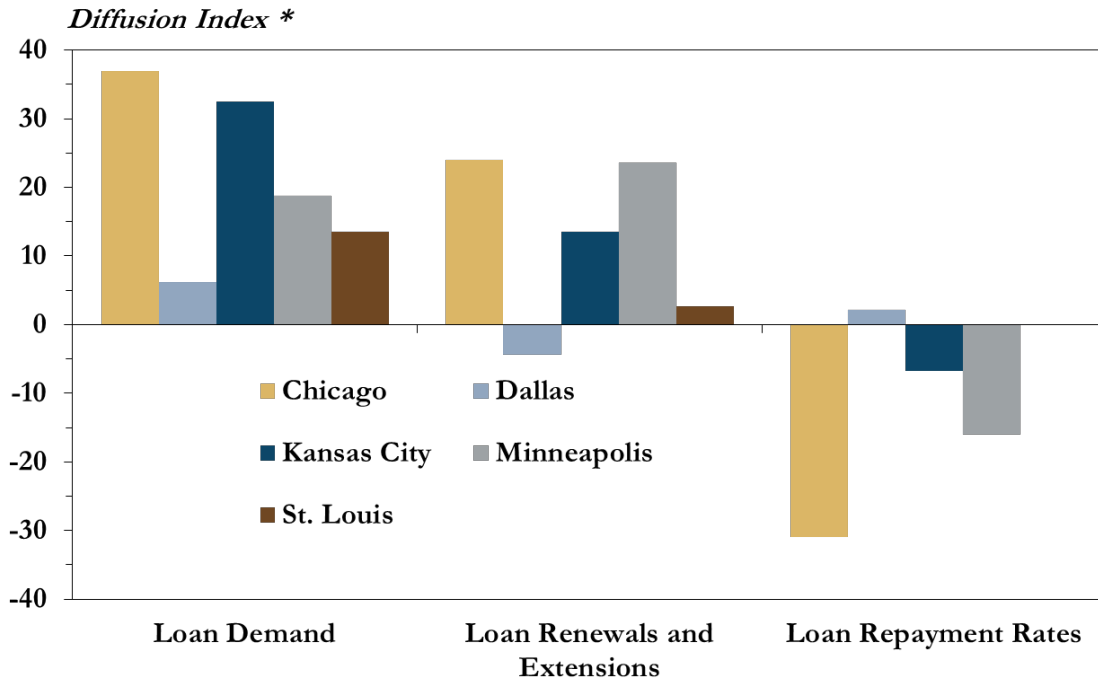


Source: Agricultural Finance Databook, Table B.7

### **Section C - Fourth Quarter Regional Agricultural Data**

Although loan delinquency rates remain low, Federal Reserve District agricultural survey data showed slight deteriorations in some credit conditions across some regions. In most districts, demand for operating loans increased, loan repayment rates declined and more requests were made for loan renewals and extensions (Chart 13). Declines in farm income also pushed down household and capital spending in all districts. Survey respondents indicated that funds were available for farm loans but noted a slight increase in collateral requirements. Looking ahead, bankers in the Chicago and Dallas Federal Reserve Districts expected lending to increase for cattle and operating expenses next quarter, while loan volume was expected to decrease for crop storage and farm machinery.

**Chart 13: Selected Agricultural Credit Conditions, Fourth Quarter 2014**



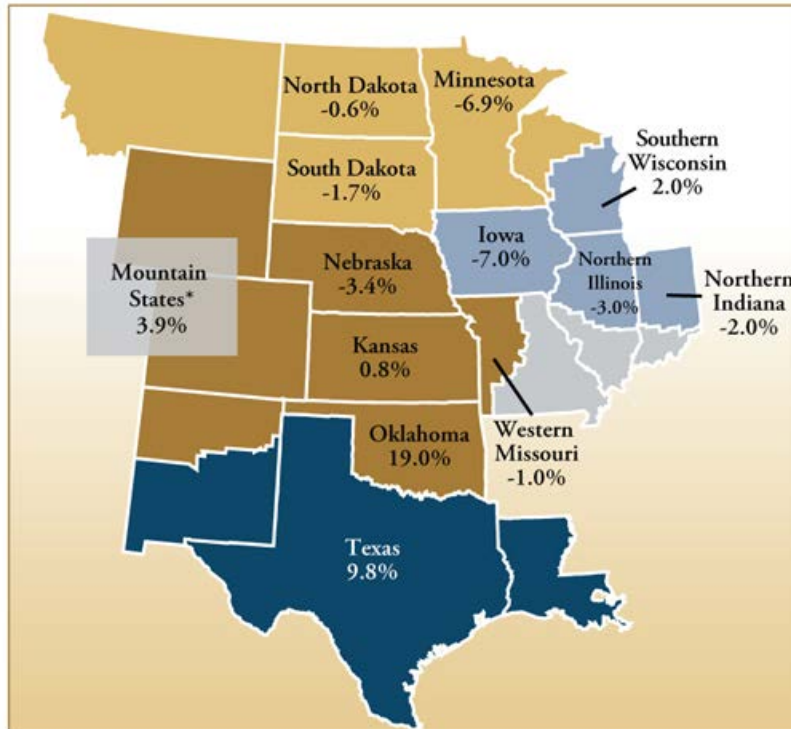
Source: Agricultural Finance Databook, Table C.1

Depressed farm incomes have begun to put downward pressure on farmland values, particularly in areas devoted to crop production. Farmland values declined in states throughout the Corn Belt due to lower crop prices, while values rose in states relatively more dependent on cattle, oil and natural gas production (Map). In the Dallas Federal Reserve District for example, farmland values strengthened for all types of farmland, while dryland and irrigated farmland values declined or increased at a slower rate in the Minneapolis and Kansas City Districts. Ranchland values continued to climb in all districts, as feeder cattle prices supported strong profit margins for cow/calf operations. As demand remained high and supply became more limited for good-quality land, the range of prices between good and marginal land also increased. A majority of survey respondents, however, expected farmland values to remain steady or decline in 2015.



## Map: Value of Nonirrigated Cropland, Fourth Quarter 2014

*Percent change from previous year*



\* Mountain States include Wyoming, Colorado and northern New Mexico, which are grouped because of limited survey responses from each state.

Source: Federal Reserve District Agricultural Credit Surveys (Chicago, Dallas, Kansas City and Minneapolis)

### Conclusion

As profit margins on farms tightened, producers borrowed more and reduced capital spending in late 2014 and early 2015. However, farm income has yet to fall below long-term historical averages, and recent data have shown only minimal declines in credit conditions. Relatively strong credit conditions have been partially supported by extraordinary profits among crop producers the last several years and, more recently, record profits for cow/calf producers. If the declining trend in farm income persists, however, agricultural credit conditions could weaken more noticeably in the future.