Agricultural Lender Survey

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Results:
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Survey Summary and Highlights

- More lenders reported farmland values decreasing in their service territories.

- Lenders reported an increase in non-performing loans for total farm loans when analyzed by loan type.

- Lenders reported an increase in non-performing loans for the crop sectors of corn and soybeans, wheat, and cotton.

- Survey respondents disagree over direction of spread over cost of funds in the long-term. Forty three percent of respondents expect spread over cost of funds to increase, 35% expect it to stay the same, and 22% expect it to decrease. This reflects uncertainty in interest rates and competition in the agricultural lending sector.

- Expectations for interest rates continue to look for an increase in the short- and long-term. However, survey respondents have been expecting an increase in the short-term since Fall 2013.

- Low commodity prices combined with rising input costs have agricultural lenders concerned about the financial health of farmers in the future.

- Lenders reported softening of cash rents along with the decrease in farmland prices.

The Department of Agricultural Economics at Kansas State University conducts a semi-annual survey of Agricultural Lenders to gage the recent, short term and long term future assessment of the credit situation for production agriculture. The results provide a measure of the health of the sector in a forward looking manner.

Kansas State University has worked with the National Agricultural Credit Committee (NACC) and the Federal Reserve Bank of Kansas City in developing the questions and assessing the need for this information.

A list of 1,500 commercial lending institutions who are listed with agriculture as their main specialty was obtained from the FDIC database as well as 92 Farm Credit institutions. This list was then internet searched for the emails of each of the lending institutions. The survey was sent to 500 lending institutions including the Farm Credit System, commercial lending institutions who have a specialty in agriculture according to the FDIC, vendor finance companies and insurance companies.

Each institution surveyed provided their sentiment on the current and expected state of four key areas: (1) farm loan interest rates; (2) spread over cost of funds; (3) farm loan volumes; (4) non-performing loan volumes; and (5) agricultural land values. Within each of these key areas, different loan types were assessed (farm real-estate, intermediate and operating loans) as well as the different agricultural sectors (corn and soybeans, wheat, beef, dairy, etc.).

The Spring 2015 survey had 39 lending institutions respond and the Fall 2014 survey had 43 lending institutions respond.

The survey responses are summarized using a diffusion index. This index is calculated by taking the percentage of those indicating increase minus the percentage of those indicating decrease plus 100. Therefore, an index above (below) 100 indicates respondents expect or experienced an increase (decrease) in the measure of interest. For example, Figure 3 illustrates that the index for the Spring 2014 expected long-term farm real estate loan interest rates equals 192. This number can be described as 92% more respondents felt farm real estate loan interest rates will go up in the long run than those who felt interest rates would go down.

Figure 1, Demographics of Survey Respondents

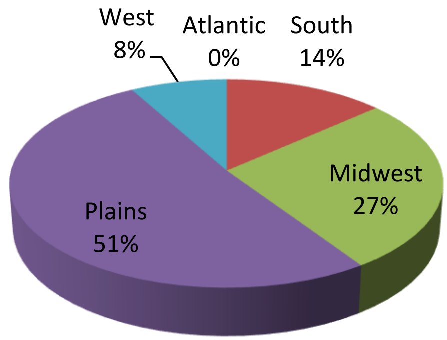


Figure 2, Loan Volume by Region

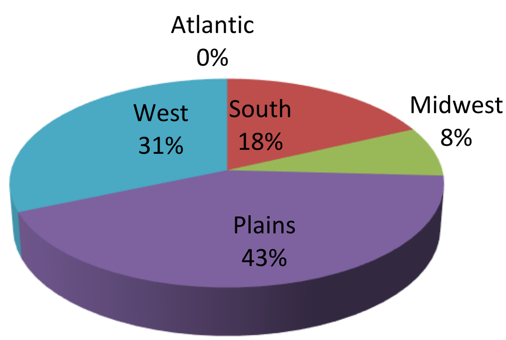
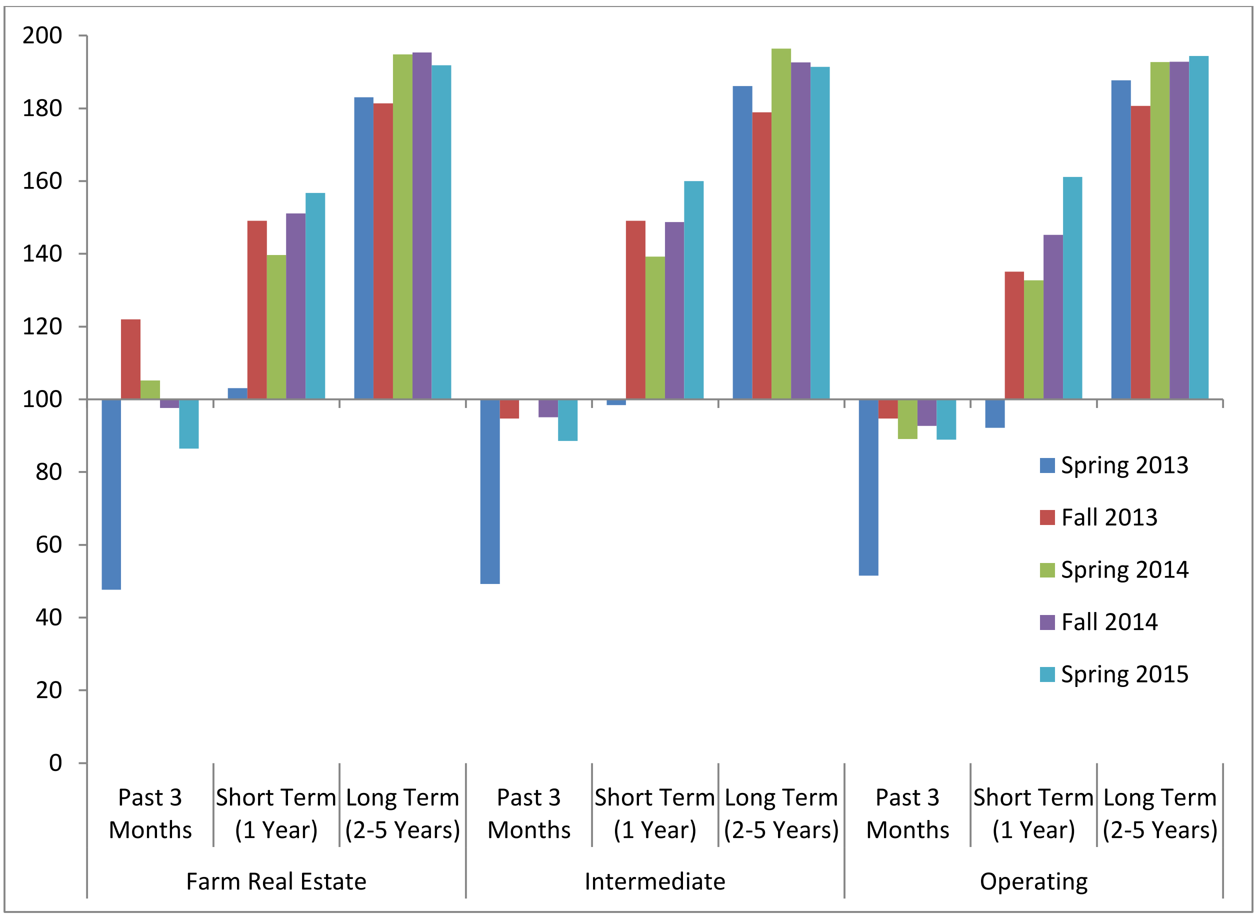


