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**AGRICULTURAL TRENDS AND ISSUES: IMPLICATIONS FOR COMMERCIAL BANK
LENDERS**

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Agricultural Trends and Issues: Implications for Commercial Bank Lenders

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The opinions expressed in this paper are those of the author, and do not represent the views of the Federal Reserve Bank of Chicago or the Federal Reserve System.

Abstract

This paper cites several issues and trends currently affecting U.S. agriculture and identifies a group of implications for commercial banks involved in farm lending. The topics considered here include farm programs, exports, structural change, and new technology. In addition, an overview is presented of competition in farm lending markets and the use of non-deposit funds by commercial banks.

Agricultural Trends and Issues: Implications for Commercial Bank Lenders

Introduction

Several farm-related issues have increasingly drawn national attention. In 1999, poor economic conditions in agriculture and federal largess resulted in the U.S. farm sector receiving a record level of support payments totaling an estimated \$22.5 billion. Put another way, federal subsidies accounted for an astonishing 45% of net income to the farm sector in 1999. Given this level of support, many observers (including several members of Congress) have called for a re-thinking of the farm legislation passed in 1996. The closing months of 1999 also brought a fight in Congress over dairy policy, and the level of controversy surrounding genetically engineered crops rose to new heights. In addition, a new round of world trade negotiations convened in Seattle, only to be disrupted and cut short by demonstrations. The resolution of trade issues is critical to the future performance and health of the U.S. agricultural sector, which exports over 20% of its output. And though the recipient of considerably less media attention, the evolving issues of risk management in production agriculture and competition among farm lenders also have an important impact on participants in our food system.

The Federal Reserve Bank of Chicago has been very active in educating members of its bank supervision and regulation staff about the issues and trends that affect U.S. agriculture in general and Midwest agriculture in particular. An important impetus for this education is that the issues listed above hold the potential for a significant impact on the farm loan portfolios of community and agricultural banks in the Seventh Federal Reserve District, which encompasses Iowa and most of Illinois, Indiana, Michigan, and Wisconsin.¹ The impact on banks is not only transmitted through production agriculture's links to the commercial banking system, but through

¹ The term "agricultural banks" refers to banks holding a significant concentration of farm loans within their loan

linkages to the farm input supply and food processing industries, which also form an important component of the Midwest economy.

In particular, there are four primary benefits from providing bank supervisory personnel with current agricultural-related information. First, this information is needed by bank examiners in order to evaluate the risks in farm loan portfolios, since many examiners do not have a background in production agriculture or the food system. Second, an understanding of the farm economy helps examiners assess the viability of agricultural banks against the backdrop of the current farm economic downturn. Third, it improves the communication between bank supervisory personnel and commercial bankers. Lastly, it enables examiners to adopt a pro-active approach towards dealing with commercial bank loans that are experiencing problems due to events in the farm economy.

This paper provides a discussion of several “hot” issues currently affecting agriculture and the implications for commercial banks. While this is of particular interest to bank supervisory personnel, commercial bank lenders will also benefit from a review of the farm-related issues. This is especially true of those banks with a significant concentration of farm loans in their portfolios. In short, the issues considered here are recent changes in farm policy, agricultural exports, technological change, risk management, competition in farm lending, and bank funding. The identification of these issues and the perspective of this paper stems largely from within the Federal Reserve System, which should be of interest to lenders, economists, and others involved in the agricultural finance industry.

What's Happening in Washington?

Changes in Farm Programs

A significant shift in U.S. farm policy resulted from the 1996 farm bill, typically referred to as the FAIR (Federal Agricultural Improvement and Reform) Act or the Freedom-to-Farm Act. Several key policy changes were introduced (Knutson, et al). Target prices were eliminated and the linkage between subsidy payments and production/prices was severed. Subsidy payments were to be fixed and declining through 2002. (However, Congress boosted payments in both 1998 and 1999.) Acreage set-asides were done away with and farmers were given greater flexibility in their planting decisions. The bill also eliminated a farmer-owned grain reserve that had been used by the federal government to cushion price swings. It is unlikely these changes would have occurred had it not been for Republican control of Congress and rising grain/oilseed prices that were spurred by strong export demand.

