Spring 2018 Report



























# TABLE OF CONTENTS

Author Information	1
Executive Summary	2
Survey Overview and Demographic Information	3
Interest Rates	5
Spread Over Cost of Funds	6
Farm Loan Volume	7
Non-Performing Loans	9
Land Values	13

## **Author Information**

Brady Brewer, Assistant Professor, Purdue University

Allen Featherstone, Professor, Head and Director of the Masters of Agribusiness Program, Kansas State University

Christine Wilson, Professor and Director of Undergraduate Programs, Kansas State University

Brian Briggeman, Professor and Director of the Arthur Capper Cooperative Center, Kansas State University

## **Executive Summary**

### **INTEREST RATES**

No change in interest rates over the past three months. Expectations remain for interest rates to increase in both the short and long-term.

### SPREAD OVER COST OF FUNDS

Spread over cost of funds decreased over the past three months indicating higher competition in the agricultural credit markets. Lenders expect this trend to reverse in the short and long term.

#### FARM LOAN VOLUME

Demand for total farm loans remains high, particularly for intermediate and operating loans which lenders expect an increased need for due to deteriorating industry liquidity.

#### **NON-PERFORMING LOANS**

Lenders reported an increase in non-performing loans for all loan types. Expectations continue to be that non-performing loans will increase in both the short and long term.

#### LAND VALUES

Expectations for land values continue to show decreasing farmland values in both the short and long term. Lenders reported falling farmland values for the past three months.

## Survey Overview and Demographic Information

### **PURPOSE**

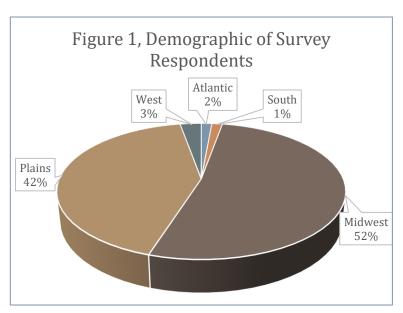
The Department of Agricultural Economics at Kansas State University conducts a semiannual survey of Agricultural Lenders to gage the recent, short term and long term future assessment of the credit situation for production agriculture. The results provide a measure of the health of the sector in a forward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

Each institution surveyed provided their sentiment on the current and expected state of five 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.). These areas provide a comprehensive, forward looking analysis of the agricultural lending sector.

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, on page 5, the graph for "Farm Real Estate Loans Interest Rates" illustrates that the index for spring 2018 expected short-term farm real estate equals 194. This number represents the fact that 94 more percentage points of lenders believe that farm real estate interest rates would increase in the short run rather than those that believe rates will go down.

### **SURVEY DEMOGRAPHICS**

Figure 1 shows the demographics of the Spring 2018 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. Forty two percent of survey respondents came from the Plains region while 52%, 3%, 2% and 1% came from the Midwest, West,



Atlantic, and South regions, respectively. One percent of respondents indicated their respective lending institution was national in scope.

