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FEDERAL RESERVE BANK of KANSAS CITY

Monitoring Credit Conditions in Rural America

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steep recession and financial meltdown have led to tight credit markets in rural America. With rising loan delinquency and default rates, the creditworthiness of some businesses has declined. In response, banks have raised credit standards on farm and nonfarm loans, limiting credit access for many business owners. In fact, 41 percent of small business owners reported seeing their 2009 credit limits reduced.1

The lack of credit for rural business owners, including farmers, leads to lower levels of investment and employment. Young and beginning business owners are often the most vulnerable. To boost the availability of credit for business owners and jumpstart the rural economy, the federal stimulus package has expanded funds for existing loan guarantee programs. Still, credit market risk remains high, and business owners are concerned about future access to credit.

This article explains how credit conditions are evolving for rural business owners. While federal credit programs have been expanded, credit conditions remain tight, and rural business owners worry about credit access in the future. Fortunately, a few straightforward gauges can shed light on current credit conditions and provide rural business owners information they can use to identify when credit markets turn.

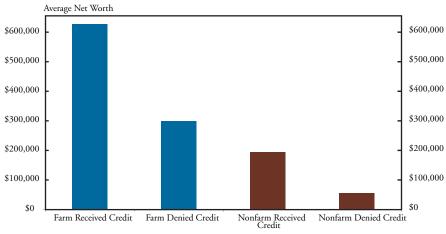
How Tight Are Credit Markets?

In less financially stressed times, most rural business owners are able to secure credit. In fact, less than 5 percent of business owners were denied credit in 2005. Those most likely to be denied credit in normal times had low net worth. Farmers are generally more likely to receive credit thanks to their high net worth resulting from strong land value gains. Nonfarm business owners, in contrast, typically have less net worth and are less able to secure credit (Chart 1).

Today, all types of rural businesses are experiencing tighter credit markets. At the height of the financial crisis, bankers reported tightening credit standards for business owners, including farmers. According to Federal Reserve agricultural credit surveys, commercial bankers started raising collateral requirements on farm loans in 2008 with a weaker farm economy.² Senior loan officers at commercial banks also reported raising credit standards on commercial and industrial (C&I) loans.3

Small business owners continue to report challenges obtaining loans. The recession has cut profit opportunities and undermined the creditworthiness of small business owners who find it harder to make loan payments.4 Small business owners continue to report that loan availability has fallen more sharply since the fall of 2008. More business owners are saying their credit needs are not satisfied and they expect credit conditions to worsen.

CHART 1
AVERAGE NET WORTH FOR FARM AND NONFARM BUSINESSES
THAT RECEIVED OR WERE DENIED CREDIT



Source: 2005 Agricultural Resource Management Survey–Farm sole proprietorships; 2004 Survey of Consumer Finance–Nonfarm sole proprietorships

Existing and New Credit Programs

When credit becomes tight, rural business owners often turn to government programs for credit. The Farm Service Agency (FSA) and Small Business Administration (SBA) both offer loan guarantee programs that make credit more available to small rural businesses. The American Recovery and Reinvestment Act (ARRA), recently enacted by Congress, expanded the funds for these loan guarantee programs. Other new credit programs have also been created to expand credit availability.

No one is more acutely aware of the difficulties posed by tight credit markets than small rural businesses. Credit access and its proper use are critical to the success of these enterprises. In fact, recent evidence shows that small rural business owners turned down for credit often suffer revenue declines of up to 45 percent. Small business owners also indicate that tight credit has curtailed investment and employment opportunities.

To spur economic growth, a portion of the recent stimulus package (ARRA) was allocated to provide credit to businesses. To stimulate small business lending, Congress directed \$730 million to the SBA. The funds are used: 1) to lower the fees that borrowers pay for SBA-backed loans; and 2) to increase government guarantees on SBA-backed loans. Small rural business owners should find SBA-backed loans to be both more affordable and more attainable since the government guarantee effectively raises their collateral from

50 percent to 90 percent. While the number of SBA guaranteed loans have declined, the average loan size is up approximately 5 percent from 2008 levels.

ARRA funds will also expand various U.S. Department of Agriculture (USDA) programs. The FSA direct lending program has already allocated \$145 million of the \$173 million allotted ARRA funds.⁶ Farm loan requests to the FSA, the lender of last resort for farmers, have surged to a 20-year high. These funds have allowed more than 2,000 farmers to purchase capital items and meet operating needs.