Figure 1 shows the demographics of the Spring 2015 survey respondents by primary service territory. The five territories are: Midwest, West, Atlantic, South and Plains. Table 1 has a list of the states in each region. Fifty one percent of survey respondents came from the Plains region while 27%, 8%, 0% and 14% came from the Midwest, West, Atlantic, and South regions, respectively. Nine percent of respondents indicated their respective lending institution was national in scope. Total agricultural loan volume of all respondents is estimated at $26 billion. The largest lending institution to respond had $9 billion in commitments and the smallest had $10 million in agricultural loans. The Plains region had the most respondents, (Figure 2) and accounted for 43% of agricultural loan volume.

Figure 3 shows the survey results for loan interest rates from Spring 2013 to Spring 2015. Figure 3 shows the continued expectation of higher interests in the future. Past expectations of higher interest rates have not been realized at the present time. A main determinant in the direction of interest rates is the Federal Reserve System, which has yet to announce future policy to increase the federal funds rate from its near zero position at present time. Over the past three months, more respondents indicated a decrease in interest rates for all three categories. However, the short- and long-term expectations are for interest rates to increase. Survey respondents are consistent for the long term expectation of interest rates as not one respondent indicated interests rates would decrease further. Survey respondents' short-term expectations in Fall 2013 were for interest rates to increase; however, almost two years later those expectations have not been realized.

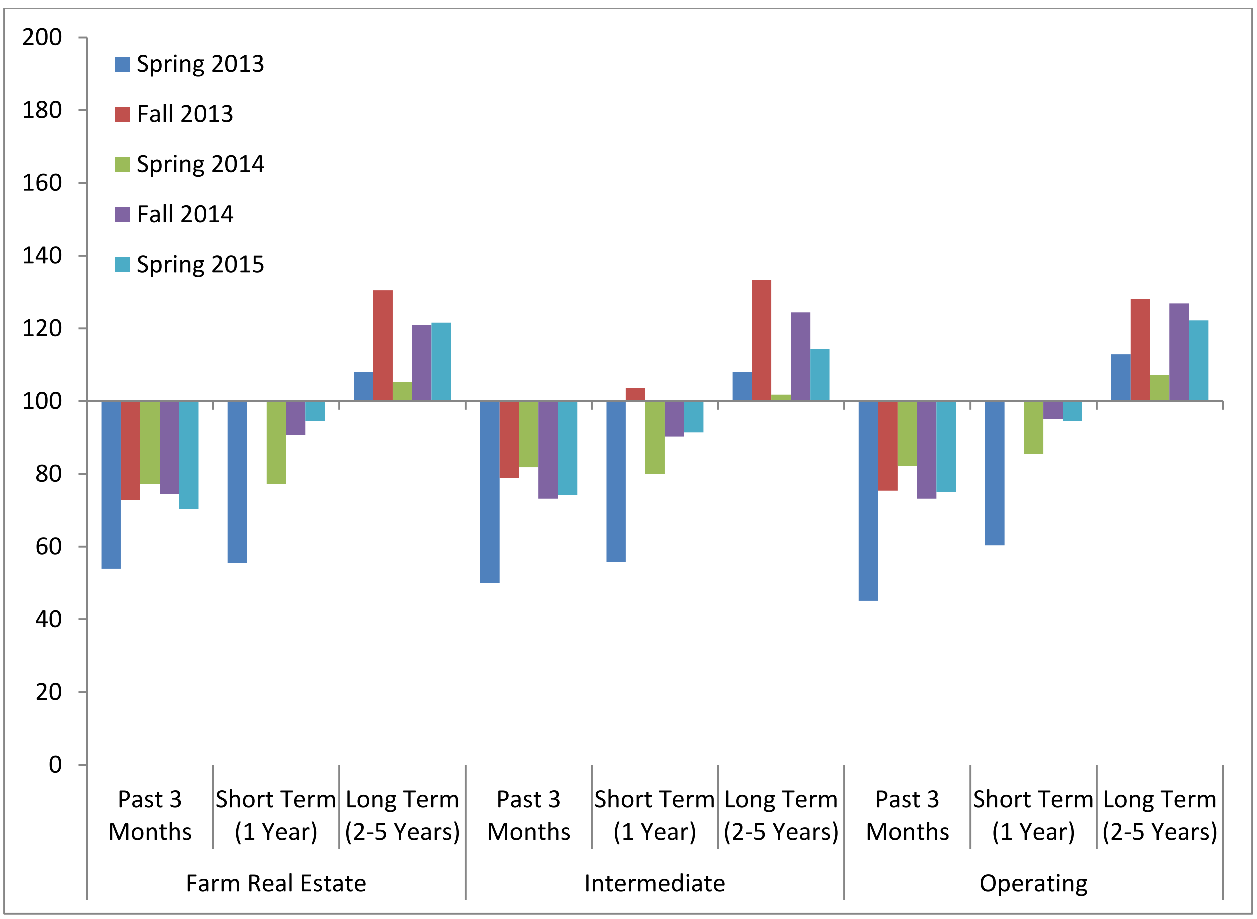
Figure 3, Loan Interest Rates – Diffusion Index of Survey Respondents



The spread over cost of funds is the difference between the loan interest rates charged by the lending institution and the interest rate paid by the financial institution for the funds that they deploy in their business. The reason for obtaining information for both loan interest rates and spread over cost of funds is to gauge competition in the agricultural lending market. A decrease in the spread over cost of funds suggests competition for agricultural loans among lending institutions may be increasing.

