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Changing Face of Agricultural Lending

David M. Kohl and John B. Penson, Jr.

The structure and conduct of agricultural lending has been changing rather dramatically over the past two decades. However, it took the attempted sale of a large Midwestern agricultural credit association in the Farm Credit System to a foreign bank to refocus attention on the implications of these changes.

Some of the forces causing change have been occurring at the farm level, where farmers and ranchers are changing the way they do business. Other changes have been occurring in global markets for agricultural and value added food and fiber products. Rapidly changing dynamics are occurring in technology embodied in inputs and management of resources and the environment. Finally, evolution is occurring in the credit market serving agriculture and the regulations that govern institutional behavior.

In this issue of *Choices*, we examine a broad range of issues changing the face of agricultural lending. The agricultural lending decision making process is becoming much more complex as a result of contractual and ownership arrangement issues, locational issues, and management quality and risk management issues. The Farm Credit System, with its unique structure, faces a number of issues as it attempts to maintain its competitive position in light of the evolving farm customer base and activities of competitors providing loans and services in this market. The degree of competition in agricultural lending will influence quantity and quality of loans made.

Particular attention in this theme is placed on examining the recent attempted purchase of Farm Credit Services of America headquartered in Omaha, Nebraska by Rabobank, an international financial services lender headquartered in the Netherlands. Already active in other regions of the United States, Rabobank offered $750 million to purchase this component of the Farm Credit Service last summer. Although this deal ultimately was called off, it raises a number of policy and structural issues that will be debated in the coming months.

Articles in this Theme:

The Basel II Capital Accords, scheduled to be implemented by the end of 2006, has implications for setting capital requirements, supervisory review, and market discipline at banking institutions. The measurement and management of credit risk, operational risk, and market risk lie at the heart of Basel II. While implementation will begin at the nation's largest banks, the more advanced approaches to calculating capital requirements and other management practices will have implications for other banks and nonbank lending institutions as well.

With the many forces changing the face of agricultural lending, this is a good time to examine shifting paradigms impacting agricultural lending as it evolves over the next 15 years from both the customer side of the market as well as from the lender perspective. Other contributors to this theme include Danny Klinefelter, Neil Harl, Michael Boehlje, Allan Gray, Robert Jolly, Josh Roe, Maureen Kilkenny, Roger Ginder, Ani Katchova, Peter Barry, and Alicia Morris. Any remaining omissions or errors are the sole responsibility of the contributors and editors.

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Growing Complexity of Agricultural Lending Decisions

Danny A. Klinefelter and John B. Penson, Jr.

The face of agricultural lending has changed dramatically over the last several decades from both a demand and supply perspective. Farm numbers are down, but size is up. The distribution of farms is increasingly bimodal; 2% of farms today produce over one half of total sales. Large-sized operations are capital intensive, utilizing the latest technologies embodied in variable and fixed inputs to expand productivity and lower costs. The use of debt capital in agriculture has reached an all-time high. Total farm debt outstanding today is up almost 50% from 1990 and now exceeds the peak debt outstanding before the farm financial crisis in the mid-1980s. These borrowers are increasingly sophisticated in their marketing strategies, alliances, and use of available information technology.

There has also been considerable change in the lenders providing loans to farmers. The Farm Credit System (FCS), which accounts for 38% of real estate farm debt and 22% of non-real estate farm debt, has transformed itself from 12 farm credit districts down to just four Farm Credit Banks (FCBs) and CoBank, which serves cooperatives nationwide in addition to its affiliation with major agricultural credit associations (ACAs) on both coasts. The recent failed attempt by the Dutch banking conglomerate Rabobank International to purchase one of the larger ACAs in the FCS raised a number of policy issues addressed by other papers in this theme. Commercial banks, the largest commercial lender to farmers, account for 33% of real estate farm debt and 49% of non-real estate farm debt outstanding. The credit delivery system at both lenders has changed considerably in recent years, with credit scoring and information technology playing a major role in credit decisions and resulting in efficiency gains in terms of decision turnaround and cost of operations. Other lenders to farmers and ranchers are undergoing change as well.

This paper focuses on the drivers of change at the farm level and emerging credit analysis issues. The remaining papers in this theme provide background on and discuss the implications of the attempted Rabobank purchase of an ACA, the implications that the Basel II Accords have for lending and portfolio decisions by agricultural lenders, and a look at where agricultural lending may be headed over the next several decades.

Drivers of Change at the Farm Level

There are a number of forces that will drive further change in agricultural lending in the next few years. These drivers in turn will influence credit analyses and portfolio management decisions at agricultural lending institutions.

For starters, the next farm bill will likely see several changes that will affect agricultural lending. This includes the potential de-emphasis on commodity safety nets (loan deficiency payments and countercyclical payments) as well as direct payments and increased emphasis on revenue insurance for a broad range of crop and livestock commodities. Continued programs may involve payment limitations and needs testing. Other policy-related drivers include issues related to water rights, zoning, and other regulations dealing with odor, dust, chemicals, and noise in agricultural production. Finally, macroeconomic policies affecting the general economic health of the domestic and global economies will also affect farm profit margins and debt repayment capacity.