The change in farm programs has a differential impact across geographic regions due to spatial differences in climate and soils, cropping patterns, and historical dependencies on farm subsidies. For example, the number of acres planted to corn and soybeans has generally increased since passage of the FAIR Act, while the number of wheat acres declined. In addition, the fixed subsidy payments (which vary by region) were likely capitalized into cash rents and farmland values. Some landowners even went so far as to sever their business relationship with tenants and began contracting out different production activities in order to capture the subsidies themselves (Knutson, et al). The continuing shift to a greater market orientation in farm policy also exposed farmers and those who do business with farmers to a higher level of risk.

Implications for Bankers

What should commercial bank lenders be aware of, and how might they respond to the shift

in farm policy? *First, be aware that differential regional impacts may exist.* Additional oversight may be required for borrowers in an area where farmers have been relatively more dependent on government payments, or in an area that has few alternative cropping options due to soil or climate constraints. *In a more open market where farmers respond to prices rather than subsidies, one would expect these regions to be more inclined to voluntarily reduce production when farm commodity prices are low.* The potential spillover to farm-related businesses would leave farm-dependent rural communities more susceptible to widespread agricultural downturns. Some areas may be more likely to experience declining collateral values as well.

Second, lenders must pay more attention to the cash flows prepared by their borrowers. Look for changes from prior years, some of which may be subtle. Inspect cash flows for a shift in the historical cropping mix. Is there a new enterprise? If so, is the borrower experienced in this enterprise? Is different equipment or modifications to existing equipment required? Are local markets available? What are the implications, if any, for local farm-related businesses? Furthermore, the determination and timing of government payments is subject to change. How might this affect the cash flow?

Third, look ahead using multiple scenarios. Run a stress analysis of the borrower's cash flow. What effect will different production, price, and government payment scenarios have on the borrower's financial position a year from now? Furthermore, consider changes to the macroeconomic environment that may affect nonfarm income, interest rates, foreign exchange rates, and trade levels. Don't forget income and production shifts among major foreign customers and competitors. And finally, don't miss the opportunity to look back and compare the borrower's actual experience to the cash flow.

Trade-related Impacts

There are several reasons why bankers and examiners should concern themselves with agricultural trade developments, the first and foremost being that exports are extremely important to the well being of their farm borrowers. Over one-fifth of U.S. farm output is sold to foreign customers. The share is even higher for some individual commodities, such as wheat and soybeans. Consequently, export demand is an important swing factor in the overall demand for farm commodities and food products, and has a significant impact on the prices received by farmers. Furthermore, foreign market growth (in terms of population and income) is expected to far exceed domestic growth, and gains in this area are essential to offset the decline in federal farm support payments prescribed by the FAIR Act. (However, it must be noted that Congress provided additional support payments to farmers in both 1998 and 1999.)

When thinking about farm exports and their impact on agricultural banks, an important distinction to consider is bulk vs. higher-value products. Bulk items include traditional farm commodities such as corn, soybeans, and wheat (which account for over 75% of U.S. bulk commodity exports), while higher-value products include fruits, vegetables, and products that have undergone additional processing. These processed items range from intermediate products such as soybean oil to consumer-ready products such as snacks and sodas. Bulk exports tend to vary over time since the U.S. is a residual supplier of commodities to world markets. In other words, American farmers fill the gap when foreign production is not adequate to meet local demand or an existing supplier cannot meet local market needs. Trade agreements cannot "repeal" this cyclical aspect of bulk exports. In comparison, foreign sales of higher-value products registered steady gains for most of the 1990s and were the star performers of the decade.

In addition, there are several federal programs that support U.S. agricultural exports. In recent years, the most important has been the GSM Export Credit Guarantee Program, under which the U.S. government guarantees short-term commercial loans to finance foreign purchases of U.S. agricultural products. The FAIR Act modified the GSM program to increase its focus on higher-value and processed goods. Other programs include the Export Enhancement Program (little used in recent years), the Dairy Export Incentive Program, the Market Access Program, and the Foreign Market Development Program. These programs, as well as similar programs in other nations, will come under close scrutiny during the next round of international trade negotiations.