The SBA and FSA also offer loan

guarantee programs for young and beginning business owners who are most vulnerable to being denied credit. Those with less experience are more likely to be denied credit as they tend to have lower levels of net worth and a more limited track record. Moreover, less- established businesses often lack the financial stability to deal with the negative effects of being denied credit.

ARRA funds are also being used to foster collaborations between USDA and SBA. One such interagency agreement between USDA and SBA exists to manage the Rural Business Investment Program (RBIP). To date, the RBIP has received approximately \$3 billion in ARRA funds for grants and guaranteed loans. These funds will bolster credit availability to rural communities. Future collaborations will be needed for rural communities to reap all of the benefits of these ARRA funds.

In response to the current environment, new private and public partnerships are also being forged to enhance credit access to farms. One such program is between the Independent Community Bankers of America (ICBA) and the Federal Agricultural Mortgage Corporation (Farmer Mac). Community bankers participating in this joint program will have access to Farmer Mac loan products that provide competitive interest rates on agricultural real estate.

MONITORING THE TIGHT CREDIT MARKET

To be sure, how quickly and effectively these new credit programs will alleviate the tight credit market is unknown. However, rural business owners can use a few straightforward gauges to monitor changes in credit conditions. Various Federal Reserve surveys provide information on credit standards and collateral requirements. In addition, a daily indicator known as the "TED spread" can signal when these trends are beginning to turn.

Monitoring Main Street Credit

The Federal Reserve Board of Governors' quarterly survey of senior loan officers provides one gauge of credit market conditions for small business owners in rural areas. Emerging from the survey is the index of credit standards for commercial and investment (C&I) loans, which measures the net percentage of bankers who have changed credit standards. The index is created by subtracting the share of senior loan officers loosening credit standards from the share tightening credit standards. Thus, when credit conditions tighten, the index rises. Conversely, when credit conditions improve, it falls.

The C&I index provides information on how lenders view loan default risk of large and small business owners. At the end of 2008, as the recession and financial crisis deepened, loan default risk rose

significantly. Lenders responded by tightening credit to record-high levels as over 80 percent of bankers reported tightening credit standards for both large and small firms in the third quarter (Chart 2). Today's credit standards are well above levels reported during the 1991 and 2001 recessions and during the Asian financial crisis of 1997-98, when the index reached 52, 45, and 36 percent, respectively.

The C&I index in the current recession has not just risen steeply—but also rapidly. The index took just six quarters to jump from zero to its peak of 80 percent in the third quarter of 2008. During the 2001 recession, the index took ten quarters to rise from zero to its peak of 45 percent. The steep, rapid rise in credit

standards in 2008 was the product of a deep recession combined with a severe financial crisis.

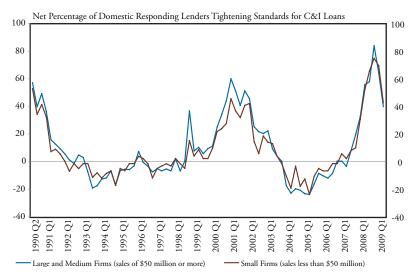
This year, however, some tentative signs of improvements have emerged in both the economy and credit markets. Economic projections expect the recession to ease during the second half of 2009. And, the C&I index declined in the first and second quarter as fewer respondents reported tightening credit standards. The timing and speed of future improvements in credit conditions will depend on improving economic conditions.

Monitoring Agricultural Credit

When loan default risks in the agricultural sector rise, farmers face tighter credit standards in the form of collateral requirements. Several Federal Reserve banks survey agricultural bankers on collateral requirements. ¹⁰ Similar to the C&I index, a collateral requirement index is created by subtracting the share of agricultural bankers lowering collateral requirements from the share who are raising them. As the probability of loan defaults rise, so do collateral requirements.

