Banking IN THE NINTH

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NINTH DISTRICT HIGHLIGHTS

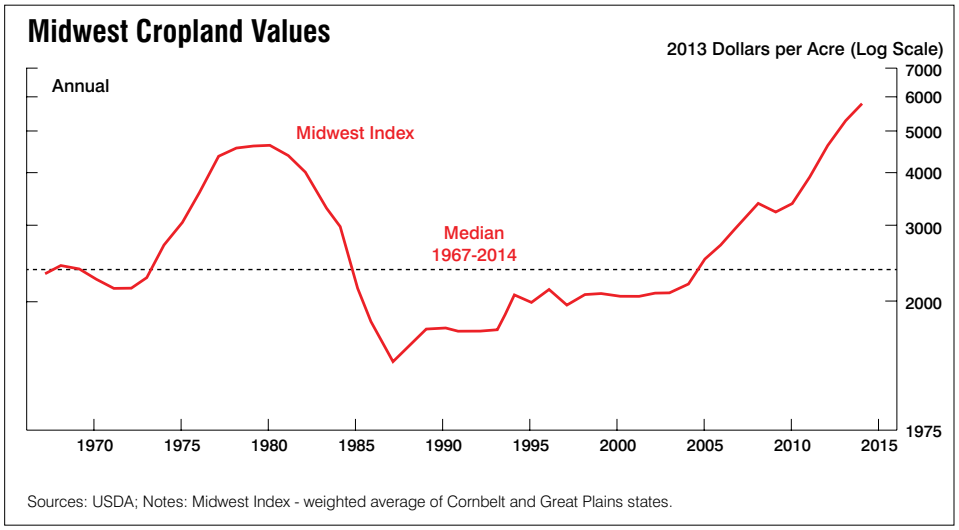
Implications of a Fall in Agricultural Land Values for Commercial Banks

Ron Feldman

A simple graph of agricultural land values in the Midwest over time (see right) must give Ninth District readers pause for four related reasons.

- Land values have reached record levels after a very steep climb.
- The factors associated with rising agricultural land values, such as output prices for major commodities, have reversed.
- Many banks in the Ninth District have significant exposure to the agricultural sector.
- Many banks failed the last time agricultural asset values fell after such a rise.

What would a fall in agricultural land values mean for banks today? How much would loan losses go up? How far would capital fall? What would happen to the chances of bank failure?



I have worked with my colleague Joseph Smith to try to answer these questions. Our initial take is that most "agricultural banks" (defined below) would suffer manageable losses if agricultural land values fell a lot. A smaller number of banks particularly sensitive to a fall in land values could experience much larger losses.

These initial results are very uncertain in two ways. First, we base the answers on statistical analysis that relies on the best but very imperfect data we have. The results come with the inherent large range of possible outcomes that such analyses produce.

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SAFETY & SOUNDNESS UPDATE

Managing Risks of Loan Participations, Including Platform Loans

By Matthew Nankivel, Manager

Some community banks exploring ways to improve earnings given weak local loan demand have begun or returned to purchasing loan participations. The financial crisis highlighted several risky features of participations, including challenges to implementing effective workout plans and weaknesses in underwriting by the loan purchaser. In this context, we have seen an increase in participations purchased from so-called platform lenders. Platform lenders use an online business model to extend both household and commercial credit to borrowers often funded

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by individuals or banks. Platform lending raises risks associated with traditional participations and potentially raises additional risks too.

This article focuses on some of the risk management practices appropriate for the purchase of participations, including those from platform lenders. It closes with a discussion of additional risk considerations associated with platform lending.

Effective Risk Management Practices for Managing Loan Participations

Many of the risk management practices that apply to traditional loan participation activity also apply to platform lending. The following are among the most important:

Setting appropriate risk limits: A community bank's board should develop appropriate risk limits prior to purchasing participations,[1] including those originated by a platform lender. The board should be sure to consider long-term (through the economic and credit cycle) risks of the purchased portfolio when setting limits in order to effectively mitigate downside risk. An effective way to accomplish this is by setting participation limits based on capital levels rather than as a percentage of the loan portfolio (or segment). The board should consider setting limits on the following:

- The total volume of out-of-area participations, as they typically present underwriting and oversight challenges different from locally generated loans.
- The aggregate amount of loans purchased from (or serviced by) a single outside source to manage counterparty risk.
- The aggregate volume of loans in various geographies and to particular industries to manage concentration risk.

The board is more able to include the purchased loan activity in strategic and capital planning if it establishes effective limits early.

Underwriting: Management should apply the underwriting standards it uses for loans the bank originates when it evaluates platform loans for purchase just as it should with other participations. In other words, the bank should perform independent due diligence, including critical analysis of repayment sources, borrower financial condition and collateral for each loan. Management should ask, "Would the bank make a similar loan at similar terms to a local borrower?"

Ongoing monitoring: Banks involved in purchasing participations, including from platform lenders, need to understand how they will monitor borrower financial conditions once the loan is originated. The bank should review purchased credits, whether platform loans or traditional participations, similar to other loans, including monitoring the borrower's financial performance, appropriately risk-rating the loan and monitoring compliance with loan covenants.