Implications

Bankers and examiners should be aware of the potential impact of agricultural exports on farm income and loan repayments; on asset and collateral values; and on the rate of structural change in agriculture. Producers of bulk commodities (such as corn, soybeans, and wheat) are already very dependent on export markets and their prices will continue to be affected by shifts in foreign demand and competitor supplies. Producers of red meat and poultry are less affected by foreign markets, but their dependence is growing. The overall tendency for U.S. agriculture is increasing reliance on export markets. Consequently, farm prices and income, loan repayments, and collateral values will continue to be affected by export developments. For example, a decline in agricultural exports would have an adverse impact on farmland values by reducing current prices and income, and would likely affect expectations of future prices and income. Expectations would have a further impact on asset and collateral values, net worth, and the spending patterns of farm families. Finally, a sustained decline in agricultural exports could also hasten the rate of structural change in the farm production sector as those on a financial bubble are forced to leave the industry.

Down on the Farm

Large vs. small producers

U.S. agriculture has been characterized for many years by a trend to fewer and larger farms, which may accelerate during times of financial stress. There are two implications that go along with this trend. *First, smaller farms may be less competitive and less viable than larger operations.* Larger firms tend to use higher quality management and may have access to resources that are unavailable to smaller operations. Larger operations are more inclined to adopt new technology that lowers unit production costs, and may have greater access to capital for financing purchases of new technology. In contrast, smaller farms are more likely to be part-time operations where one or more family members are employed off the farm. *Second, the trend to fewer farms suggests community banks face a dwindling pool of potential borrowers, and large farm operations may seek financing from larger banks or investors.*

Contract Production

Producing grain and livestock under some form of contract has become more common in recent years. Under a grain production contract, the grower may agree to use certain production techniques to raise a crop with attributes specified by the contractor. In comparison, one type of livestock contract involves an agreement under which a producer feeds and cares for livestock owned by a contractor in return for a specified payment. The contractor may provide the livestock, feed, veterinary services, and funding for buildings and other capital items.

The value of a farm loan at a commercial bank will be linked to the performance of the firm with which the farmer has formed an alliance. This could be a grain processor, meat packer, or a large grower. Evaluating the financial quality of the relationship is difficult since contractors are

often large and complex firms. Larger lenders able to employ a specialized staff to analyze such loans and related risk could easily have a competitive advantage over smaller lenders. Other loans to farm operations that do not use contracts may also be affected by a shift in the volatility and reliability of cash markets as an increasing share of production is transferred under contract rather than on open markets.

A "traditional" lending relationship exists when the lender provides funds to a farmer who holds title to the farm output and does not involve a third-party contractor. It is important that lenders have a firm grasp of the contract terms if they chose to depart from this traditional relationship and provide funds to farmers that produce under contract. In particular, they should note the impact of contracting on the legal relationship between the lender and producers, and on the variables affecting the future financial performance of the producer. *A short (but by no means complete) list of items for lenders to consider include legal ownership of the commodity and the impact on available collateral, contract compensation formulas, conditions under which the contract is breached or may be assigned, and any special clauses regarding delivery of the product and timing of payments.*

Production technology

Lenders must be familiar with their borrowers' production methods to evaluate the accuracy of projected cash flows and impact of new capital investments. Two technologies that have come on the scene in recent years are "precision agriculture" methods and seed containing genetically modified organisms (GMOs).

Precision agriculture makes use of global positioning system technology to reduce variable costs by better matching crop inputs to soil types and crop needs *within a given field*. It also holds the advantage of reducing the environmental impact from potential over-application of

fertilizer. Startup costs are often substantial and the advantage goes to those who can spread these costs over a large number of acres. In addition, a certain level of technical expertise is required to operate such a system. *Lenders should consider the credit risk associated with financing the purchase of such specialized equipment, evaluate the resale value of this equipment as collateral, and determine the appropriate term structure for financing.*

While the benefits of precision agriculture methods are seldom disputed, the use of GMO seed is in the midst of growing controversy. On the plus side, seeds and plants that are resistant to herbicides and insect damage allow farmers to reduce their use of chemicals and provide greater flexibility in pesticide application. On the minus side, the adverse response of consumers, or governmental actions that restrict production, distribution, or sale of GMO grain will reduce product demand. In addition, segregating GMO and conventional grain will increase costs among farmers, grain handlers, and processors, and raise the specter of discounted prices for GMO grain and oilseeds. *Consequently, lenders should consult with their customers and be aware of all special considerations and evaluate projected cash flows accordingly.*

Agricultural Risk Management

Farm operations face various types of business risks. These include yield/production risk, price or marketing risk, risk from legal or regulatory actions, succession risk, and technical change and obsolescence. This paper considers the first two types of risk (production and marketing), which bankers and farmers are most interested in when they sit down to discuss lending terms.