Environmental, food safety, and bioterrorism concerns will also drive changes in production at the farm level. Regulations governing input use such as fertilizer and chemicals can affect both yields and the cost of production. Traceability in production processes and other Environmental Protection Agency (EPA), Federal Drug Administration (FDA), and Homeland Security regulations can also affect the cost of production but could have

positive effects on demand if these regulations give consumers greater confidence in finished goods.

International competition and globalization will affect trade flows and market shares for agricultural products and hence affect the prices received by farmers. Supply and demand conditions in China alone can have a substantial impact in the global marketplace. Brazil may also surpass the United States in terms of production of major commodities in the foreseeable future. These trends were happening before NAFTA and recent WTO rulings. The ultimate impact on US farmers will depend upon the relative efficiency and comparative advantage of competitor nations, including the United States. Although commodity prices may be global, production costs are local. Avocado production in Mexico, for example, requires no irrigation, whereas irrigated water represents California avocado growers' single largest input cost. This makes Mexico growers extremely competitive with California growers. Absent of quality differences between Mexican and Californian avocados, one would expect declining prices for avocados in US markets as Mexican growers gain broader access to markets in the United States. The general competitiveness of US farmers in global markets will also depend on exchange rates, trade agreements, and the agricultural policies of competitor nations.

Farm involvement in integrated supply chains will also influence the stability and profitability of farm borrowers. By enhancing the predictability of quality and supply to institutional buyers, these relationships ensure a market, and hence the stability of sales by farmers. Alliances, joint ventures in input use and production, and new forms of business relationships will also lead to changes at the farm level.

Finally, other potential drivers of change at the farm level include the cost and availability of water, the cost and availability of capital, the Internet and the availability of decision tools online, biotechnology and its affects on the cost and productivity of crop and livestock production, and farm operations producing nontraditional differentiated products such as specialty grains.

Lenders will need the expertise to understand these drivers of change. Forming expectations of future debt repayment capacity requires lenders to understand the business relationships and environment in which their borrowers make decisions.

Emerging Credit Analysis Issues

As farms become larger and more complex, a number of issues are beginning to arise that will challenge traditional agricultural lenders. The measurement and assessment of risk evolving from the Basel II Capital Accords described in the paper by Katchova and Barry (in this issue) implies the need for using more sophisticated probability-of-default analysis tools for large exposures. Furthermore, the growing complexity of loan approval and portfolio management means the skills and knowledge lenders need to possess is going to change significantly. The remainder of this article identifies some of more significant issues we see emerging in credit analysis.

Alliances, contractual relationships, joint ventures, and interlocking ownership arrangements are becoming increasingly common as the food and fiber system moves toward coordinated supply chains. The analysis process will have to consider the terms and conditions of these arrangements and how risks are shared between the parties involved. Sorting out how costs and returns are allocated and accounted for will also present a challenge. These arrangements will also raise questions concerning ownership interests, liability, and the methods of legal recourse underpinning them.

Multiple entities, multiple owners, and the various interlocking ownership and contractual arrangements will also magnify the importance of relationship risks. In addition to the previously mentioned financial and legal aspects, equally important are issues related to the commitment to the arrangement by the parties involved, compatibility and complementarities of management styles and philosophies, in addition to potentially different goals and objectives. Relationship risks are also not limited to interfirm arrangements. The interpersonal relationships within the closely held multiple-owner businesses are just as significant. Family business specialists frequently refer to preparing for the four D's: death, disability, divorce, and departure. The attributes of and need for buy-sell agreements between the parties, including their spouses, to address how different events will be handled will be an increasingly important factor in assessing business continuity and viability.

Many of the multiple entity relationships will be between agriculturally oriented businesses and businesses for which agriculture is only a minor part of their business portfolio. Many current agricultural lenders do not have the training or experience to assess the credit risks associated with these firms' nonagricultural business activities.

Evaluating the creditworthiness and business performance of hori-

zontally and vertically integrated firms will be far more challenging than traditional agricultural lending. The diverse and unique combinations of assets found in these firms are going to involve unique credit underwriting standards.

Although technical knowledge of farm operations has been a prerequisite for success of lenders in the past, the successful loan officer of the future will need to evaluate the economic value of alliances, information sources, and coordination methods.

Historically, farmers have operated in a limited geographic area, which allowed lenders to not only become familiar with the production practices, but also to have the ability to physically monitor performance and conditions. But that is changing rapidly. Geographic diversification is no longer limited to farming in different counties. Many farm operations are now spread over several states, and some are even multinational in scope. A significant number of US farmers are already operating in Argentina, Brazil, and Mexico. Not only are the production and market risks different, but the issues of coordination and control, as well as different economic, political, and legal risks, will also need to be considered.