Figure 4 shows that survey respondents reported a decrease in the spread over cost of funds in the past three months. This trend is expected to cease in the long term as spread over cost of funds is expected to increase. The long term expectation of spread over cost of funds is one of the most divided responses on the survey. For farm real estate loans 43% of respondents indicated spread over cost of funds would increase in the long term, 35% indicated it would stay the same, and 22% indicated it would decrease (Table 2). This spread was similar for both intermediate and operating loans. While more respondents indicated an increase for spread over cost of funds, 57% of respondents expect that the spread over cost of funds will stay the same or decrease. This uncertainty may be affected by uncertainty on timing of interest rate increases and uncertainty about competition in the agricultural lending sector.

Figure 4, Spread Over Cost of Funds – Diffusion Index of Survey Respondents



This expectation for higher operating loans may be due to low commodity prices and increased input costs resulting in a decrease of liquidity in the agricultural sector.

Figure 5 shows the responses for farm loan volume. This question analyzes the aggregate amount of agricultural lending. Over the past three months, total farm dollar volume rose and is expected to increase in the short- and long-term for all categories. However, the sentiment for farm real estate loans continues on a downward trend. This downward trend of farm real estate loan expectations is likely caused by decreasing farmland values. Expectations for operating loans remains strong for both the short- and long-term. This expectation for higher operating loans may be due to low commodity prices and increased input costs resulting in a decrease of liquidity in the agricultural sector.

Figure 5, Farm Loan Volume – Diffusion Index of Survey Respondents

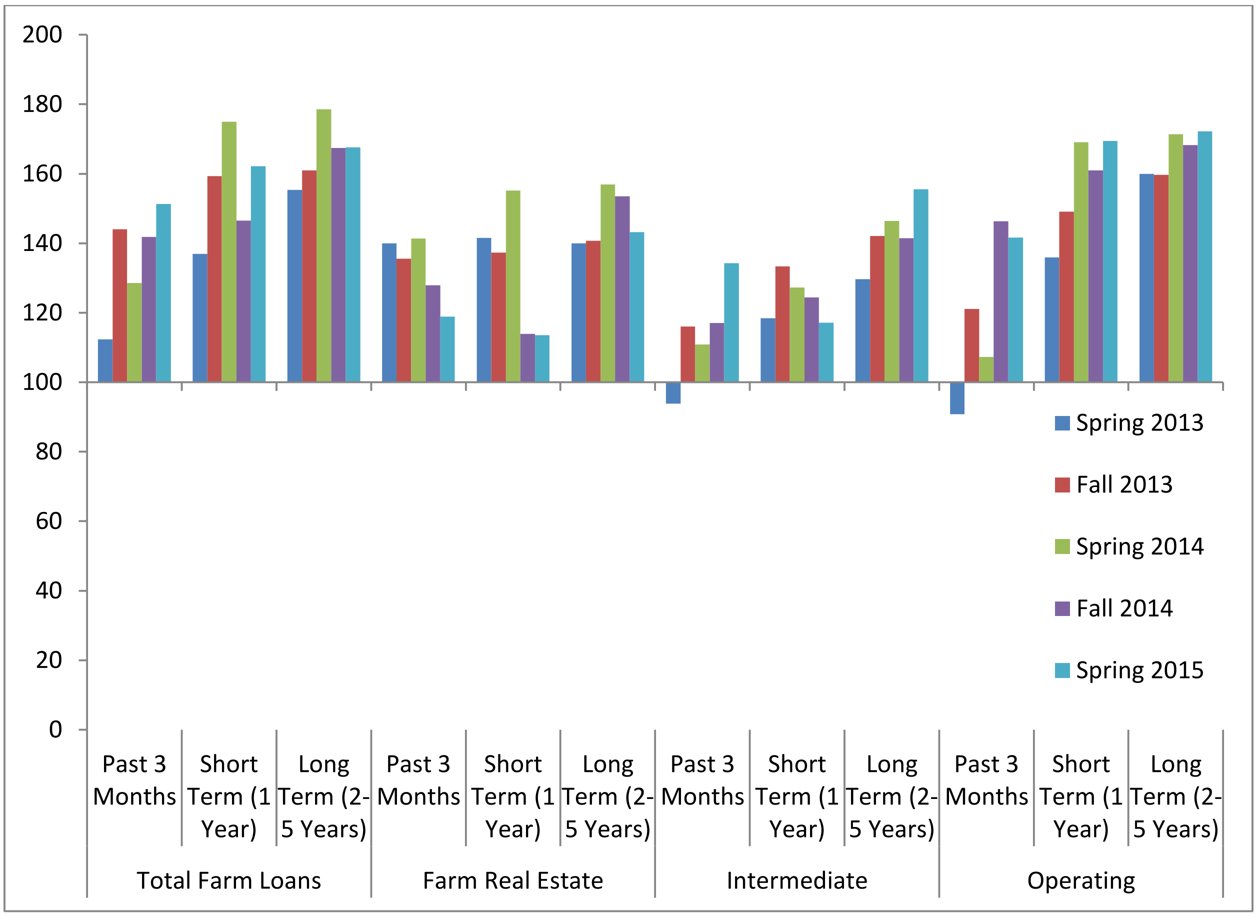


Figure 6 shows the results for non-performing loans analyzed by loan type. For the first time in the survey, respondents indicated an increase in non-performing loans with 6% of respondents indicating an increase (Table 2). Expectations for non-performing loans continue to increase in both the short- and long-term for all categories.

Respondents indicated that low commodity prices and rising input costs in the agricultural industry are the main reasons for these expectations. In addition, respondents noted that these conditions will affect large farmers first. One respondent commented that “In our area, 2 very large farmers have not been given credit from their financial institution for 2015 financing. One was over 10,000 acres of rented land, now being pieced out to others.” Another respondent shared this sentiment commenting that “I am concerned about the length of time commodity prices may be low. It could cause a lot of problems, especially with the larger [farms].”

While some respondents indicate an increase in non-performing loans, they do not seem too concerned for the agricultural sector in the long run. One respondent noted that “distressed operations may liquidate under-used items to bolster liquidity”.