Risk management tools

Crop insurance is often used to manage grain production risk. In addition, various government programs provide protection against both price and production risk. Price risk may be managed through hedging or cash forward contracts. Nor is it uncommon to find special

contractual pricing arrangements in the livestock industry. But lenders should be aware of the primary difference between marketing and production contracts used in the livestock industry: the producer retains title to the farm products under a marketing contract.

The risk management tools listed above are not uniformly used throughout the production agriculture sector. Larger farm operations are more likely to utilize risk management tools. A much greater proportion of farmers use cash forward contracts to lock in prices than use futures and options contracts. Moreover, government programs seem to be the most popular risk management tool. Casual observation suggests that farmers simply favor those tools that are easiest to understand and/or require fewer actions or less monitoring on their part. Some observers believe that government programs inhibit the use of other risk management tools.

The passage of the FAIR Act in 1996 helped bring agricultural risk management to the forefront, since it was intended to reduce federal support. Acreage set-asides were done away with and producers were given the freedom to plant the crop of their choice. This would encourage relatively greater year-to-year changes in aggregate production than recently experienced and perhaps greater price volatility. The Act also did away with the Farmer-Owned Reserve, reducing government-controlled stocks that could be used to buffer price swings.

Formulating a Risk Management Strategy

A simple approach to developing a strategy for managing price and production risk involves the analysis of production and marketing plans. Production plans, yield projections, and pro forma cash flow statements are used by producers to develop breakeven unit costs for a given commodity. The producer should also develop one or more marketing plans that combine information on cash needs throughout the year, the timing and magnitude of sales, and different methods of locking in a selling price (e.g., selling futures contracts or forward contracting).

Expected prices are compared to breakeven costs to determine which plan yields the greatest return. It should also be pointed out there are additional learning benefits to running these [simulations], since they force the producer to think about his financial situation and adequacy of his marketing plans.

Implications for Lenders

Lenders should obtain current marketing and productions plans from their borrowers and review them closely. Production and price assumptions should be questioned and it would be useful to [stress-test] cash flows under extreme values for prices and yields. Lenders should be aware of the differences between various pricing alternatives such as hedging and forward contracting. Furthermore, lenders who finance margin accounts for borrowers that hedge should receive brokerage statements and secure the hedge account as collateral for the loan.

Risk management for lenders

On a related note, lenders can take actions themselves to reduce their credit risk and their concentration of credit risk. While credit risk is the risk of loan default, concentration of credit risk stems from holding a particularly large block of loans in a single industry, a common situation for many small agricultural banks in rural areas. Regarding credit risk, lenders should ask themselves whether production cost estimates are realistic; if the producer accurately accounts for family living and healthcare expenses; and the plausibility of price and yield assumptions. In addition, the credit file should contain documents that assess the financial situation of the borrower, and the lender should be aware of possible contingent liabilities.

With respect to concentration of credit, the lender can manage this risk by holding additional capital or loss reserves; sell farm real estate loans through Farmer Mac; or enter into loan participations with other banks. In addition, loan guarantees through the Farm Service Agency

(FSA) have been widely used, especially in recent months. A survey of agricultural banks in Iowa conducted by the Federal Reserve Bank of Chicago in late 1999 indicated that two thirds reported an increase in use of FSA guarantees relative to a year earlier. However, lenders must be certain they administer these guarantees according to FSA requirements or else they may prove invalid.

Competition in Farm Lending

The overall market for farm loans peaked at \$193.8 billion in 1984. Especially sharp gains occurred in the 1970s, driven by rapidly escalating farm real estate values. Loan volume began to contract during the 1980s farm crisis as interest rates rose, farm exports declined, and real net income to the farm sector reached lows not seen since the Great Depression. Outstanding farm loan volume among all lenders dropped to a cyclical low of \$138.1 billion in 1990, but then registered annual gains for most of the decade before leveling off in 1998. Traditionally, the major players in farm loan markets have been commercial banks, the Farm Credit System (FCS), life insurance companies, individuals and others, and the Farm Service Agency.