Since the mid-1980s, agricultural lenders have placed much greater emphasis on cash flows and profitability; however, most farm loans are still asset-based transactions. One of the major changes occurring in agriculture that will challenge traditional lenders is the shift from hard to soft assets as the underlying strength in the borrower's business. In addition to the human resources of the business (which we will focus on next), contracts, brands, patents, leases, alliances, buy-sell agreements, and franchise arrangements are important to the overall performance and viability of the business. These "soft assets" will represent challenges from the standpoint of both risk assessment and business valuation.

The implications of this trend will be profound for agricultural lenders. First, the financial performance of farm operations will become increasingly dependent on management and returns to management, rather than the ownership of and returns on assets. Management will entail not only operations and marketing skills internal to the firm, but also successful negotiation of linkages with suppliers and processors or distributors and having the proper external partners.

The human/management factor has always been recognized as a key to the success of any business or lending relationship. But the assessment has largely been subjective or based on measures associated with past performance. In the future, the primary basis for a business being able to maintain a sustainable competitive advantage will be management's ability to learn and adapt faster than its competition. Assessing management's ability and willingness to innovate and adapt, as well as whether the business is structured in a way as to permit sufficient flexibility, will be a major challenge. This is particularly true because managers go through lifecycles in which their attitude toward adapting to change and taking on new risks tends to change over time. A key element here will be assessing the breadth and depth of the management team, how decisions are made, and whether there is a clear succession plan and basis for successor selection. Another emerging issue that will complicate management assessment is the trend toward outsourcing and pooling of specific management services and decisions. In these situations, the evaluation of management quality will not be limited to the business's internal capacity.

The increasing emphasis on risk management by lenders, regulators, and business owners is also spurring the development of new risk management products and strategies. Some are and will be insurance products; others will be various forms of derivatives. New futures and options markets and different forms of risk-mitigating contractual arrangements are appearing or being proposed in almost every market. Unfortunately, most risk management tools can increase risk as much as they can reduce it, if the tools are misunderstood or not used properly. There will also be issues related to how these tools and markets are underwritten and regulated. The ability to assess and become knowledgeable about these emerging developments will challenge both farmers and their lenders.

Historically, most agricultural products have been sold in open commodity markets. Much of the remainder has been produced under some form of production or marketing contract. Developments in biotechnology are just beginning to create what will eventually become significant markets in specific attribute raw materials for both consumer and industrial products. While homogeneous commodity inventories represent a fairly definable level of inventory risk, these new products will add a new dimension in terms of potential attribute quality deterioration and technical obsolescence. Just as clothing fashions, computer hardware, and pharmaceutical products can experience rapid devaluation in light of the development of new sub-

stitutes, the same will be true for these agricultural inventories.

Most lenders recognize the importance of evaluating trends and cycles when analyzing agricultural loans. The increasing emphasis on value-added business activities and niche marketing is going to require even greater emphasis on the need to evaluate market entry and exit strategies. This will be true for both lenders and borrowers. Historically, most analysis has focused on trends as if they were linear. The acceleration in the speed of information transfer, globalization, and changes in consumer tastes and preferences and technological developments have resulted in some trends becoming exponential. Timing has always been important, but the early identification of tipping points, in terms of both getting into or out of a market, is becoming critical. The need for closer monitoring and recognizing that much of the impetus for change will come from outside the business will be increasingly important in the analysis process, the design of information systems, and the identification of leading indicators.

Related to the previous point is the ability of lenders to evaluate strategic risks when assessing both individual loans and portfolio risk. The importance of environmental scanning is going to become more important. Although significant changes and events can be envisioned, their probability of occurrence is often extremely low and frequently will be the result of events or developments outside the borrower's industry. The scope of the scanning process, the understanding of interrelationships, and the identification of leading indicators in markets largely unfamiliar to traditional agricultural lenders will present new challenges.

Most agricultural lenders are knowledgeable about the details of the various farm programs and the rules and regulations associated with environmental programs. However, as a result of increasing concerns and regulations associated with bioterrorism, food safety, and developments in biotechnology, compliance with Homeland Security Administration and FDA regulations may be associated with greater liabilities than traditional farm programs. These programs not only will present the need to be knowledgeable about a wider range of regulations, but monitoring compliance may often be more difficult and more costly.

Summary and Theme Overview

There have been major changes to the face of agricultural lending over the past several decades. Many of the forces driving these changes have occurred at the farm level. Lenders have adapted to these changes in addition to changes in technology that permit greater efficiency in their operations. Lenders will have to continue to adapt to the increasingly complex and uncertain environment in which their clientele operate. In short, the future promises continued change to the face of agricultural lending.