Other Risk Considerations Associated with Platform Lending

The first step for a bank considering entering into an agreement to purchase loans from a platform lender is to understand the risks that may be associated with the activity as outlined in the contract with the originator. Some questions about risks that banks should ask include the following:

- **Credit risk:** If a credit scoring model is used by the platform lender to underwrite the loans, is the model based on sound underwriting practices, and does the bank have access to the model's algorithms to ensure that the model is consistent with the bank's risk appetite?
- **Compliance risk:** What compliance risks arise from platform loan purchases? The nature of potential compliance risk depends on the structure of the relationship between the platform business and the bank as well as on the transactions themselves. For example, the bank must assure itself that any credit scoring model used does not rely on impermissible factors or result in fair lending concerns. Further, the bank should consider compliance considerations if there is a substantial difference between the rate paid to the platform lender by the underlying borrower and the rate the bank receives from purchasing the loans. Finally, the bank should ensure that the lender is meeting applicable disclosure requirements and complying with relevant state or federal laws.
- **Vendor management risk:** What vendor management does the bank need to engage in? An effective vendor management program has many features including, but not limited to, underwriting and monitoring the financial condition of the originator/servicer. Further, the bank should understand how the vendor will comply with information security requirements.
- **Accounting risk:** The bank should assess whether the purchases qualify as a true sale and how this determination affects the legal lending limit for the loans purchased. For example, will all loans purchased from a single platform be combined when determining if the bank conforms to lending limits?

Summary

Purchasing participations can be an appropriate strategy for community banks to increase earnings; however, an effective program must include strong governance, underwriting and ongoing monitoring systems. Management must consider all risks, including those posed by the originator and servicer.

[1] Commercial Bank Exam manual federalreserve.gov/boarddocs/supmanual/supervision_cbem.htm

Second, our results depend significantly on the degree to which relationships between variables such as agricultural land values or agricultural income and bank loan performance today are the same as those relationships from the last agricultural banking crisis or have relaxed. If the relationship has not changed, losses will be higher. I offer more details on our analysis after providing a few facts on agricultural banks in our district.

Ninth District Agricultural Banks

49 percent of banks in the Ninth Federal Reserve District, or 279 institutions, are "agricultural banks." That is, more than 25 percent of their loans are secured by agricultural real estate or are made for the purpose of agricultural production. We view 26 percent of Ninth Federal Reserve District banks as being very concentrated in agriculture, with more than 50 percent of their loans for agricultural production or secured by agricultural real estate.

Two additional factors set the context for the exposure of these banks to changes in the agricultural economy. First, lending by Ninth District agricultural banks has been growing at a steady pace. For the median district agricultural bank, lending has grown at an annual rate of 3.6 percent since 2010 versus 0.3 percent for the median nonagricultural bank. Second, capital levels of agricultural banks and nonagricultural banks are roughly the same regardless of concentration. The median capital level (Tier 1 leverage ratio) for nonagricultural banks was 10.1 percent. For banks with more than 25 percent but less than 50 percent of their lending to agriculture, it was 9.7 percent. Finally, for banks with more than 50 percent of their lending to agriculture, the median capital level was 10.3 percent. Thus, there does not seem to be a stable relationship between capital and concentration. None of these facts means that a fall in agricultural land values leads to big problems. They do suggest good reasons to be cautious.

Estimating the Effect of a Fall in Land Values

We have to make many assumptions to estimate how a fall in agricultural land values translates into potential problems for the agricultural banking sector. I describe a few. We first have to assume how far land values fall. We pick several potential declines but will focus in this summary on a 25 percent fall in one year. Such a very large fall mirrors the worst two years in the prior agricultural crisis, and thus represents a "tail event."

We then have to choose a particular statistical approach. We rely on two methods that economists at the Federal Reserve have used for other types of quantitative "what-if" analyses of banks. One method focuses on the "average" bank, while the other allows for examination of banks particularly sensitive to a given bad event, like a fall in real estate values.

We then have many decisions to make about which data to use in the analysis. To list just two:

- What happens to other variables (e.g., the condition of agricultural producers or agricultural output prices) when land values fall?

We view 26 percent of Ninth Federal Reserve District banks as being very concentrated in agriculture, with more than 50 percent of their loans for agricultural production or secured by agricultural real estate.

- How do we incorporate banking experience from the agricultural banking crisis into the analysis if we think underwriting of loans and economic conditions today are not the same?

Space limitations prevent a full description of choices we had to make in this note, but we will present a full paper on our analysis at the Federal Reserve and Conference of State Banking Supervisors Community Banking in the 21st Century, Research and Policy Conference. The statistical approach suggests results for the "representative" bank but cannot project the impact of falling land values on any particular bank. Management at each agricultural bank should assess the potential effect of a decline on their institution and take appropriate measures to control their risk exposure.

What do we find?