After the farm debt crisis of the 1980s, the number of agricultural banks raising collateral requirements was high, but waning (Chart 3). Surveys by the Chicago and Kansas City district banks showed that the net percent of agricultural bankers raising collateral requirements peaked in 1992 at 25 percent. By 1994, the figure had fallen to

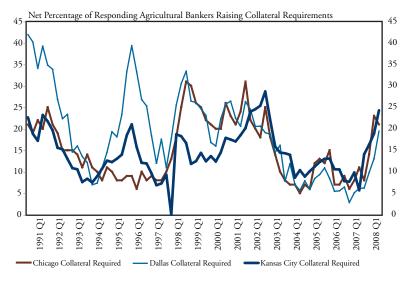
CHART 2
QUARTERLY CREDIT MARKET CONDITIONS FOR NONFARM
BUSINESS OWNERS



Source: Federal Reserve Board's Senior Loan Officer Opinion Survey on Bank Lending Practices

CHART 3

QUARTERLY CREDIT MARKET CONDITIONS FOR FARM
BUSINESS OWNERS



Source: Agricultural Finance Databook

less than 10 percent. In the Dallas district, following the farm and energy bust of the 1980s, collateral requirements eased more rapidly. According to the Dallas survey, 42 percent of agricultural bankers reported raising collateral requirements in 1991. That figure had dropped to 8 percent by 1994.

From 1996 to 2002, the weather contributed to unprecedented fluctuations in collateral requirements. In 1996, a severe drought in the southern plains lowered farmers' income and raised loan default risk. In response, collateral requirements in the Dallas district rose to 40 percent. In contrast, collateral requirements rose less sharply in the Chicago and Kansas City districts because high corn prices had raised farm incomes and lowered loan default risk.

Changes in farm policy have also influenced collateral requirements on farm loans. For example, the 1996 farm bill reduced the farm "safety net." When farm incomes fell in 1998, the lower government payments did not cushion the rise in loan defaults, prompting bankers to increase collateral requirements. After several years of ad hoc subsidy payments to farmers, the 2002 farm bill reestablished a safety net in the form of countercyclical payments. Coupled with a rebound in U.S. farm incomes, loan default risk faded and bankers responded by uniformly lowering collateral requirements.

Today, collateral requirements in all districts have risen with a collapse in global demand for agricultural products and the financial crisis. The collateral requirement indexes have risen to roughly 25 percent. The indexes are still below historic highs, though, partly because agricultural and rural markets have been less affected by the financial crisis and recession. Whether agricultural lenders will tighten credit further is yet to be seen. The answer depends largely on how soon the global economy begins to recover and when the U.S. financial crisis is resolved.

Monitoring Banking Credit

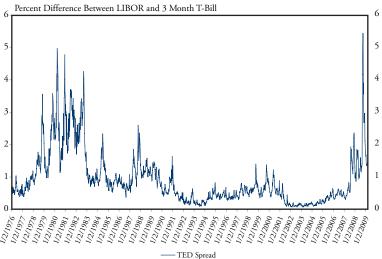
The Federal Reserve surveys described above indicate how banks respond to increased risks on Main Street and at the farm gate. But to understand fully how credit markets ultimately affect rural business owners, it is necessary to

gauge how banks are responding to credit market risk. As credit market risk rises, the cost of funds for banks also rise, diminishing profits and leaving banks less likely to extend credit to rural business owners. Rural business owners can monitor the current state of the funding environment, as well as the financial crisis, on a daily basis by following the TED spread.¹¹

The TED spread is an up-to-date proxy of credit risk based on daily financial market movements. The spread is the difference between the LIBOR, an interest rate reflecting the risks of bank-to-bank lending, and the risk-free rate (3-month T-bill)¹². As the spread widens, banks become less likely to lend to one another. The spread widens when the LIBOR rises—that is, when the risks of interbank lending rise. The spread also widens when the risk-free rate falls. As the spread narrows, interbank lending is considered less risky because the lending rate and the risk-free rate are approaching each other. When this happens, bank-to-bank credit markets are likely to become more fluid. In turn, the cost of funds for banks drops, and banks are likely to increase lending to each other and to small business owners.

At the end of 2007, with the recession and financial crisis deepening, the TED spread rose sharply, surging to 2.5 percent (Chart 4). Such an increase was not unprecedented, as the spread had reached 2.5 percent

CHART 4
TED SPREAD FROM JANUARY 2, 1976 TO MAY 22, 2009



Source: Federal Reserve Board's End of Week Data on LIBOR and 3 Month T-Bill

during the savings and loan crisis of the late 1980s and peaked at 5 percent during the turbulent late 1970s and early 1980s.