Figure 6, Non-Performing Loans, By Loan Type – Diffusion Index of Survey Respondents

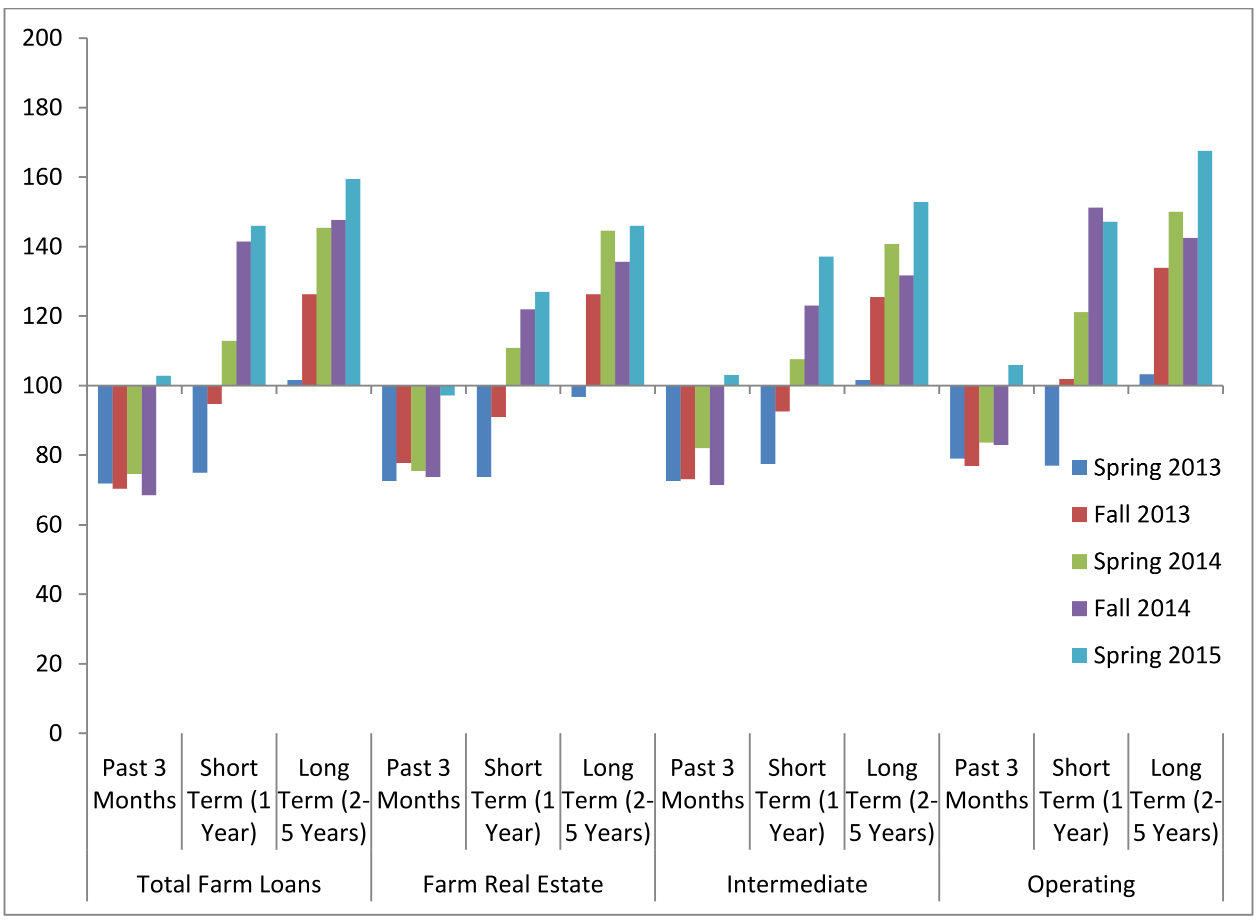


Figure 7 shows the non-performing loans by crop industry sector. Expectations for non-performing loans in the crop sector stayed at fairly high levels. Much of the increase in total non-performing loans is from the crop sectors. Lenders reported an increase for the first time in the corn and soybeans, wheat, and cotton sectors. One respondent stated that "I believe the grain and oilseed sector will struggle over the next couple of years" and this sentiment is expressed by the majority of respondents.

Figure 7, Non-Performing Loans, By Crop Industry Sector – Diffusion Index of Survey Respondents