- We find relatively low losses for the average agricultural bank, even when we structure our analysis to maximize the downside effect of a fall in land values (e.g., by focusing on the experience in the last agricultural banking crisis). We estimate that the net charge-off rate of the average bank would jump from 0.2 percent to between 1.22 percent and 1.77 percent at its worst. We also estimate a decline in capital of around 134 to 183 basis points over two years, assuming the 25 percent fall in agricultural land values and related bad outcomes.
- In contrast, there are banks that the data suggest are more vulnerable to a downturn in the agricultural land values than the average agricultural bank. Think of these banks as being at the "far end" (i.e., 95th percentile) of the distribution of agricultural banks in terms of the outcomes they will suffer when land values and producer income fall. We estimate that the net charge-off rate of these outlier banks would jump from 1.1 percent to between 3.0 percent and 4.5 percent. In addition, we estimate declines in capital of 163 to 298 basis points over two years, assuming the 25 percent fall in agricultural land values and related bad outcomes. These banks have the worst 5 percent experience in the hypothetical agricultural downturn which, by definition, makes them unusual. But 5 percent of all U.S. agricultural banks (as defined in our study) represents 92 institutions, a number that is significant from the standpoint of bank system stress.

Again, I must emphasize the uncertainty of any prediction along the lines I just described. That said, I am confident that banks can protect themselves from bad outcomes through effective risk management of their agricultural exposure, a topic covered well in prior Federal Reserve guidance (see "SR 11-14", 2011).

Center for Indian Country Development

On August 17, the Federal Reserve Bank of Minneapolis officially launched the Center for Indian Country Development (CICD), whose mission is to help self-governing communities of American Indians in the United States attain their economic development goals. The CICD will build on the Minneapolis Fed's 25-year legacy of working in Indian Country to promote access to capital and financial services, tribal commercial laws, and Native American entrepreneurship.

What does this mean for banking organizations in the Ninth District? Three points are particularly important in this regard.

First, the areas of focus for the Center are often also of great interest to financial institutions. In particular, the Center will explore opportunities to help address challenges and barriers to the productive use of tribal lands and the effective use of government programs for Indian Country housing and infrastructure development. More specifically, and to highlight just one example, the Center will continue the Minneapolis Fed's work on tribal commercial law initiatives, including support for the Model Tribal Secured Transactions Act and related lien filing systems that facilitate collateralized lending on reservations.

Second, the Center will do its work through collaboration with many organizations. The Center especially views financial institutions as very important partners in its work, including collaborations with Indian Business Alliances and Native Community Development Financial Institutions. Specifically, the Center plans to host problem-solving events related to commercial law issues, identification of lending and investment opportunities in Indian Country (including those that may be eligible for Community Reinvestment Act consideration), and other topics of interest to financial institutions serving Indian Country. The Center also expects to help create better data to support Indian Country decision makers, including both borrowers and lenders.

Finally, bankers' suggestions are welcome regarding the topics and audiences the CICD should target with its events. Bankers' insights into Indian Country economic development issues and opportunities that the Center should focus on are also welcome. Provide any suggestions or input to the CICD by emailing **CICD@mpls.frb.org.**

Learn more about the Center for Indian Country Development and its Leadership Council through the Center's website at minneapolisfed.org/indiancountry.

CREDIT / PAYMENT SYSTEM RISK UPDATE

Updated Collateral Margins Table

By Stefanie Kiihn, Financial Analyst III

On August 3, 2015, the Federal Reserve updated the collateral margins table used for discount window lending and payments system risk purposes. Collateral margins are advance rates that the Federal Reserve applies to the market value of pledged assets to determine the amount of credit available to the pledging depository institution (DI). As an example, a U.S. Treasury bill with a value of $100,000 would be multiplied by the 99 percent margin assigned to that asset type to determine that a DI could borrow up to $99,000. This article briefly summarizes the changes to the collateral margins and their impact on Ninth District DIs.

The Federal Reserve periodically updates collateral margins to better manage its market and credit risk. Better market data and improvements in valuation methodology drive the margin changes. The August update made adjustments to the overall margin rates and includes the following methodology changes:

- Eligible certificates of deposit (CDs) were previously limited to a maximum term of five years. CDs with terms of 5 to 10 years and over 10 years will now be eligible for pledging. The Federal Reserve will assign new margins to CDs based on length of term.
- DIs will now submit student loans as individually deposited loans instead of group deposited loans. The Federal Reserve margins will reflect time remaining until maturity and interest rate of each pledged loan.

The Federal Reserve of Minneapolis analyzed all Ninth District depository institutions' discount window loans and payments system risk requirements relative to the pending change in collateral values. We notified any DI whose pledged collateral value was expected to be materially reduced or become insufficient. The overall impact on Ninth District institutions was minimal, with just a few institutions forecasted to have small valuation declines. However, some institutions saw collateral value increases as a result of the methodology changes.

We encourage all DIs to closely monitor their pledged collateral as it pertains to discount window access and collateralized intraday credit. The new collateral margins table and a list of eligible asset types are available at frbdiscountwindow.org. Ninth District institutions may also contact the Credit/PSR/Reserves section of the Division of Supervision, Regulation and Credit toll free at 877-837-8815.