Commercial banks. Commercial banks are currently largest providers of farm loans and hold a market share of approximately 40%. Banks are involved in all types of farm lending--operating funds, equipment purchases, and real estate. The emphasis on agricultural lending varies widely among banks, and consequently, the share of banks' loan portfolios devoted to agricultural loans varies widely across banks and regions.

Farm Credit System. The FCS is organized under a cooperative structure and is composed of a number of intermediaries that lend funds to agriculture and operate in specific geographic regions. It has undergone a significant degree of consolidation since its financial problems peaked during the farm crisis of the 1980s. The FCS is essentially restricted to financing farm operations (except for the Bank for Cooperatives, which finances cooperatives), but can lend to farm-related

businesses and for rural homes under limited conditions. Many commercial bank lenders consider the FCS their primary competitor in farm loan markets and many recall the late 1970s and early 1980s when the FCS was the dominant farm lender. The FCS rode the 1970s agricultural boom, the increase in farmland values, and its average cost pricing policy (which kept its loan rates lower than commercial banks during times of rising interest rates) to a peak market share of nearly 35% in 1983. However, large loan losses, an increase in funding costs, and a shift to marginal cost pricing pushed FCS loan rates up sharply in the early 1980s, and many borrowers fled to commercial banks. The FCS has modestly expanded its market share in recent years and currently accounts for about 25% of the market.

Individuals and others. This category accounts for a slightly smaller share of total farm loans than the FCS. In the past it mostly represented seller financing of farm real estate (and at one time was the dominant source of credit to agriculture). The individuals and other's share of overall farm lending has been on the rise this decade, most likely from the activities of captive finance companies. Often, a farm-related non-financial firm (such as a seed corn or agricultural equipment company) owns a captive finance unit that provides credit to farmers. Some captives have extended their reach beyond financing the products of their parents, and are increasingly viewed by commercial banks and the FCS as major competitors. Besides being subject to less regulation than commercial banks, the competitive advantages of these captive finance units include contact with producers through dealer networks, a national distribution network that leads to a geographically diversified portfolio, and a willingness to adopt new technology for targeting and underwriting new loans. However, they may have limited knowledge of the people they finance and their credit risk could be increased if lending policy is designed to support company sales objectives.

Farm Service Agency. Another important agricultural lender is the Farm Service Agency within U.S. Department of Agriculture. The FSA provides loans to farmers who are not able to obtain funding from commercial sources. In recent years the agency reduced its emphasis on direct lending and focused on providing loan guarantees to encourage private sector financing of this group of farmers. FSA loan guarantees have become much more popular in recent months due to the agricultural downturn, with many bank lenders reporting an increase in use. In this vein, the FSA is not so much a competitor of other lenders but rather a provider of credit enhancements. The FSA experienced a surge of lending activity during the farm crisis years of the 1980s with its share of the market peaking at 16%. Currently, its market share is near 5%.

Life insurance companies. Life insurance companies typically focus on larger, high-quality farm mortgage loans. Their combined share of the market has been relatively stable since the early 1980s at about 6%.

Implications for commercial banks

Captive finance companies may well continue to increase their share of nonreal estate farm lending. Small banks and those located in areas where there is a concentration of crop producers are the most vulnerable to competition from the captives, as it may be difficult for banks to match their pricing or their speed. In addition, banks should watch this group closely since the current downturn in agriculture is the first this group has experienced since expanding their farm lending activities. It will be interesting to see if the downturn affects their ability and desire to increase farm lending in the future. In addition, the FCS will continue to be an important and aggressive competitor in the future, especially for high-quality borrowers. Banks' planning assumptions about the growth of farm loan volume, loan quality, and net interest margins should take into account potentially increasing local competition from the FCS as well as captive finance

companies.