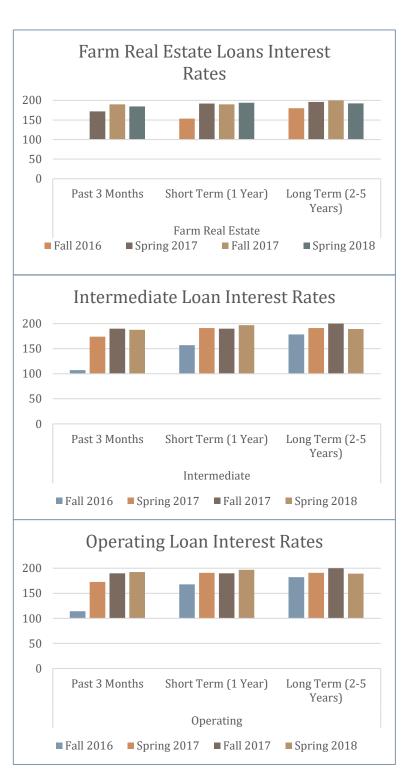
### **Interest Rates**

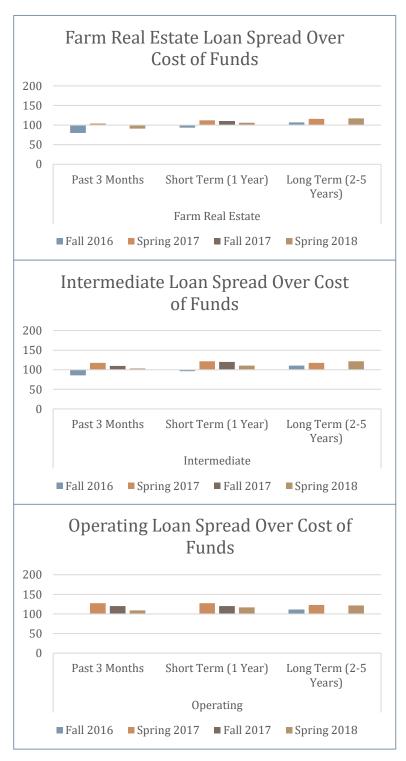
The three figures to the right show the last 4 periods of lender expectations of interest rates for farm real estate loans, intermediate loans and operating loans. All lenders are asked what they experienced over the past three months as well as his/her expectations for the short-term and long-term.

For all three loan categories, lenders continue to indicate rising interest rates. In fact, no respondent to the survey indicated lower interest rates in over the past three months. However, some respondents did indicate there was no change in interest rates over the past three months (Table 2).

Lender expectations for both the short-term and long-term continue to indicate an increase in interest rates. No survey respondent expects a decrease in interest rates in the short-term and only 2 % of respondents expect a decreasing interest rate environment in the long-term.

For a complete history of the expectations lenders have had for interest rates please see Figure A1 at the back of this report.





# Spread Over Cost of Funds

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.

Spread over cost of funds had the most disagreement among lenders for the spring 2018 survey. For each loan category, almost an equal number of respondents indicated that the spread over cost of funds decreased, stayed the same, or increased. This may reflect uncertainty for interest rate levels and demand for funds in the future.

In the short-term and long-term, lenders expect spread over cost of funds to increase meaning agricultural lending would be more profitable for lending institutions in the future.

The historical responses to spread over cost of funds are at the back of this document in Figures A2.1 to A2.3.

## Farm Loan Volume

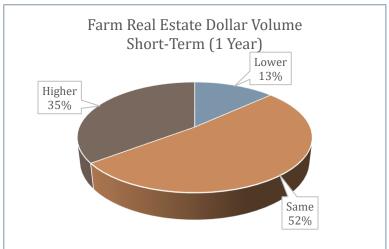
Farm loan volume measures the demand for money in production agriculture. The respondents are asked about four different categories of loans: total, farm real estate, intermediate, and operating.

Agricultural lenders reported increased demand for total farm loans over the past three months and expect demand for total farm loans to increase in both the short term and long term. There is a particularly strong sentiment in the short term as 61% of lenders expect an increase in the next year with only 7% expecting a decrease (Table 2).

The increase in total farm loan volume can be attributed to

Total Farm Loan Volume 200 150 100 50 0 Past 3 Months Short Term (1 Year) Long Term (2-5 Years) Total Farm Loans ■ Spring 2017 ■ Fall 2017 ■ Spring 2018 Farm Real Estate Loan Volume 200 150 100 50 0 Past 3 Months Long Term (2-5 Short Term (1 Year) Years) Farm Real Estate ■ Spring 2017 ■ Fall 2017 ■ Fall 2016 ■ Spring 2018

higher demand for operating and intermediate loans, not farm real estate loans. Of the three categories, farm real estate loans