However, at the height of the current financial crisis, credit markets deteriorated abruptly. In the fourth quarter of 2008, the TED spread peaked at 5.4 percent, well above the high in the 1980s. Two key factors contributed to this steep rise. First, financial and credit markets went to the brink of collapsing, sending the LIBOR up 3 percentage points. Second, the Fed responded by lowering the federal funds rate to the zero bound, which played a part in 3-month T-bill rates falling nearly to 0 percent. Thus, the two interest rates used to calculate the TED spread headed in opposite directions, causing an extraordinary rise in the spread. Bankto-bank lending essentially froze, causing lenders to raise credit standards for rural business owners, as witnessed by respondents to the Federal Reserve System surveys.

Fortunately, bank-to-bank lending did not remain frozen for very long. Within months, the TED spread fell from 5.4 percent back to 1.5 percent. After the sharp rise in market risk, the Federal Reserve cut the fed funds rate and pumped liquidity into the marketplace. Credit risk dissipated quicker than in the 1980s when the Federal Reserve was fighting inflation by restricting liquidity.

Although today's added liquidity has eased credit market risks, the TED spread remains elevated, indicating that financial markets are still fragile. A sustained, lower TED spread would signal that credit is flowing more freely, both from bank-to-bank and ultimately to rural business owners.

CONCLUSIONS

Access to credit and its proper use are extremely important in today's business environment. With rising default rates, farmers and rural business owners should be prepared to bear some additional risks to receive credit. However, federal and state agencies, banks, and other credit market participants are collaborating on new ways to ensure credit is flowing to rural America. Indeed, credit markets are still tight, but gauges of the credit market indicate some recent improvements.

Even though some signs of improvement are emerging, the economic and financial crisis is still limiting credit access. Operating in such a volatile environment is difficult for farmers and business owners. And while the current crisis is largely out of their control, they need not be uninformed. Monitoring Federal Reserve System surveys and the TED spread can help farmers and rural business owners monitor the global economy and recognize when credit markets begin to improve.

ENDNOTES

- National Small Business Association, 2009 Small Business Credit Card Survey.
- ² Federal Reserve agricultural credit survey data can be obtained from the Agricultural Finance Databook at http:// www.federalreserve.gov/releases/e15/.
- ³ The Senior Loan Officer Opinion Survey on Bank Lending Practices can be accessed at http://www.federalreserve.gov/boarddocs/snloansurvey/.
- ⁴ Business owner perspectives on credit markets were obtained from the National Federation of Independent Businesses, Small Business Trends, May 2009, http://www.nfib.com/Portals/0/PDF/sbet/sbet/200905.pdf.
- ⁵ Briggeman, B.C., C.A. Towe, and M.J. Morehart, "Credit Constraints: Their Existence, Determinants, and Implications for U.S. Farm and Non-farm Sole-Proprietors," *American Journal of Agricultural Economics*, 91(2009): 275-289.
- ⁶ Information was taken from FSA's website: http://www.fsa.usda.
- ⁷ Briggeman, B.C., C.A. Towe, and M.J. Morehart, "Credit Constraints: Their Existence, Determinants, and Implications for U.S. Farm and Non-farm Sole-Proprietors," *American Journal of Agricultural Economics*, 91(2009): 275-289.
- ⁸ This collaboration is due to an amendment to the 2002 Farm Bill.
- ⁹ The Senior Loan Officer Opinion Survey on Bank Lending Practices can be accessed at http://www.federalreserve.gov/ boarddocs/snloansurvey/.
- ¹⁰ The following Federal Reserve Banks have an agricultural credit survey: Chicago, Kansas City, Minneapolis, Dallas, and Richmond. They can be accessed at the Federal Reserve Board's Agricultural Finance Databook at http://www.federalreserve.gov/releases/e15/.
- ¹¹TED is an acronym for treasury bill (T) and the ticker symbol for the Eurodollar futures contract (ED). The TED spread summarizes the relationship between the interbank loan interest rate, known as the London Interbank Offered Rate (LIBOR), and short-term U.S. government debt or the three-month treasury bill (T-Bill) interest rate.
- ¹²The following website updates the TED spread in real time: http://www.bloomberg.com/apps/quote?ticker=.
 TEDSP%3AIND.