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History and Unique Features of the Farm Credit System

Neil E. Harl

The proposed buyout of Farm Credit Services of America (FCSA) by Rabobank in late July 2004, and the subsequent rejection of the offer by the FCSA board in late October 2004, focused attention on the uniqueness of the Farm Credit System as a national cooperative lender to agriculture, on congressional expectations for the system (inasmuch as the system was created by successive congressional acts), and on the very unusual tax status of the Farm Credit System, especially the Federal Land Bank segment. The proposed Rabobank buyout posed the policy question of whether a buyout of a component of the Farm Credit System was inconsistent with the statutory and regulatory framework of the system.

The matter of expectations of the stockholders of the buyout target was also highly relevant but the proposed buyout did not progress to the point of assessing stockholder positions on the matter.

History of the Farm Credit System

Early History

By 1912, politicians found it universally popular to promise that strong measures to deal with the farm credit problem would be taken by government. In that year, all three political parties (Republican, Democratic, and Progressive) adopted platform planks calling for strong rural credit legislation. As early as 1908, President Theodore Roosevelt's Country Life Commission had recommended a cooperative credit system that would provide agricultural credit to farmers and ranchers on fair terms.

Compromises or reconciliation of such polarized concepts—the one system private, the other public—proved difficult. Congress tied both plans together and adopted them into a single enactment as the Farm Loan Act of 1916.

Thus, the Land Banks and their affiliated associations came into being in 1916, because farmers had an urgent need for more and better long-term mortgage financing. Money was scarce in most rural areas, and when lenders could be found, costs usually were high. Every few years, mortgages had to be renewed or refinanced. There was the ever-present danger that renewals or a new lender would not be available.

After the wartime prosperity of 1918–1920, American agriculture fell into a deep depression, and the Federal land program and its private counterpart, the joint stock land banks, were unable to provide the needed credit.

In the early 1920s, the War Finance Corporation endeavored to establish a program for short-term agricultural credit. Congress, responding to the nation's depressed rural economy, enacted the Agricultural Credit Act of 1923, which established the Federal Intermediate Credit Banks to finance and discount the paper of agricultural credit organizations, commercial banks, savings institutions, and cooperatives, in order to channel funds to individual farmers for their operating needs.

The Great Depression

The nationwide depression that deepened in 1929 and continued into the 1930s accelerated the problems of rural America. Upon assuming office, President Roosevelt acted quickly to establish a means to revive financially the farm economy. By Executive Order, the President created the Farm Credit Administration, thereby concentrating the supervision and authority over the foundering rural assistance programs.

Thereafter, Congress enacted the Farm Credit Act of 1933, establishing a system of production credit corporations and associations, with financing from the Federal Intermediate Credit Banks, to provide operating loans to farmers on a short-term credit basis. That legislation also

brought into the Farm Credit Administration the banks for cooperatives. In the same year, the Emergency Farm Mortgage Act provided for refunding and revising the operations of the Federal Land Bank associations to meet the problems of farm foreclosures and debt defaults.

In the late 1960s, it became increasingly apparent that the system, which was based on several underlying statutes, should be recodified, updated, and made ready for the years ahead.

In 1985, in the midst of a deepening farm debt crisis characterized by low commodity prices, high farm debt-to-asset ratios, and steeply falling land values, the Farm Credit System banks held some $6 billion in loans in which the face amount exceeded the value of the collateral. Increasing amounts of nonaccrual and other high-risk loans ($10 billion in September 1985), record losses, and increasing acquisition of property through foreclosure or liquidation severely strained the resources of the system, with individual banks and associations in danger of collapse. In response to the growing crisis, Congress passed the Farm Credit Act Amendments of 1985 which (a) reorganized the central administration of the system to make the Farm Credit Administration a more independent, arm's-length regulator of the System; (b) increased the FCA's enforcement powers; and (c) created the Farm Credit System Capital Corporation to assist the system as a ready source of financial assistance. Although the act did not appropriate additional funds for the FCA, it did provide the Department of the Treasury with discretionary authority to provide financial assistance after certification of need from the FCA.

The Agricultural Credit Act of 1987 provided for reorganization of the Farm Credit System in terms of powers and capitalization. Federal Land Banks and Federal Intermediate Credit Banks within each district were merged.

Under the Agricultural Credit Act of 1987, on consolidated or system-wide obligations, each bank was responsible for obligations issued on its own behalf and jointly and severally liable on other obligations as called upon by the Farm Credit Administration. After five years, the FCSIC fund was to be exhausted before a bank was asked to be liable for other banks' obligations.

The Agricultural Credit Act of 1987 created an FDIC-type fund for the Farm Credit System. The new fund was designated the Farm Credit System Insurance Corporation (FCSIC). The 1987 legislation also created the Farm Credit System Financial Assistance Corporation (FCSFAC) to provide capital to FCS institutions experiencing financial difficulty.