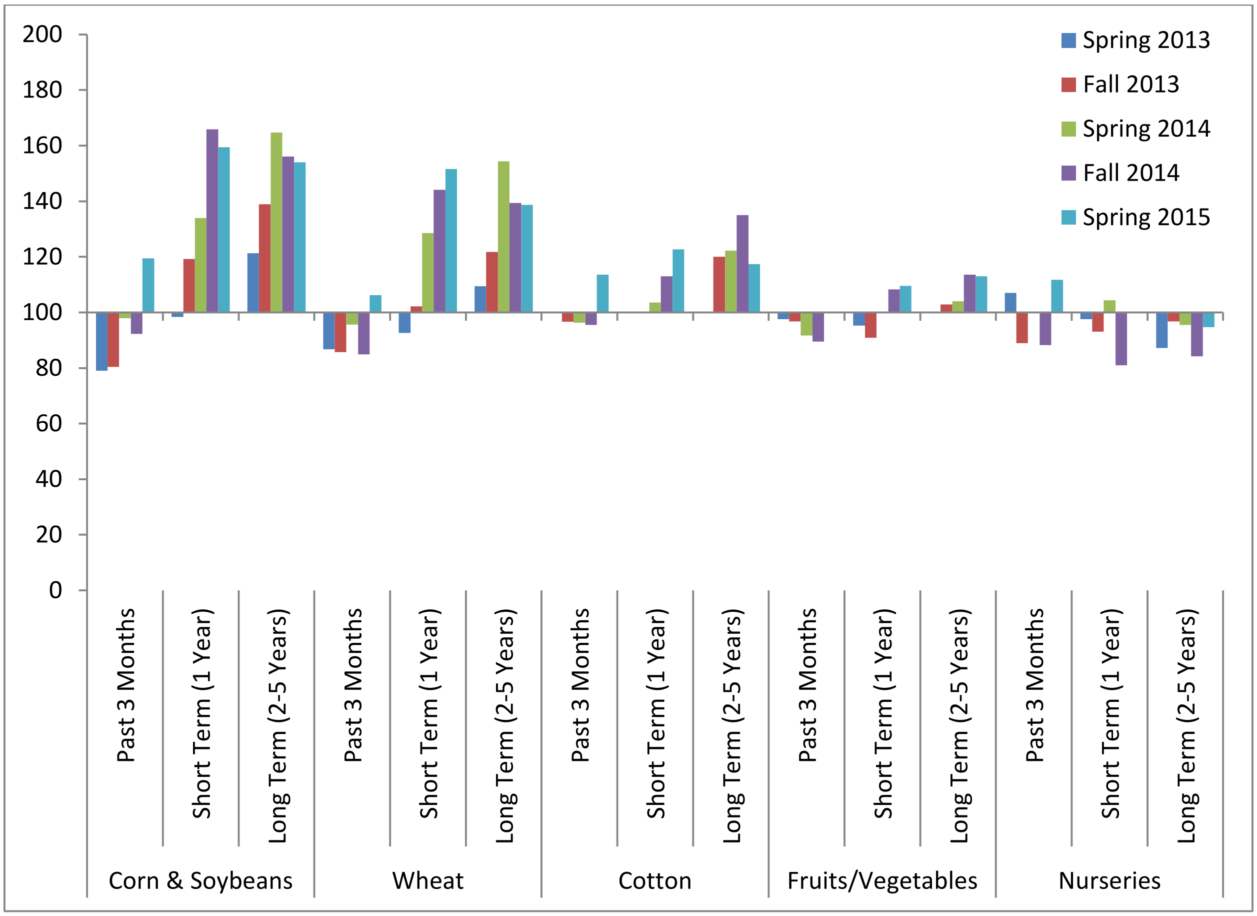


Figure 8 shows the non-performing loans by livestock industry sector. Respondents indicated an increase in expectations for non-performing loans in the long-term for the beef, dairy, and hog sectors. The livestock sector has been bolstered by high output prices in recent years and is reflected in the previous non-performing loans across respondent's loan territories. However, the expectation for an increase in non-performing loans shows that bankers do not expect the high commodity prices to continue.

Figure 8, Non-Performing Loans, By Livestock Industry Sector – Diffusion Index of Survey Respondents

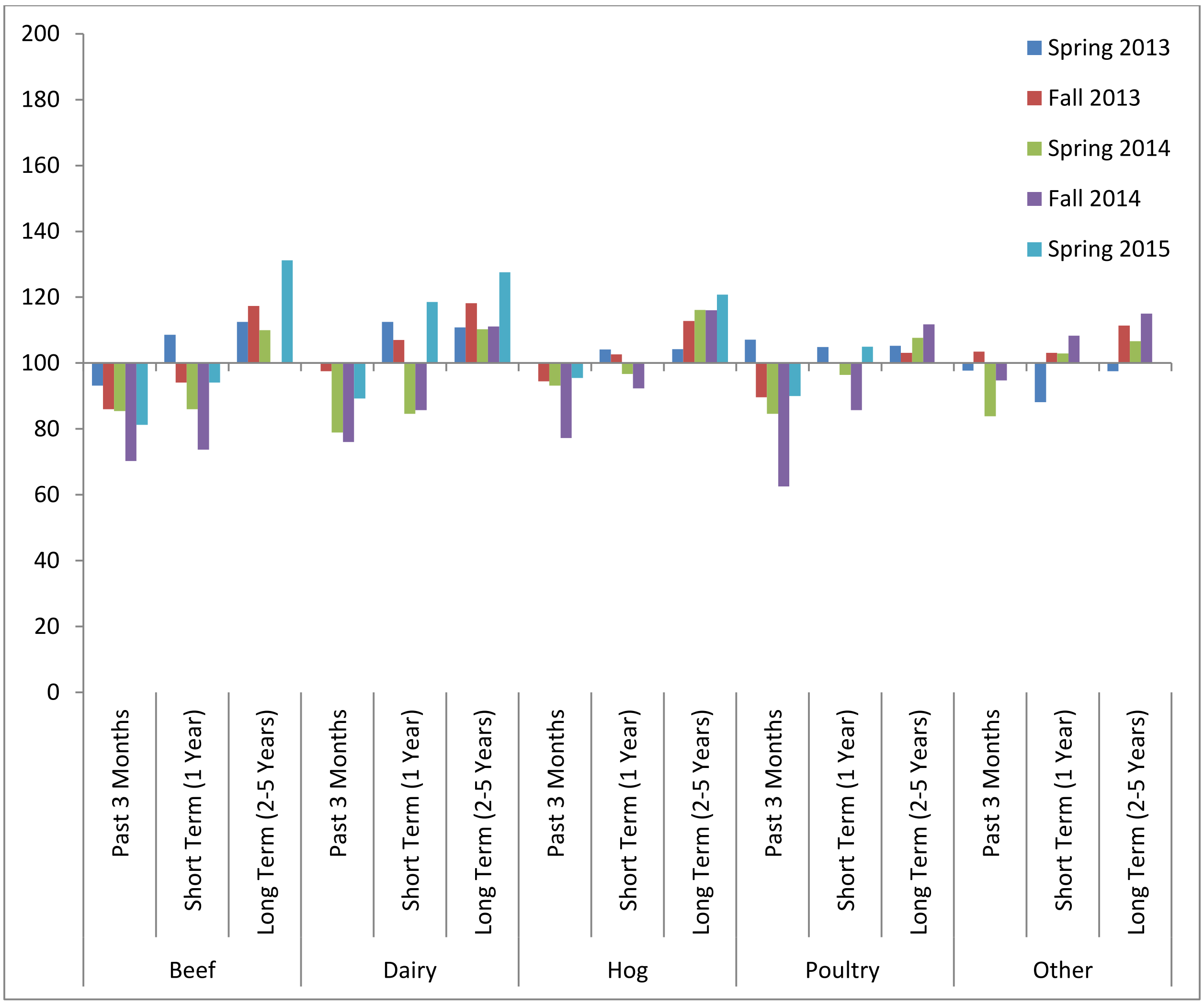
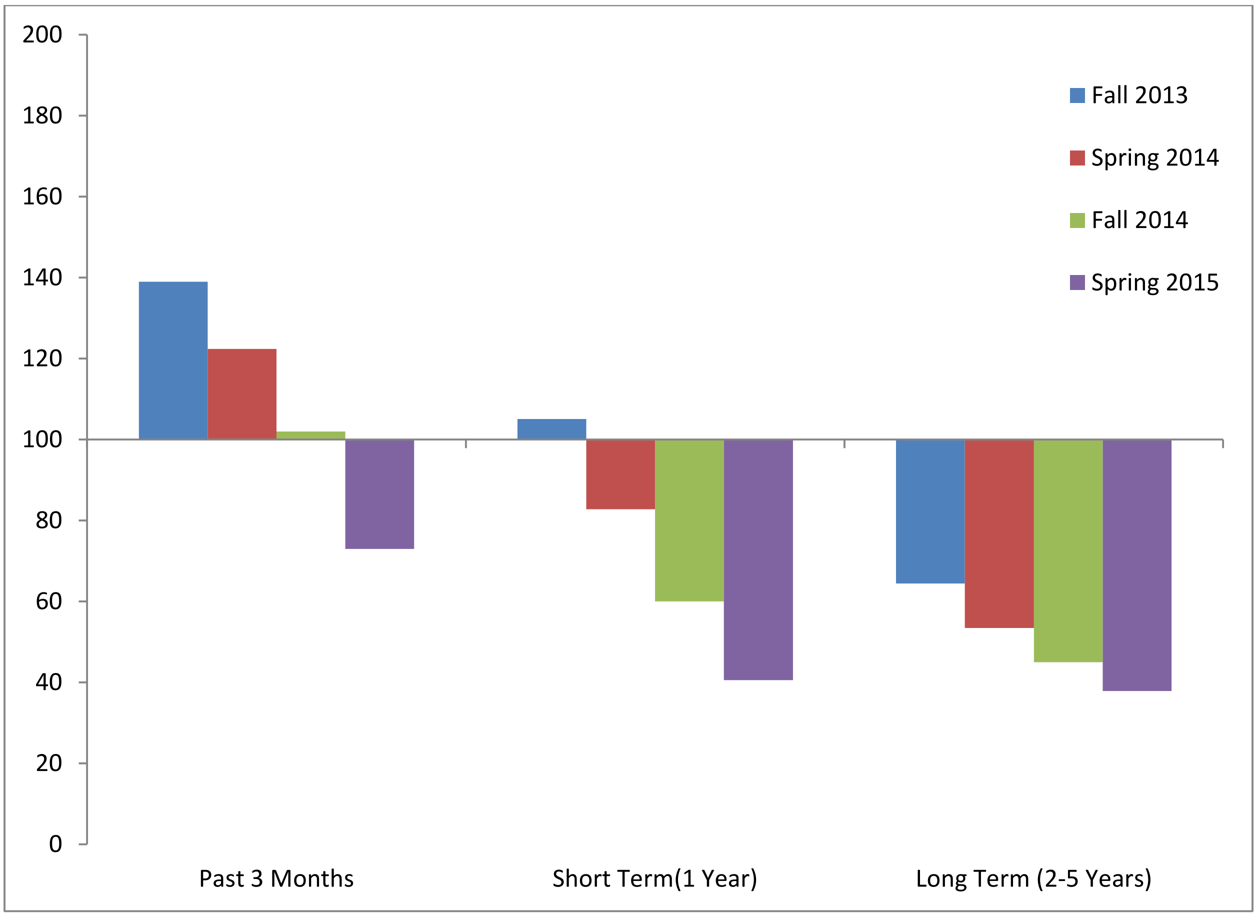