Non-deposit Bank Funding

Though not specifically a farm-related issue, it is worthwhile to mention the increased importance of non-deposit funding to agricultural banks in recent years. Despite accounting for only 1-2% of total bank funding, access to nondeposit funds improves the ability of banks to handle new loan requests despite an increase in loan-to-deposit ratios and the potential to hit liquidity constraints. For example, the survey of agricultural banks conducted by the Federal Reserve Bank of Chicago indicates that the average loan-to-deposit ratio for this group increased from a cyclical low of about 50% in the mid-1980s to over 70% in the late 1990s. The rise is attributed mostly to sluggish deposit growth, which failed to keep pace with the overall growth in lending. But about half the survey respondents indicated that slow deposit growth is not a problem in servicing acceptable loan requests, and many reported increased reliance on nondeposit funding sources to bridge the gap. These sources included Federal Home Loan Banks, the Federal Reserve's discount window and seasonal borrowing program, Farmer Mac, state-sponsored agricultural loan programs, brokered deposits, correspondent banks, Fannie Mae, and even a farm credit bank.

In particular, the importance of the Federal Home Loan Bank (FHLB) as a source of funds appears to be on the rise. The FHLB is a cooperative government-sponsored entity that provides loans (advances) to member institutions. Commercial banks were allowed to join the FHLB system in 1989. Membership is contingent upon a bank holding at least 10% of its assets as mortgage loans. FHLB advances to banks have increased rapidly in recent years, largely at the expense of borrowing from the Federal Reserve. The share of agricultural banks holding membership is somewhat smaller than for all banks, but a recent rule change will encourage more

agricultural banks to join by allowing a larger number of farm real estate loans to be counted in meeting the mortgage requirement.

Farmer Mac is another government-sponsored entity, created to purchase farm real estate loans and provide liquidity to commercial banks. At the time of its creation, bankers expected Farmer Mac to increase their ability to compete with the FCS in farm real estate lending. However, the demand for its services has not met initial expectations. Commercial banks can sell qualifying farm real estate loans to Farmer Mac without recourse, and can also sell the guaranteed portion of farm loans that are backed by the Farm Service Agency.

Concerns for Ag Banks

Commercial banks should be aware that deposit growth is affected by changing consumer preferences for investment products as well as local economic and population trends. Slow deposit gains, combined with bank reliance on deposits for funding, could reduce future asset growth and damage profitability because of increased costs stemming from higher deposit rates or greater use of nondeposit funding. In addition, liquidity and asset/liability management takes on increased importance for banks with rising loan-to-deposit ratios. Some suggested strategies for commercial banks include investing in new technology and software to better manage assets and liabilities as well as providing more education for employees. In addition, banks could shift their portfolios towards more liquid assets, and give more attention to securing backup funding sources.

Finally, FHLB advances are a relatively new tool for many banks. The reliability of this source is a concern given the current agricultural downturn and the potential impact on bank financial performance, because the FHLB can require early payment if a bank's financial condition shows significant deterioration. In addition, the FHLB often executes a blanket lien on available

collateral, which could affect the bank's ability to obtain other sources of funding. Regarding the Farmer Mac, its relatively large pre-payment penalties could hinder the financial restructuring of some borrowers during times of financial stress.

Summary

This paper provides an overview of several important issues currently affecting agriculture and the potential implications for commercial bank lenders. In particular, lenders are encouraged to be aware of the potential impact that changes in farm programs, trade developments, and contract production have on the cash flows of their farm borrowers. Furthermore, a potential shift to a two-tier price system for genetically modified grain and conventional grain would also affect the cash flows generated by farmers. Changes that affect the sector as a whole will likely have an impact on asset prices and collateral values as well. Finally, lenders should also be aware of broader trends, such as structural change and the availability and use of new technologies. The ability to manage price and production risk becomes even more important in light of current developments, and bankers are well positioned to work with their farm borrowers to prepare for an uncertain future.

References

Federal Reserve Bank of Chicago, Federal Reserve Bank of Kansas City, Federal Reserve Bank of Minneapolis, Federal Reserve Board of Governors, *Ag Trends: Implications for Banking Supervision*, Internal Paper, May 21, 1999.

Knutson, Ronald, J.B. Penn, and B.L. Flinchbaugh, *Agricultural and Food Policy*, Upper Saddle River, NJ: Prentice Hall, 1998.

Federal Reserve Bank of Chicago, *AgLetter*, various issues.