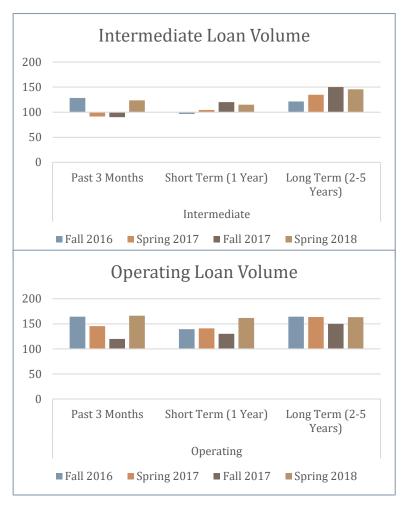


had lower expectations than intermediate or operating loans, albeit still positive. This may indicate a sluggish farm real estate market over the past three months and into the near future. Sixty-four percent of respondents indicated that farm real estate loan volume will decrease or remain the same in the short-term.

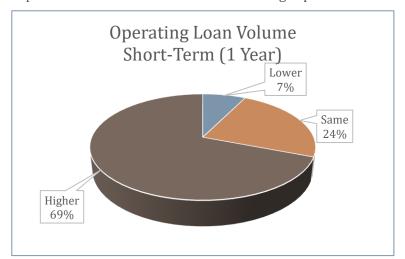
This increase in farm loan volume may also be driven by certain sectors of the agricultural economy. One respondent noted "While row crop lending stayed about the same as far as total acreage and total funds loaned, we are seeing some increase in beef cattle, mainly brood stock."

The increase in intermediate loan volume over the past three months is a reversal of trend from the previous two surveys. This indicates that there has been an increase on spending for intermediate production equipement such as tractors or irrigation.

Expectations of operating loan volumes are now at a two year high for both the short-term and long-term. This increase in demand may indicate lenders

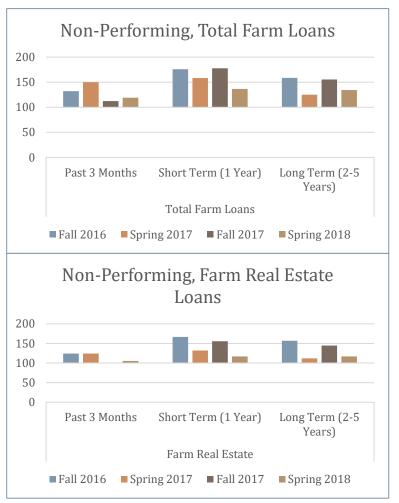


expect a continued deterioration of working capital on farms. This sentiment is shared by many



survey respondents as 69% agree that short-term operating loan volume will increase.

The historical responses to farm loan volume are at the back of this document in Figures A3.1 to A3.3.



## Non-Performing Loans

Survey respondents are asked about their expectations of non-performing loans from two aspects. The first is by their expectation depending on the type of loan and the second is by the sector of the agricultural economy in which the loan was made.

#### BY LOAN TYPE

Analyzing the expectations for non-performing loans by loan type, more respondents indicated increasing non-performing loans for all four categories. However, even with this increase, some banks are still reporting that they have no non-performing agricultural loans in their portfolio.

Short-term and long-term expectations of agricultural lenders are for non-performing loans to increase; however, this sentiment is not as strong as it was in the fall of 2017. This may

indicate that while lenders see decreased working capital in the future, as indicated by expectations of farm loan volume, they also expect farmers to have the cash flow to pay their current debt obligations or have significant equity to collateralize.

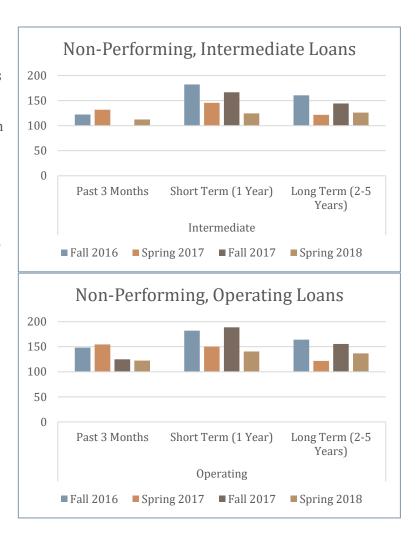
"We are fortunate to not have any nonperforming ag loans at this time."

