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FEDERAL RESERVE BANK of KANSAS CITY

AGRICULTURAL CREDIT STANDARDS TIGHTEN

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Agricultural borrowers are increasingly concerned about access to credit. Amid economic weakness and a financial crisis, commercial banks have tightened credit standards for various types of loans. While agricultural borrowers may be concerned about credit availability, agricultural lenders are equally concerned about the creditworthiness of agricultural borrowers as the farm economy weakens.

As the financial crisis deepened, agricultural banks outperformed other commercial banks—but they still saw their profits decline. Despite questions regarding credit availability, commercial banks are extending credit to agricultural borrowers at lower interest rates. The soft erosion in agricultural loan quality, however, has led agricultural lenders to tighten credit standards and shift more financial risk to borrowers.

SOLID, BUT FALLING PROFITS AT AGRICULTURAL BANKS

The U.S. financial crisis has trimmed the profitability of agricultural banks and other commercial banks. However, agricultural banks performed much better than their banking peers. The strongest performance emerged from smaller agricultural banks.

Based on *Agricultural Finance Databook* information, the financial performance of agricultural banks weakened

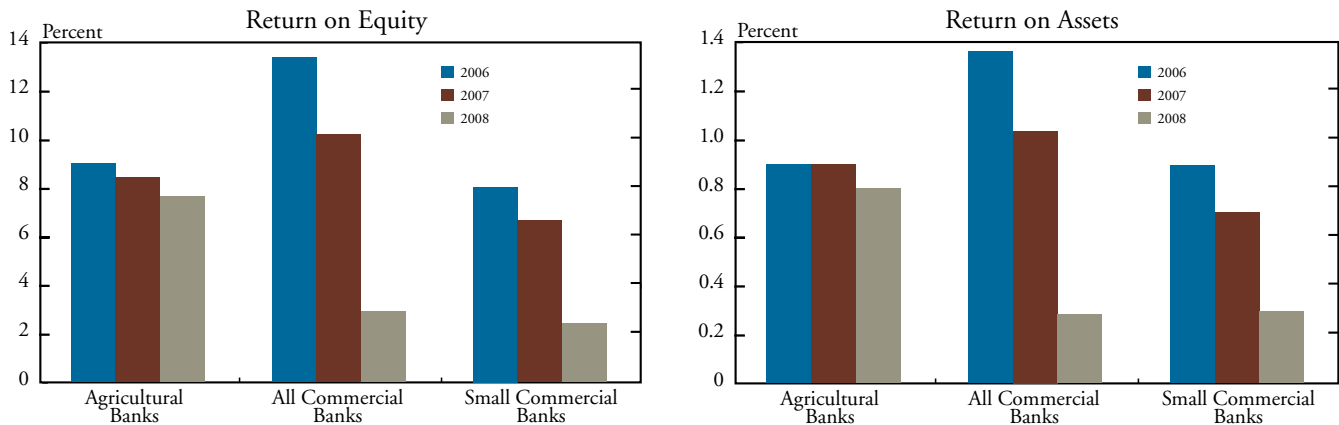
in 2008.¹ The Federal Reserve defines agricultural banks as commercial banks with agricultural loans accounting for more than 14 percent of their loan portfolio.² According to the Federal Reserve, the average return on assets and equity at agricultural banks steadily declined in 2008. By September 2008, the return on equity at agricultural banks declined to 7.6 percent, and the rate of return to assets edged down to 0.8 percent (Chart 1).

Agricultural bank returns, however, were much stronger than returns at other commercial banks. By September 2008, returns for all commercial banks had plummeted more than 70 percent, with the return on equity dropping to 2.86 percent and return on assets falling to 0.28 percent.³ Agricultural banks also had much stronger performance than other similarly sized small commercial banks, those with less than \$500 million in assets. The return on equity and assets at smaller banks was 2.4 and 0.3 percent, respectively, well below the returns at agricultural banks.