The Exit Fee

The payment of the exit fee in the proposed Rabobank buyout in 2004 was of importance because (a) much of the capital involved, which was held as unallocated earnings, would flow out of FCSA and, in large measure, outside the four-state area to benefit other FCS borrowers in other states; (b) payment of the fee would diminish the amount to which stockholders would be entitled; and (c) the expected income tax consequences meant that the US government and the respective states would be major beneficiaries of the payment of the exit fee.

Payment of the exit fee, estimated to total nearly $900,000,000, was to be paid by FCSAmerica out of unallocated surplus—not by Rabobank.

The exit fee is based on the average daily balances of assets and liabilities for the 12-month period preceding the termination date with adjustments. To calculate the fee, assets are multiplied by 6%, and that amount is subtracted from total capital. Thus, the exit fee is all capital above 6% of assets.

The exit fee is paid to the Farm Credit System Insurance Fund. The exit fee could have been avoided if a buyout or merger were to occur with another Farm Credit System unit with the full amount of the fee retained within the system.

Income Tax Implications

The income tax implications are important because of the impact on the purchase price (the greater the negative income tax consequences, the lower the purchase price) and the potential effect on the amount available for distribution to stockholders.

History of Exemptions from Income Tax

Income earned by the Federal Land Banks (FLB) and the Federal Land Bank Associations (FLBA) is exempt from federal, state, municipal, and local taxation. The exempt status was provided for in the original act creating the Federal Land Banks in 1916 (the Federal Farm Loan Act) and has been continued in subsequent legislation.

Bonds, debentures, and other obligations issued by Federal Land Banks are exempt from all taxes other than federal income tax. This makes Federal Land Bank bonds more attractive to the investing public. The exemption benefits security holders and also allows securities to be priced more favorably.

Effect of the Agricultural Credit Act of 1987 on FLB

The FLB and FLBA exemptions were called into question by the IRS following the enactment of authority in the Agricultural Credit Act of 1987, allowing the merger of Federal Land Banks into an Agricultural Credit Association (ACA). The Internal Revenue Service ruled on three occasions that Agricultural Credit Associations (created upon the merger of Federal Land Banks and Production Credit Associations under the Agricultural Credit Act of 1987) were not exempt from income tax from long-term lending activities previously carried on by a predecessor Federal Land Bank or Federal Land Bank Association.

FCSA is listed as an Agricultural Credit Association. However, a federal district court in Fargo, North Dakota held that the Federal Land Bank exemption from income tax could continue after 1987. In that case, an ACA was formed by the merger of an exempt FLBA (offering long-term land loans) and a nonexempt Production Credit Association (PCA) offering short- and intermediate-term loans. The income from the ACA's long-term land loans was held to be exempt. The court said that to conclude that Congress intended to deny the continuance of the exemption would be "illogical and absurd." The court said that no specific language was needed for the long-term land loan income exemption because it already existed and was incorporated by reference. Thus, FCSA has continued to enjoy an exemption of income from long-term land lending.

Taxation of Other Units of FCSA

The production credit lending of FCSA has continued to be subject to cooperative taxation rules.

The special tax status of cooperatives involves patronage refunds whereby a percentage of the patronage earnings (80%) is retained by the cooperative, with 20% of the earnings paid out to the member as patronage. The income tax on the entire amount is paid by the patron. For earnings not classified as patronage, the cooperative (other than those earning exempt income) pays income tax on the earnings at the corporate rate.

Treatment of the Exit Fee

The proposed buyout of FCSA by Rabobank also raised a question about the income tax consequences of payment by FCSA of the exit fee that was expected to total nearly $900,000,000. Inasmuch as earnings from the Federal Land Bank (and Federal Land Bank Associations) are exempt from income taxes, payment of the exit fee out of tax-exempt funds raises a question of whether the payment would subject tax-exempt earnings used to pay the fee to federal (and state) income tax. That is the case under well-established tax principles.

Because of a 1992 US Supreme Court case, which held that fees and costs associated with a merger or acquisition were not deductible but had to be amortized over a lengthy time period, there would have been no offsetting deduction.

Taxation of Other Exempt Earnings

It was also unclear how the remaining tax-exempt earnings in FCSA would be taxed and to whom (FCSA or Rabobank) upon completion of the transaction or at a later time.

The United States Supreme Court has long held the view that when a new corporation succeeds to the rights and powers of an old corporation, the new corporation is not entitled to the old corporation's special statutory exemptions, including exemptions from taxation, in the absence of an express provision in a statute.

Therefore, it appeared that Rabobank would not have succeeded to the tax-exempt status enjoyed by FCSA for long-term land loans. Thus, the remaining tax-exempt earnings would have been subjected to tax, probably upon takeover.

No Guidance Requested from IRS

Apparently, a private letter ruling had not been requested from the Internal Revenue Service on the exit fee issue, the issue of tax reporting by stockholders of the purchase price (which was payment for the interest of the stockholders in FCSAmerica), and the issue of taxation of the remaining tax-exempt earnings inside FCSA.