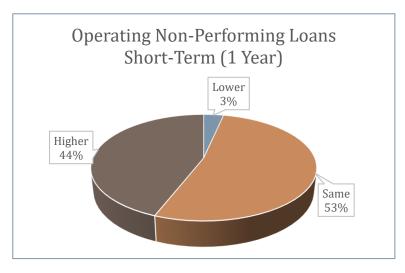
Spring 2018 Survey Respondent

Examing each loan category, bankers reported little increase in non-performing loans for all three loan categories.

Short-term and long-term expectations are for non-performing loans to increase. Lender expectations are the strongest for operating loans where 44% of respondents indicated they expect an increase in non-performing operating loans in the next year.

The historical responses to nonperforming loans are at the back of this document in Figures A4.1 to A4.3.





#### BY CROP SECTOR

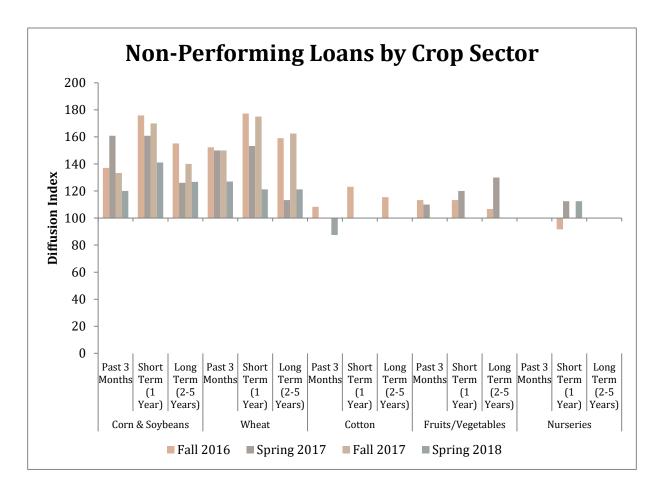
Lender expectations for non-performing loans by crop sector are more optimistic than by loan type. Lenders indicated they saw a decrease in non-performing loans for corn and soybean, cotton and nursery loans with marginal increases for wheat and fruit and vegetables.

In the past three months, the largest increases for non-performing loans are attributable to corn and soybeans and wheat loans. Increases in nonperformance for cotton and fruit/vegetables remains low.

"Commodity price deterioration combined with rising interest rate environment will be challenging."

> Spring 2018 Survey Respondent

In the short and long term, lenders expect the highest increases in non-performing loans to be in the corn and soybean and wheat commodities. Please note that this survey was administered before a subsequent decline in commodity prices. This may have changed lender expectations on this question. Historical responses are located in Figures A5.1 to A5.3.



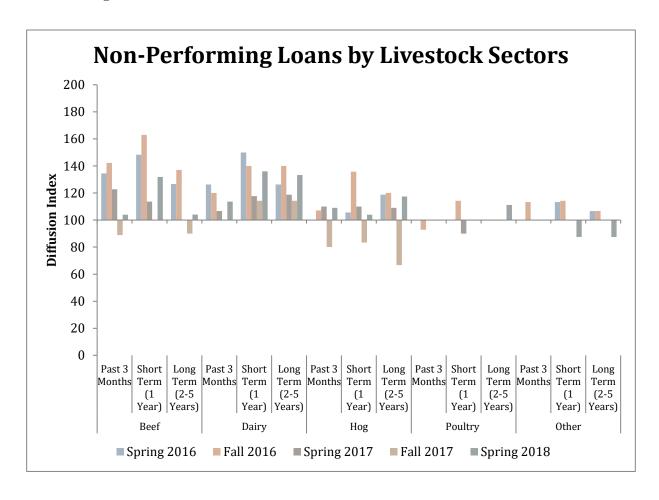
#### BY LIVESTOCK SECTOR

Lender expectations for non-performing loans by livestock sector indicate there were slight increases in non-performing loans for beef and dairy, with no change in hog and poultry loans. For short-term expectations, lenders indicated that there will be an increase in non-performing loans for beef and dairy. These expectations in the short run are stronger than what lenders indicated in the fall of 2017. However, long-term expectations are more moderated than the short-term expectations with lenders indicated marginal increases or no change for beef, hog, and poultry. Dairy is the only livestock sector where lenders expect more non-performing loans in the

"So much of the stress that our agriculture producers will face over the next 12 months is drought dependent, with trade policy another large factor."