Several factors contributed to the dip in agricultural bank profits. First, interest rates on agricultural loans have declined, trimming gross revenue on loan activity. According to agricultural credit surveys from the Federal Reserve, interest rates on all types of agricultural loans have dropped significantly below 2006 levels.⁴ The average

CHART 1

AVERAGE RETURN ON EQUITY AND ASSETS AT COMMERCIAL BANKS (THIRD QUARTER)



Source: Board of Governors of the Federal Reserve and FDIC

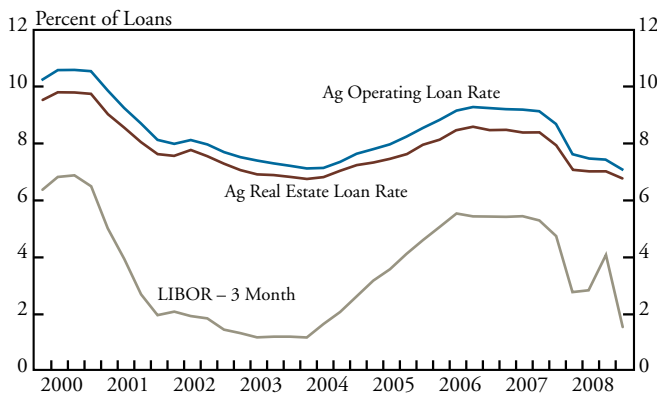
Agricultural banks are banks with agricultural loans accounting for 14% or more of their loan portfolio. Small commercial banks are banks with less than \$500 million in assets.

interest rate on operating loans dropped from more than 9.0 percent in 2006 to 7.0 percent in the fourth quarter of 2008. During the same time, the average rate on farm real estate loans fell from roughly 8.5 percent to 6.75 percent.

A rise in the cost of capital also squeezed bank profits. One measure of the cost of funds is the London Inter-Bank Offered Rate (LIBOR), the rate banks pay to borrow funds from other banks in the London money market and a benchmark for other short-term interest rates. In September, the financial crisis fueled a spike in LIBOR, which raised the cost of funds for banks. The spread between the interest rate paid to acquire funds (LIBOR) and the interest rate earned on agricultural loans narrowed, suggesting lower profit margins (Chart 2). In the fourth quarter, the spread

CHART 2

AGRICULTURAL LOAN INTEREST RATES AND LIBOR



Source: Federal Reserve Bank of Kansas City

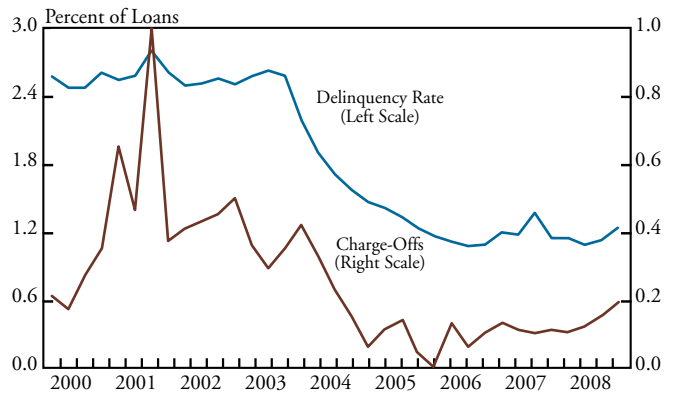
widened as LIBOR fell sharply, suggesting some improvement in bank profitability.

However, loan delinquencies have edged up, trimming agricultural loan profitability. In 2008, delinquency rates on agricultural loans climbed steadily from 1.08 percent in the first quarter to 1.23 percent in the third quarter (Chart 3).⁵ At the same time, net charge-offs on agricultural loans rose from 0.12 to 0.19 percent. Delinquency rates and net charge-offs on agricultural loans rose faster in the largest 100 U.S. banks. In fact, at smaller commercial banks, delinquency rates on agricultural loans actually declined.

Delinquency rates and net charge-offs on agricultural loans remain well below other types of loans and help explain the relative strength of agricultural bank

CHART 3

CHARGE-OFFS AND DELINQUENCY RATES ON AGRICULTURAL LOANS



Source: Board of Governors of the Federal Reserve System

profitability. For example, the delinquency rate on all types of loans and leases was 3.65 percent in the third quarter of 2008, almost triple the rate on agricultural loans. Net charge-offs were 1.46 percent, more than seven times the size of net charge-offs on agricultural loans.