Figure 9 shows the survey responses for expectations on land values. Expectations for land values continue to decline for the short- and long-term. This was also the first time more respondents indicated that land prices declined in the past three months with 35% of respondents answering that land prices fell in their service territory (Table 2). One respondent estimates that “Upland farm ground has come down 10-15% in recent sales, good river bottom and irrigated has been un-tested on the open market. Pastureland is still very strong, but we could see a major decline if the cattle market breaks.”

Along with land values, cash rents were discussed by respondents. One respondent noted that “There has been a serious softening of cash rents” for their service territory and another noted that “cash rents reduced $25-$40 from a year ago.”

Figure 9, Land Values – Diffusion Index of Survey Respondents



An area of interest in this survey is the accuracy of the short- and long-term expectations of the respondents. With five semi-annual surveys completed, with the first being completed in Fall 2013, there are now three periods where the short-term expectations of the respondents overlap with the reported activity in the past three months category. To measure the accuracy of the short-term expectations, the diffusion index of the short-term expectations is measured against the diffusion index for what respondents reported in the past three months one year ahead of the short-term expectation (i.e., the short-term expectation in Spring 2013 is compared to what respondents indicated happened in the past three months on the Spring 2014 survey).

Figure 10 graphs the short-term expectations and what was reported a year later. From the graphs in Figure 10, the short-term expectation for the total farm loan index was 137 in Spring 2014 and increased to 175 in Spring 2015. The index for total farm loans reported by respondents was 139 in Spring 2014 and increased to 151 in the Spring 2015. For farm real estate loans, the short-term expectation was an index of 141 in the Spring 2014, decreasing to 137 in Fall 2014, and then a slight increase to 155 in Spring 2015. Responses from survey respondents resulted in an index of 141 in Spring 2014, which subsequently decreased to 128 in Fall 2014, then decreased again to 119 in Spring 2015. In this case, the short-term expectations over estimated farm real estate dollar volume as respondents expected farm real estate volume to continue on an upward trend and subsequently experienced a decrease in farm real estate loan volume.

For the intermediate loan category, short-term expectations were for intermediate loans to increase from an index of 118 in Spring 2014 to an index of 133 in Fall 2014 and decline to an index of 127 in Spring 2015. What was reported was a more gradual increase in intermediate loans as the index from responses in Spring 2014 was 111, rose to 117 in Fall 2014, and rose again to 134 in Spring 2015. Operating loan volume was expected to increase from an index of 136 in Spring 2014 to an index of 169 in Spring 2015. Reported operating loan volume did increase during this time; however, it did not increase as much as lenders expected starting at an index of 107 in Spring 2014 and rising to an index of 142 in Spring 2015.