Spring 2018 Survey Respondent

long-term with 33% of the lenders indicating they expect an increase. Historical responses are located in Figures A6.1 to A6.3.



## **Land Values**

Over the past three months, 23% of lenders reported decreasing land values in their loan service territory while only 13% of lenders reported an increase and 64% reported no change. This continues the trend of moderating land values. However, lender expectations in the long-term reversed trend



with more respondents indicating that they feel land values will decline in the long-term. Historical responses for this question are located in Figure A7.

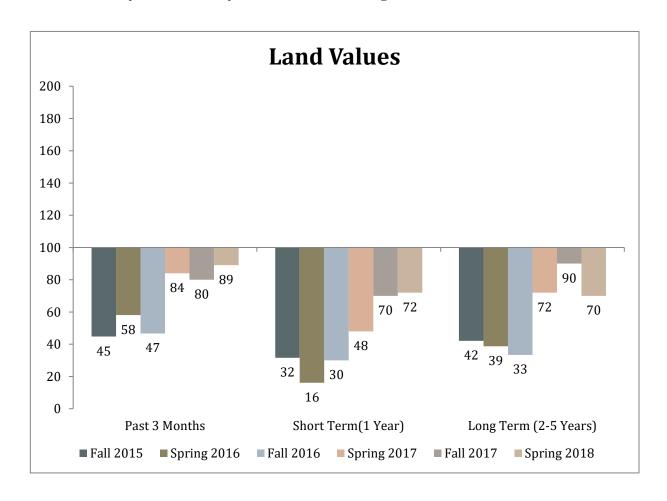


Table A1, States in Each Region										
Atlantic	CT, DE, KY, ME, MD, MA, NH, NJ, NY, NC, PA, RI, TN, VA, VT, WV									
South	AL, AR, FL, GA, LA, MS, SC									
Midwest	IA, IL, IN, MI, MN, MO, OH, WI									
Plains	KS, NE, ND, OK, SD, TX									
West	AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY									

Table A2, Respondent Responses

			Interest Rates										Spread Over Cost of Funds								
		Farm Real Estate Intermediate				ate	Operating			Farm Real Estate			Intermediate			Operating					
		Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Highe		
	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%		
Past Three Months	Fall 2015	5%	79%	13%	8%	78%	11%	11%	81%	6%	32%	63%	3%	22%	72%	3%	25%	69%	3%		
	Spring 2016	3%	52%	45%	0%	57%	43%	0%	50%	50%	10%	77%	13%	13%	77%	10%	13%	67%	20%		
	Fall 2016	10%	80%	10%	4%	86%	11%	0%	86%	14%	27%	67%	7%	25%	64%	11%	14%	71%	14%		
	Spring 2017	0%	28%	72%	0%	26%	74%	0%	27%	73%	20%	56%	24%	17%	48%	35%	18%	36%	45%		
	Fall 2017	0%	10%	90%	0%	10%	90%	0%	10%	90%	10%	80%	10%	0%	90%	10%	0%	80%	20%		
	Spring 2018	0%	15%	85%	0%	12%	88%	0%	8%	92%	38%	32%	29%	26%	45%	29%	26%	38%	35%		
	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%		
Short Term	Fall 2015	0%	34%	66%	0%	42%	58%	0%	32%	13%	24%	58%	18%	27%	51%	22%	31%	44%	25%		
	Spring 2016	0%	32%	68%	0%	30%	70%	0%	27%	73%	6%	68%	26%	7%	60%	33%	3%	57%	40%		
	Fall 2016	3%	40%	57%	0%	43%	57%	0%	32%	68%	20%	67%	13%	18%	68%	14%	14%	71%	14%		
	Spring 2017	0%	8%	92%	0%	9%	91%	0%	9%	91%	24%	40%	36%	17%	43%	39%	18%	36%	45%		
	Fall 2017	0%	10%	90%	0%	10%	90%	0%	10%	90%	20%	50%	30%	10%	60%	30%	20%	40%	40%		
	Spring 2018	0%	6%	94%	0%	3%	97%	0%	3%	97%	26%	42%	32%	20%	49%	31%	20%	43%	37%		
	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%		
Long Term	Fall 2015	0%	3%	97%	0%	3%	97%	0%	3%	97%	16%	42%	42%	16%	43%	41%	19%	38%	43%		
	Spring 2016	0%	3%	97%	0%	3%	97%	0%	3%	97%	16%	35%	48%	13%	37%	50%	13%	33%	53%		
	Fall 2016	0%	20%	80%	0%	21%	79%	0%	18%	82%	23%	47%	30%	18%	54%	29%	21%	46%	32%		
	Spring 2017	0%	4%	96%	0%	9%	91%	0%	9%	91%	12%	60%	28%	13%	57%	30%	14%	50%	36%		
	Fall 2017	0%	0%	100%	0%	0%	100%	0%	0%	100%	30%	40%	30%	20%	60%	20%	30%	40%	30%		
	Spring 2018	0%	8%	92%	2%	8%	91%	2%	8%	91%	12%	58%	29%	9%	60%	31%	9%	60%	31%		