Policy Implications

The question still remains (and will persist until the Congress revisits the issue) of whether it was the intent of Congress from 1916 to the present to allow a buyout of part or all of the Farm Credit System by a private-sector lender. This is an important policy issue that deserves a full-dress debate in Congress with an opportunity for all points of view to be heard. If that is not done, the stage will be set for another buyout proposal at some future time, which will likely proceed under the assumption that inaction by Congress indicates acquiescence in the idea of a private-sector buyout. The public interest in this issue goes well beyond the public resources that have been invested in the system over nearly 90 years.

At a minimum, if Congress decides to allow private sector buyouts, a clear legislative roadmap should be enacted showing the

income tax consequences, when those consequences are triggered, and who bears liability for the tax.

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Restructuring of the Ag Lending Markets: The FCS Dilemma

Michael Boehlje and Allan Gray

The recent initiative by Rabobank to expand their business in agricultural production lending in the United States through the acquisition of Farm Credit Services of America surfaced considerable debate about the appropriateness and desirability of that acquisition. But in reality, the question is much more fundamental: Given the dramatic restructuring of the agricultural capital markets with respect to both the changing customer base and the changing competitors, how can the cooperative Farm Credit System (FCS) maintain its competitive position?

The Changing Customer Base

Farm and agribusiness firms are becoming increasingly complex in their size, structure, organization, and interdependent relationships. The financing needs and uses of funds by these more complex agribusinesses are challenging traditional lenders to consider new lending policies and procedures.

For example, many farms operate farming businesses not only in different counties than their home base, but even in different states or different countries. This broader geographic domain challenges the delivery system of a funding organization that does not match that domain. Likewise, more farmers are entering value-added businesses and new ventures beyond the farm gate. Some of these new ventures include such business arrangements as value-added production systems in the livestock industry, ethanol and biodiesel plants, and other downstream activity. Farmers are also acquiring assets in the input supply sector of the agricultural industry and even in nonagricultural sectors. This increased scope of business activity by farmers challenges a lender who has limited capacity to offer financial products and services in other industries. Farmers are also increasing their financial product/service demands, including cash management services, asset management services, risk management services, payroll services, and so forth; a lender must offer a broader product/service bundle to serve this increasingly demanding customer base.

An additional change in the agricultural credit market is how farmers may access their lender. Increasingly, food companies and processors are developing qualified supplier or franchise grower arrangements with a limited number of preferred producers. These processors are serving as value chain coordinators and in many cases are facilitating their franchise growers' acquisition of price discounts and preferred customer relationships in the feed, chemical, and equipment businesses. It is not illogical that similar arrangements would be developed with credit or financial providers. Thus, a value chain coordinator may facilitate access on the part of their franchise growers to a national or global lender who can provide the broader set of products and services their growers need. In essence, the traditional lenders to agriculture—commercial banks and the Farm Credit System—may need to compete and collaborate with value chain integrators to provide total systems solutions including inputs, product merchandising, risk management, and financial products and services to growers participating in vertically aligned value chains.

In essence, the farm customer base is changing profoundly in terms of the traditional domain and boundaries with respect to geography, line of business, product/service needs, business model, asset control, and utilization and buying behavior.

The Changing Competitor Landscape

The US agricultural credit market has been dominated in the past by domestic commercial banks and the Cooperative Farm Credit System, but that dominance is increasingly being challenged in a number of important dimensions. The recent entry of Rabobank into the US farm production lending market has resulted in a global ag

lender that is one of the highest credit-rated banks in the world challenging US-based agricultural lenders. Agriculture has suddenly become a sector attracting global and international bankers and is no longer the exclusive domain of US-based lending institutions.

Noninstitutional lenders are also important to the farm sector, accounting for almost 25% of the non-real estate and real estate credit in agriculture (Ryan & Koenig, 1999). Captive finance companies, in particular, have become much more permanent in recent years with loan volumes growing rapidly; it is estimated that manufacturers and dealers now have a 25% market share of the intermediate-term non-real estate debt market for commercial farmers (Dodson, 1997). The recent expansion of captive finance companies appears to be driven more by perceived profit opportunities in finance rather than marketing strategies to sell excess inventories, suggesting that these companies are more likely to be permanent participants in the market than in the past.

Financial leasing arrangements are also growing rapidly—estimates are that one fifth of commercial crop farmers lease machinery and equipment (Dodson, 1997). In the machinery, equipment, and facility market in particular, leasing companies affiliated with manufacturers (as well as independent leasing companies) are expanding volume at double-digit rates. The unique financing that captive financing and leasing companies emphasize—along with relatively efficient origination, servicing, and collection procedures—frequently enables them to provide credit services at an equal or lower cost and with more convenience than traditional institutional lenders.