IMPACT ON AGRICULTURAL LENDING

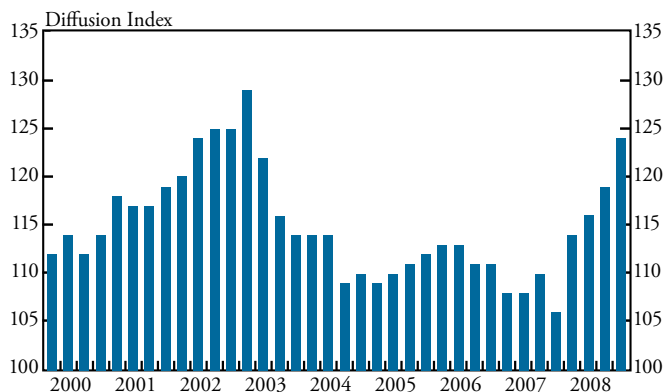
Despite their relatively strong performance, agricultural banks tightened lending standards to preserve capital and manage the risk arising from the economic downturn. Agricultural banks continue to originate agricultural loans at relatively low interest rates. However, banks are increasing collateral requirements and shrinking loan maturity as agricultural loan quality deteriorates.

Agricultural banks, in general, report ample funds available for operating loans. For example, according to the agricultural credit survey of the Federal Reserve Bank of Kansas City, 70 percent of bankers reported the amount of funds available for farm operating loans in the fourth quarter of 2008 was unchanged from the year before, with an additional 14 percent having more funds available. And these banks expected to have roughly the same amount of funds available in the first quarter of 2009. Moreover, only 4 percent of the bankers reported refusing a loan due to a shortage of funds, the same percent as in 2007.

Nevertheless, agricultural bankers responding to the Kansas City Fed's agricultural credit survey reported raising collateral requirements on operating loans.⁶ In the fourth quarter of 2008, the collateral requirements index rose almost 20 percent above year-ago levels (Chart 4).⁷ Other Federal Reserve data indicate that farm real estate accounted for roughly 17 percent of the collateral used for the nation's farm operating loans in the fourth quarter of 2008, up modestly from previous years. The use of farm real estate as collateral was more prevalent in larger operating loans. Moreover, small and mid-sized banks tended to use farm real estate as collateral more often than larger banks.⁸

The increase in collateral requirements does not appear to have severely restricted loan activity in the agricultural sector. In fact, farm debt levels rose through 2008. By the third quarter of 2008, farm debt held at commercial banks was 8.2 percent above year-ago levels, with real estate debt up 10 percent and non-real estate debt up 6.3 percent. The volume of non-real estate loans rose sharply in the fourth

CHART 4
COLLATERAL REQUIRED ON AGRICULTURAL OPERATING LOANS IN TENTH FEDERAL RESERVE DISTRICT



Source: Federal Reserve Bank of Kansas City

quarter, with increases to both the crop and livestock sectors.

While banks still made loans, they adjusted loan terms in response to the increased risk associated with farm lending. The average risk rating on agricultural loans edged up in 2008, and bankers continued to report deteriorating loan quality as livestock profits were elusive and margins declined for the crop sector.⁹ And carry-over debt appears to be rising, as more agricultural bankers reported an increase in operating loan renewals and extensions in the fourth quarter. In response to higher risk, banks reduced the length of operating loans. For example, after steadily rising since 2001, loan maturity on agricultural loans dropped 20 percent, to 12 months, in the fourth quarter of 2008. Simply put, as agricultural risk increased, banks were more reluctant to extend loans for longer periods of time.

RISKS TO AGRICULTURAL LENDING IN 2009

The recession poses many risks to agricultural lending in 2009. In terms of supply, the further deepening of the financial crisis could limit funds for agricultural loans. At the same time, a weaker farm economy could erode the creditworthiness of agricultural borrowers when loan needs are most pressing.

A primary risk to agricultural lending is the availability of funds. Banks can raise funds from a variety of sources—equity and debt markets, deposits, and nontraditional sources such as Federal Home Loan Banks. A deeper financial crisis could threaten a bank's ability

to raise funds from nondepository sources. For example, some large agricultural lenders have struggled to raise debt capital by issuing commercial paper. After peaking in November 2007, the volume of commercial paper issued by domestic financial institutions had dropped roughly 15 percent by the fourth quarter of 2008. Moreover, equity values of larger banking institutions have fallen, which also limits their ability to raise capital.

Bank deposits are a major source of loanable funds for agricultural banks. The risk is that lower interest rates on CDs and other savings vehicles could slow bank deposit growth, limiting funds available for agricultural loans. Through the third quarter of 2008, domestic deposits at agricultural banks remained above 2007 levels, according to the FDIC. Still, rising job losses from the recession pose a risk to deposit growth because people could lose their income stream and tap savings for household needs. In turn, fewer deposits could limit funds for agricultural loans.