**Table A2 Continued, Respondent Responses** 

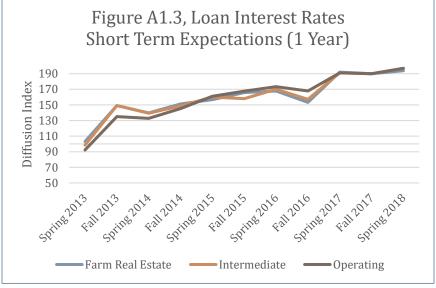
		Farm Dollar Volume											
		Tota	l Farm L	oans.	Farn	n Real E	state	Int	termedi	ate	(	ng	
		Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher
	Spring 2013	32%	22%	45%	12%	35%	52%	28%	46%	22%	40%	26%	31%
	Fall 2013	5%	46%	49%	7%	51%	42%	9%	66%	25%	12%	54%	33%
	Spring 2014	20%	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%
Past Three Months	Fall 2015	5%	27%	68%	8%	53%	39%	8%	70%	19%	3%	22%	72%
	Spring 2016	0%	33%	67%	10%	42%	48%	7%	47%	47%	7%	23%	70%
	Fall 2016	3%	38%	59%	13%	47%	40%	7%	57%	36%	4%	29%	68%
	Spring 2017	17%	38%	46%	8%	40%	52%	26%	57%	17%	5%	45%	50%
	Fall 2017	30%	30%	40%	10%	30%	60%	40%	30%	30%	20%	40%	40%
	Spring 2018	4%	35%	60%	15%	47%	38%	9%	59%	32%	4%	25%	71%
	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%
Short Term	Fall 2015	3%	14%	81%	13%	47%	37%	24%	41%	32%	0%	14%	83%
	Spring 2016	0%	33%	67%	16%	29%	55%	20%	43%	37%	7%	23%	70%
	Fall 2016	7%	34%	59%	17%	23%	60%	29%	46%	25%	11%	39%	50%
	Spring 2017	8%	42%	50%	8%	44%	48%	26%	43%	30%	0%	59%	41%
	Fall 2017	10%	30%	60%	10%	20%	70%	20%	40%	40%	10%	50%	40%
	Spring 2018	7%	31%	61%	13%	51%	35%	18%	49%	33%	7%	24%	69%
	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%	30%	56%	17%	17%	76%
	Spring 2015	3%	27%	70%	11%	35%	54%	8%	28%	64%	0%	28%	72%
Long Term	Fall 2015	8%	19%	70%	18%	21%	58%	14%	43%	41%	3%	11%	83%
	Spring 2016	0%	23%	77%	16%	29%	55%	10%	30%	60%	3%	20%	77%
	Fall 2016	3%	31%	66%	10%	30%	60%	18%	43%	39%	4%	29%	68%
	Spring 2017	13%	21%	67%	12%	24%	64%	17%	30%	52%	5%	27%	68%
	Fall 2017	10%	20%	70%	10%	50%	40%	10%	30%	60%	10%	30%	60%
	Spring 2018	7%	15%	78%	13%	28%	59%	9%	37%	54%	9%	19%	72%