The FCS Challenges

The aforementioned changes in the customer base and competitors present challenges to lenders who can not or do not respond in maintaining their market position and presence. It is essential for any lender to anticipate and respond to changing customer needs and expectations, to offer products and services that are preferred in pricing, service, and other features to that of the expanded offerings of their competitors, and to deliver that product/service efficiently and effectively. Regulations or business policies that limit a lender's responses to changes in the marketplace clearly put it at a competitive disadvantage.

The Regulatory/Policy Challenge

A fundamental challenge that will be faced by the Farm Credit System is that of the regulatory and policy regime that shapes its business focus and activities. This challenge in reality involves two interrelated issues: (a) regulations that define the domain of the Farm Credit System with respect to customer and line of business focus, geographic boundaries, and product/service offering; and (b) Government Sponsored Enterprise (GSE) status.

The first issue of focus and domain of the Farm Credit System is possibly the most straightforward to assess. If the characteristics of both the customers and the competitors evolve as discussed earlier, the Farm Credit System will be increasingly at a competitive disadvantage in serving that changing customer base. Deregulation with respect to a broader set of loan products and financial services that would be attractive to both current and future grower and agribusiness customers, as well as other businesses in rural communities, would allow the Farm Credit System to serve its current and prospective future customers more effectively. Furthermore, as will be discussed shortly, a more diversified customer base would allow the system to more efficiently allocate its risk capital, thus increasing its competitiveness with other global financial institutions.

However, broadening the scope of lending and provision of financial services does not come without a cost. First, one of the benefits of being a specialized lender is that of understanding the industry and tailoring the product/service offering to that industry. If broadening the focus of the Farm Credit System results in less effective and efficient delivery of credit and other financial products to its current customer base, FCS will not be fulfilling its legislatively mandated mission, and the cost may offset the benefits. Furthermore, attempts to expand lending authority of the Farm Credit System will likely be met with resistance from other lenders—commercial bankers in particular. It is highly likely that the quid pro quo required by commercial bankers, if the Farm Credit System were to obtain expanded lending and financial service authority, would be the elimination of GSE status and favorable tax treatment received by certain Farm Credit System entities.

The critical issue, then, is how much the cost of sourcing funds would increase without GSE status compared to the cost reduction that would occur if FCS were a more diversified lender due to reduced equity capital requirements per dollar of loan funds. The costs and benefits of GSE status can not be adequately analyzed without taking into account the prospects of a more risk-efficient use of capital if the portfolio were more diversified.

The Capital Market Challenge

An increasingly important challenge that must be faced by all financial institutions (including the Farm Credit System) is that imposed by the capital markets to efficiently allocate and utilize risk capital. This challenge will be intensified with the phased-in implementation of the New Basel Accord concerning allocation of risk capital for all financial institutions worldwide. The increasingly competitive market conditions all institutions (including cooperatives) will face in sourcing equity capital and compensating providers of equity capital at competitive rates of return on their investment will require financial firms to be more prudent with the use of their equity capital.

A fundamental tenet of risk management and efficient equity capital allocation in any financial institution is that of diversification: Risk can be mitigated and equity capital most efficiently allocated when the institution has a diversified (in contrast to a specialized) portfolio of assets. This tenet is in direct conflict with the specialized focus of FCS lending that, as a function of regulatory policy and business practice, has very explicit boundaries concerning its geographic, line of business, product/service offering, and market segment domains. In essence, the Farm Credit System has been and continues to be a specialized lender that cannot take advantage of diversification to manage risk. System members are thus forced to maintain a higher equity capital position to manage that risk compared to a more diversified financial institution. The system may need to maintain its current high level of equity capital—almost double that of other financial institutions—if it remains as a specialized agricultural lender that cannot diversify. However, it is clearly overcapitalized compared to a diversified lender like Rabobank that can loan to many different industries in many geographic locations in the world. Moreover, from the perspective of current borrowers, this equity capital is "locked up," and consequently has limited current value.

The "excess" equity capital concern is very fundamental—one could argue that if the Farm Credit System operated without current geographic, line of business, product/service offering, and customer segmentation boundaries, the equity capital required would be reduced without increasing the financial risk and potential loss exposure of the system. This concern was in fact acknowledged by FCS of America when the board reconsidered and rejected the Rabobank offer, indicating it would implement policies to more rapidly redeem or repay its patron retains, thus allocating retained equity capital back to the shareholders.

But, a partial redemption of the equity capital may not solve the fundamental problem of efficient risk capital utilization—a specialized lender by definition must maintain a higher equity capital position to manage the higher level of risk it faces. Even further consolidation of the current FCS entities would not generate the risk mitigation advantages of more line of business diversification. Over time, if capital market investors, including those who provide equity capital to financial cooperatives such as the Farm Credit System, recognize that they are not and can not receive a competitive return on that capital as long as the institution maintains its specialized focus, they will move their capital elsewhere or support the transition to more diversification, unless that institution is clearly providing other benefits not available in the market place.