Despite these risks, smaller agricultural banks have access to federal government and Federal Reserve funds. In response to higher risk, agricultural bankers indicate they are increasing their use of guarantees from the U.S. Department of Agriculture's Farm Service Agency. Moreover, small agricultural banks have access to primary and secondary credit funds through the Federal Reserve's discount window and have the ability to request funds for seasonal credit, especially during the planting and harvest seasons, when funding needs are more significant.¹⁰

Another pressing concern is the creditworthiness of agricultural borrowers. In 2009, profit margins for crop producers are expected to narrow, and profitability

for livestock producers is expected to remain elusive (Henderson and Akers). While loan defaults remain low, delinquency rates, charge-offs, and risk ratings are rising, and continued deterioration in the agricultural economy could further erode the creditworthiness of agricultural borrowers. Further weakness in agricultural loan quality could lead to additional tightening of lending standards and an increase in loan denials for agriculture.

Also, the expected decline in agricultural income has contributed to softer farmland values. Agricultural credit surveys from the Federal Reserve indicate that farmland values edged down in the fourth quarter of 2008. Farmland is a major source of collateral for agricultural loans, especially for smaller agricultural banks. The decline in farmland values could shrink the amount of collateral available for agricultural loans.

In sum, the financial crisis and resulting recession have dimmed economic prospects for the agricultural economy and trimmed profits at agricultural banks. Still, agricultural banks have performed much better than other commercial banks and appear to have funds available for agricultural loans. However, a steeper downturn in the agricultural economy could erode the creditworthiness of borrowers and further tighten credit standards on agricultural loans. With the combination of weaker profits at financial institutions and rising risk on agricultural loans, agricultural borrowers are being asked to accept more of the financial risk emerging from a volatile agricultural environment.

ENDNOTES

- ¹ Unless otherwise noted, statistics on agricultural bank performance and agricultural lending were obtained from the Federal Reserve's *Agricultural Finance Databook*, www.federalreserve.gov/releases/e15/default_2008.htm.
- ² Agricultural banks have an agricultural loan concentration higher than the average agricultural loan concentration for all commercial banks. In 2008, the average agricultural loan concentration was 14 percent.
- ³ Commercial bank statistics are obtained from the Federal Deposit Insurance Corporation (FDIC), www.fdic.gov/bank/statistical/index.html. The FDIC identifies agricultural banks as those with 25 percent of the loan portfolio concentrated in agricultural loans. As a result, the FDIC cohort of agricultural banks is limited to smaller banks than the Federal Reserve definition. Their return on assets and equity dropped to 1.01 and 9.21 percent, respectively, by the end of the third quarter, slightly stronger than the returns on Federal Reserve agricultural banks, suggesting that smaller agricultural banks are outperforming the mid-sized agricultural banks.
- ⁴ Data obtained from Federal Reserve agricultural credit surveys can be obtained from the *Agricultural Finance Databook*, www.federalreserve.gov/releases/e15/default_2008.htm, or from the Federal Reserve Bank of Kansas City, www.kansascityfed.org/agcrsurv/agcrmain.htm.
- ⁵ Charge-off and delinquency rate data were obtained from the Board of Governors of the Federal Reserve, www.federalreserve.gov/releases/chargeoff.
- ⁶ Commercial banks have also tightened credit standards on other types of loans. According to the Senior Loan Officer Survey conducted by the Federal Reserve, commercial banks, in general, have tightened credit standards on all types of consumer and business loans (commercial real

estate and C&I loans). Over 80 percent of commercial banks reported tightening credit standards for mortgage, consumer installment, credit cards, commercial real estate and C&I loans in 2008.

- ⁷ Bankers indicated whether collateral requirements during the current quarter were higher than, lower than, or the same as in the year-earlier period. The diffusion index number was computed by subtracting the percent of bankers who responded "lower" from the percent who responded "higher" and adding 100.
- ⁸ Small and mid-sized farm lenders had less than \$25 million in farm loans. Large farm lenders had more than \$25 million in farm loans. See the *Agricultural Finance Databook* for a more detailed description.
- ⁹ See Henderson and Akers (2009) for a summary of farm profitability in 2008.
- ¹⁰ More information on the Federal Reserve's discount window and seasonal credit program is available at www.frbdiscountwindow.org/index.cfm.

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