**Table A2 Continued, Respondent Responses** 

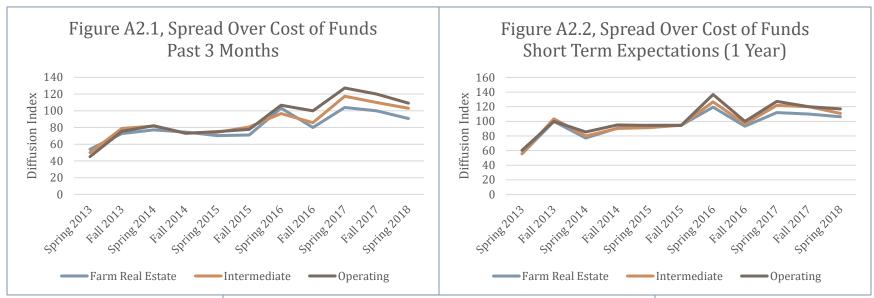
		Non-Performing Loan by Loan Type												Ag Land Values			
		Tota	l Farm L	oans	Farr	n Real E	state	Int	termedi	ate	(	Operatii	ng	Ag	ues		
		Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	Lower	Same	Higher	
	Spring 2013	28%	58%	0%	27%	63%	0%	27%	61%	0%	24%	63%	3%				
	Fall 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%	
Past Three Months	Fall 2015	0%	85%	12%	3%	86%	9%	0%	85%	12%	0%	81%	16%	58%	37%	3%	
	Spring 2016	0%	57%	43%	0%	74%	26%	0%	67%	33%	0%	47%	53%	48%	45%	6%	
	Fall 2016	0%	68%	32%	0%	76%	24%	0%	78%	22%	0%	52%	48%	57%	40%	3%	
	Spring 2017	8%	33%	58%	8%	60%	32%	5%	59%	36%	5%	36%	59%	24%	68%	8%	
	Fall 2017	13%	63%	25%	13%	75%	13%	13%	75%	13%	0%	75%	25%	30%	60%	10%	
	Spring 2018	7%	67%	26%	5%	84%	11%	4%	80%	16%	7%	64%	29%	23%	64%	13%	
	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%	
Short Term	Fall 2015	3%	41%	53%	3%	57%	37%	3%	47%	47%	3%	24%	71%	71%	24%	3%	
	Spring 2016	0%	23%	77%	6%	39%	55%	3%	33%	63%	0%	13%	87%	84%	16%	0%	
	Fall 2016	0%	24%	76%	0%	33%	67%	0%	18%	82%	0%	18%	82%	73%	23%	3%	
	Spring 2017	8%	25%	67%	8%	52%	40%	9%	36%	55%	9%	32%	59%	56%	40%	4%	
	Fall 2017	0%	22%	78%	0%	44%	56%	0%	33%	67%	0%	11%	89%	40%	50%	10%	
	Spring 2018	3%	57%	40%	0%	83%	17%	2%	72%	26%	3%	53%	44%	41%	47%	13%	
	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%	
Long Term	Fall 2015	6%	29%	63%	6%	31%	61%	6%	26%	66%	6%	20%	71%	66%	24%	8%	
	Spring 2016	10%	27%	63%	16%	32%	52%	10%	27%	63%	10%	27%	63%	68%	26%	6%	
	Fall 2016	3%	34%	62%	3%	37%	60%	4%	32%	64%	4%	29%	68%	70%	27%	3%	
	Spring 2017	17%	42%	42%	16%	56%	28%	13%	52%	35%	17%	43%	39%	36%	56%	8%	
	Fall 2017	11%	22%	67%	11%	33%	56%	11%	33%	56%	11%	22%	67%	20%	70%	10%	
	Spring 2018	5%	56%	39%	2%	80%	18%	5%	64%	31%	5%	53%	42%	47%	36%	17%	