Figure 10, Forecast Accuracy for Farm Dollar Volume

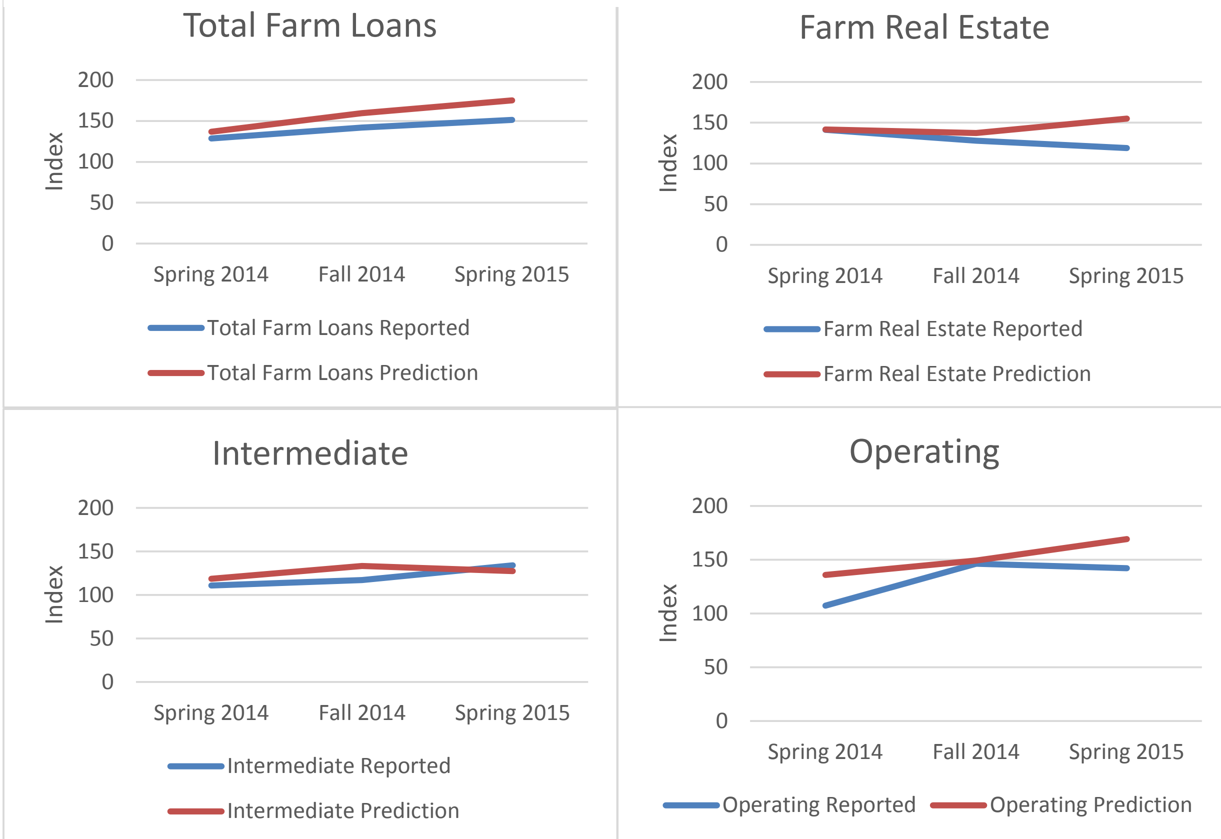


Figure 11 shows the difference in short-term expectations of non-performing loans and what was reported a year later. Methodology for these graphs was same as that for Figure 10. Short-term expectations were consistent with respondents reporting a year later. Short-term expectations for total non-performing farm loans were to increase from an index of 75 to an index of 103 from Spring 2014 to Spring 2015. This expectation proved to be fairly accurate as the index for total non-performing farm loans was 75 in Spring 2014 and rose to 113 in Spring 2015. For farm real estate non-performing loans, lender expectations were too optimistic. Respondents expected an increase in the number of farm real estate non-performing loans with the index increasing from 74 to 111 from Spring 2014 to Spring 2015. However, the lenders reported a greater increase in farm real estate non-performing loans as the amount reported increased to an index of 146 in Spring 2015. This same narrative told for real estate loans holds for the intermediate loan category. Survey respondents' expectations for non-performing operating loans were accurate with an expectation of the index increasing from 77 to 121 from Spring 2014 to Spring 2015. Index's for reported non-performing operating loans were calculated to be 84 and 127 for Spring 2014 and Spring 2015, respectively.

Figure 11, Forecast Accuracy for Non-Performing Loans

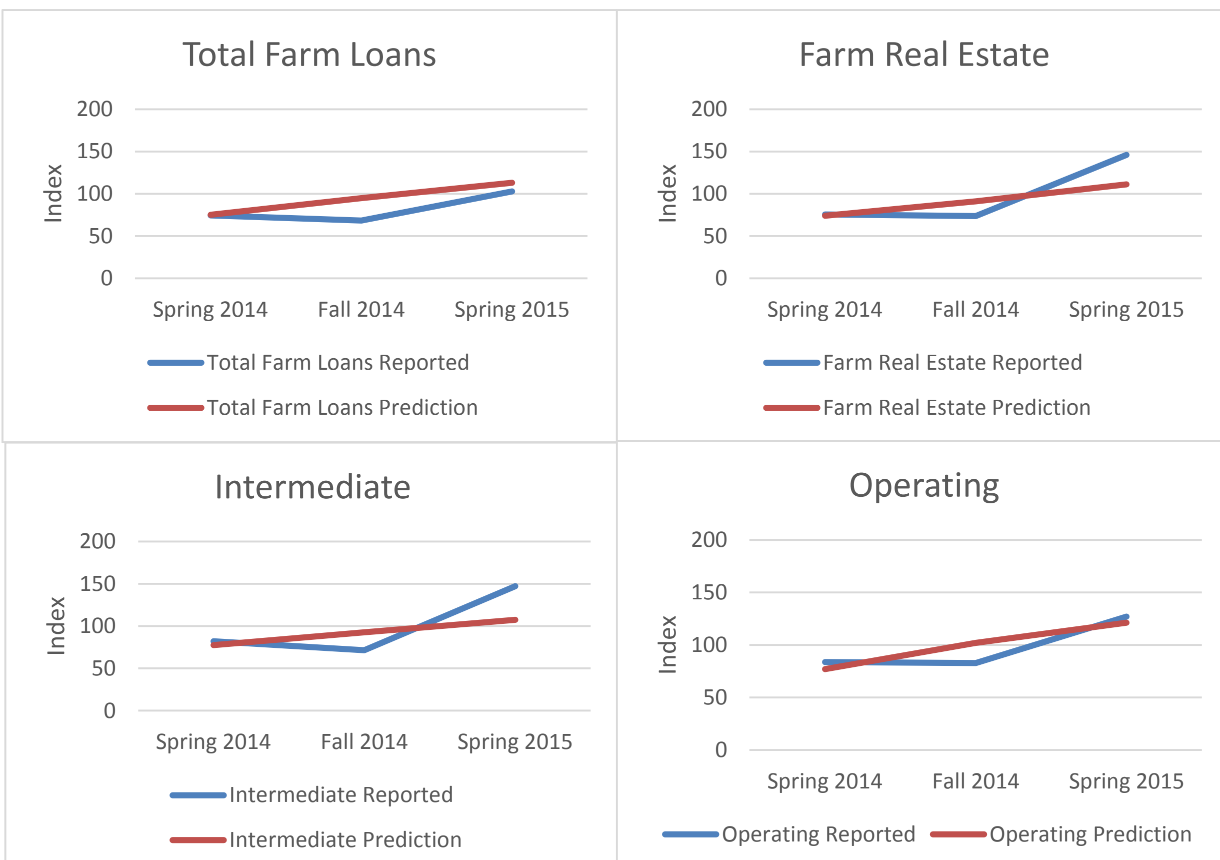


Table 1, States in Each Region

Atlantic	CT, DE, KY, ME, MD, MA, NH, NJ, NY, NC, PA, RI, TN, VA, VT, WV
South	AL, AR, FL, GA, LA, MS, SC
Midwest	IA, IL, IN, MI, MN, MO, OH, WI
Plains	KS, NE, ND, OK, SD, TX
West	AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY

Table 2, Respondent Responses

		Interest Rates									Spread Over Cost of Funds								
		Farm Real Estate			Intermediate			Operating			Farm Real Estate			Intermediate			Operating		
		Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher
Past Three Months	Spring 2013	55%	42%	3%	52%	43%	2%	48%	50%	0%	56%	35%	10%	56%	37%	6%	58%	39%	3%
	Fall 2013	17%	44%	39%	12%	58%	30%	18%	70%	12%	36%	56%	8%	30%	61%	9%	32%	61%	7%
	Spring 2014	14%	67%	19%	13%	78%	30%	16%	50%	5%	28%	67%	5%	24%	71%	5%	23%	71%	5%
	Fall 2014	14%	74%	12%	12%	78%	7%	15%	44%	7%	30%	65%	5%	29%	68%	2%	32%	63%	5%
	Spring 2015	19%	76%	5%	11%	89%	0%	11%	89%	0%	30%	70%	0%	26%	74%	0%	25%	75%	0%
Short Term	Spring 2013	11%	75%	14%	14%	72%	12%	17%	73%	9%	48%	51%	3%	46%	54%	2%	43%	52%	3%
	Fall 2013	0%	44%	56%	0%	51%	49%	0%	65%	35%	22%	56%	22%	19%	58%	23%	23%	54%	23%
	Spring 2014	5%	50%	45%	5%	50%	45%	7%	53%	40%	32%	60%	9%	31%	58%	11%	27%	60%	13%
	Fall 2014	2%	44%	53%	2%	46%	51%	2%	50%	48%	23%	63%	14%	22%	66%	12%	22%	61%	17%
	Spring 2015	0%	43%	57%	0%	40%	60%	0%	39%	61%	24%	57%	19%	20%	69%	11%	22%	61%	17%
Long Term	Spring 2013	2%	14%	85%	2%	9%	88%	2%	8%	89%	31%	34%	38%	30%	29%	38%	27%	32%	40%
	Fall 2013	0%	19%	81%	0%	21%	79%	0%	19%	81%	14%	42%	44%	12%	42%	46%	14%	44%	42%
	Spring 2014	0%	5%	95%	0%	4%	96%	0%	7%	93%	26%	42%	32%	27%	44%	29%	25%	42%	33%
	Fall 2014	0%	5%	95%	0%	7%	93%	0%	7%	93%	16%	47%	37%	27%	46%	39%	15%	44%	41%
	Spring 2015	0%	8%	92%	0%	9%	91%	0%	6%	94%	22%	35%	43%	23%	40%	37%	22%	33%	44%

Table 2 Continued, Respondent Responses

		Farm Dollar Volume											
		Total Farm Loans			Farm Real Estate			Intermediate			Operating		
		Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher
Past Three Months	Spring 2013	32%	22%	45%	12%	35%	52%	28%	46%	22%	40%	26%	31%
	Fall 2013	5%	46%	49%	7%	51%	42%	9%	66%	25%	12%	54%	33%
	Spring 2014	20%	32%	48%	9%	41%	50%	16%	56%	27%	29%	35%	36%
	Fall 2014	12%	35%	53%	16%	40%	44%	20%	44%	37%	12%	29%	59%
	Spring 2015	5%	38%	57%	14%	54%	32%	11%	43%	46%	8%	42%	50%
Short Term	Spring 2013	9%	43%	46%	8%	43%	49%	9%	58%	28%	6%	50%	42%
	Fall 2013	0%	41%	59%	8%	46%	46%	5%	56%	39%	5%	40%	54%
	Spring 2014	2%	21%	77%	3%	38%	59%	22%	29%	49%	4%	24%	73%
	Fall 2014	9%	35%	56%	19%	49%	33%	17%	41%	41%	7%	24%	68%
	Spring 2015	5%	27%	68%	22%	43%	35%	20%	43%	37%	3%	25%	72%
Long Term	Spring 2013	9%	25%	65%	15%	29%	55%	19%	30%	48%	5%	28%	65%
	Fall 2013	2%	36%	63%	8%	42%	49%	5%	47%	47%	4%	33%	63%
	Spring 2014	0%	21%	79%	7%	29%	64%	7%	39%	54%	0%	29%	71%
	Fall 2014	5%	23%	72%	14%	19%	67%	15%	0%	56%	17%	17%	76%
	Spring 2015	3%	27%	70%	11%	35%	54%	8%	28%	64%	0%	28%	72%

Table 2 Continued, Respondent Responses

		Non-Performing Loan by Loan Type												Ag Land Values		
		Total Farm Loans			Farm Real Estate			Intermediate			Operating					
		Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher
Past Three Months	Spring 2013	28%	58%	0%	27%	63%	0%	27%	61%	0%	24%	63%	3%			
	Fall 2013	31%	67%	2%	24%	74%	2%	29%	69%	2%	27%	69%	4%	0%	61%	39%
	Spring 2014	27%	71%	2%	28%	68%	4%	20%	78%	2%	20%	76%	4%	14%	50%	36%
	Fall 2014	32%	68%	0%	29%	68%	3%	29%	71%	0%	26%	66%	9%	14%	69%	17%
	Spring 2015	3%	91%	6%	3%	97%	0%	3%	91%	6%	3%	88%	9%	35%	57%	8%
Short Term	Spring 2013	28%	58%	3%	30%	64%	3%	26%	65%	3%	30%	61%	7%			
	Fall 2013	18%	70%	13%	15%	80%	5%	17%	74%	9%	13%	72%	15%	17%	61%	22%
	Spring 2014	9%	69%	22%	9%	71%	20%	9%	74%	17%	8%	63%	29%	33%	52%	16%
	Fall 2014	5%	49%	46%	5%	68%	27%	5%	67%	28%	5%	38%	56%	48%	45%	7%
	Spring 2015	3%	49%	49%	3%	68%	30%	3%	57%	40%	3%	47%	50%	59%	41%	0%
Long Term	Spring 2013	19%	56%	20%	21%	62%	17%	16%	65%	18%	16%	63%	19%			
	Fall 2013	14%	46%	40%	12%	49%	39%	11%	53%	36%	11%	45%	45%	46%	44%	10%
	Spring 2014	7%	40%	53%	7%	41%	52%	6%	48%	46%	4%	42%	54%	59%	29%	12%
	Fall 2014	10%	33%	57%	10%	45%	45%	12%	44%	44%	13%	33%	55%	64%	26%	10%
	Spring 2015	3%	35%	62%	3%	49%	49%	3%	42%	56%	3%	27%	70%	65%	32%	3%