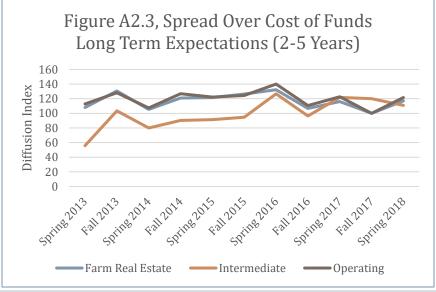
Figures A1.1 to A1.3 Historical Responses, Interest Rates



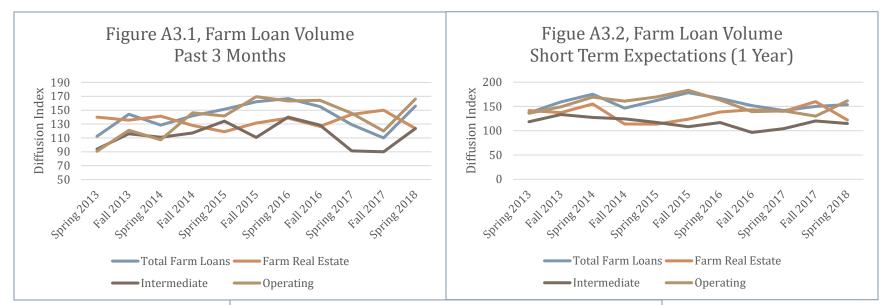


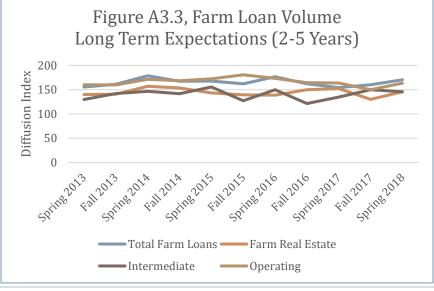
Figures A2.1 to A2.3 Historical Responses, Spread Over Cost of Funds





Figures A3.1 to A3.3 Historical Responses, Farm Loan Volume

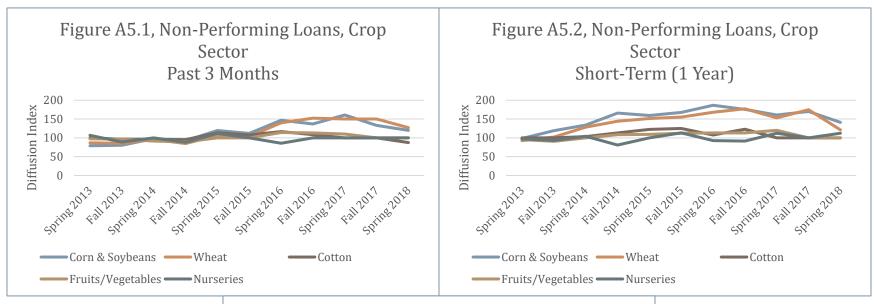


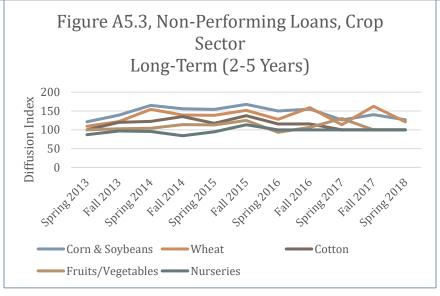


Figures A4.1 to A4.3 Historical Responses, Non-Performing Loans by Loan Type



Figures A5.1 to A5.3 Historical Responses, Non-Performing Loans by Crop Sector





Figures A6.1 to A6.3 Historical Responses, Non-Performing Loans by Livestock Sector