With the significant changes in customers and competitors noted earlier, it is likely to become increasingly difficult for the Farm Credit System to maintain its competitive position under the current regulatory environment that limits its scope. An expanded scope could provide for a system that is more responsive to today's competitive environment. In addition, a broader scope for the system may allow for a more risk efficient allocation of equity capital that would continue to attract investors. However, an increase in scope would require substantial changes in the current regulatory environment of the system, which may lead to the loss of GSE status. In addition, a broadening of scope and reduction in regulatory requirements may lead to further consolidation of the system. These costs will need to be weighed against the benefits of broader scope as the system determines its competitive strategy moving forward.

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Selling a Piece of the Farm Credit System

Robert W. Jolly and Josh D. Roe

On July 30, 2004, the Directors of Farm Credit Services of America (FCSA), an association of the farmer-owned cooperative Farm Credit System (FCS), announced that they had agreed to a purchase offer from Rabobank, an international financial services company headquartered in the Netherlands. This announcement set off howls of protest from within the FCS and from some FCSA members and public officials. It was also greeted with restrained glee by some bankers and other FCSA members. Three months later, the FCSA Board terminated the sale negotiation. Shortly thereafter, their CEO resigned and the board followed up with several full-page ads in local newspapers pledging their (and management's) commitment to members and to the principles of cooperation. In demonstration of their renewed commitment, the Board recently announced patronage programs for 2004 and 2005—the first ever by this association.

Unexpected and unprecedented events are generally interesting in their own right. But they also give us an opportunity to examine long-held views and plumb what lies beneath the surface in markets, institutions and public policy. The Rabobank/FCSA deal is one of those seismic events.

The Players in Brief

Sometimes you do need a scorecard to tell the players apart. Here are thumbnail sketches of the major players involved in the Rabobank/FCSA deal.

The Farm Credit System (FCS) is a nationwide farmer-owned and -governed financial cooperative. It currently provides $95 billion in short- and long-term loans to farmers, ranchers, fishermen, rural home owners, agricultural processing and marketing operations, farm-related businesses, farmer-owned cooperatives, rural utilities, and certain foreign and domestic entities engaged in international agricultural trade. Loans are funded not by deposits but rather through the sale of FCS securities in global money markets. The FCS was chartered and initially capitalized by the federal government following passage of the Federal Farm Loan Act in 1916. The motivation for creating the FCS was to provide a source of credit for agricultural mortgages at rates and terms that banks would not or could not meet—whether due to cost or inadequate competition. Although the FCS now provides a wide range of financial services to its designated customer base, slightly more than 50% of its business still comes from agricultural real estate lending. Since the FCS is a creation of the federal government, it is both a business and an instrument of public policy. It is privately owned (all public equity had been repaid by the 1960s) and governed by its members. But it is considered an instrumentality of the federal government when it sells securities. All income from agricultural real estate loans is tax-exempt. The size of the FCS, its collective liability for its debt, and its historical ties to the federal government result in an "implied guarantee" on its securities if the assets of the Farm Credit System Insurance Corporation were to be exhausted. This permits the FCS to borrow funds at a cost only slightly above the federal government. In exchange for these benefits, the FCS is required to serve exclusively rural and agricultural credit markets. The rationale for this bargain has been to ensure that credit is available to rural markets that might be abandoned by banks or other commercial lenders.

The FCS is organized into five regional banks. The regional banks fund a variety of associations serving smaller geographic markets. Farm Credit Services of America is an association of the FCS. It is funded by Agribank, FCB, located in St. Paul, Minnesota. FCSA provides approximately $7.7 billion in loans to farmers and rural home owners in Iowa, Nebraska, South Dakota, and Wyoming. The FCSA is owned and governed by about 53,000 members. (45,000 have voting rights.) The members are represented by a 17-member board. Following cooperative principles, FCSA is owned by those who use it and is governed on a one member, one vote basis.

Rabobank Group is a century-old member-owned bank based in the Netherlands. Its historical roots resemble those of the Farm Credit System. It was started in response to rural credit problems in the Netherlands. Farm and agribusiness lending constitute a long-standing core competency. Rabobank operates in 38 countries with an asset base (at the end of 2003) of approximately $500 billion. Rabobank has operated in the United States for the past 23 years specializing in agribusiness lending. However, in 2002 Rabobank began to implement their "country banking" strategy with a broader focus on production agriculture and rural credit markets. In fairly rapid succession, they acquired Valley Independent Bank in California, Lendlease Agribusiness Division in Missouri, and Ag Services of America in Iowa. These acquisitions gave them toeholds in rural community banking, agricultural real estate, and agricultural input financing, respectively. Rabobank's country banking strategy has been successfully implemented in a number of countries. For example, in 1994 Rabobank acquired the Primary Industry Bank of Australia (PIBA), an established lender with a comfortable loan portfolio. Since acquisition, Rabobank has significantly expanded its lending activities more broadly throughout the country and the agricultural and agribusiness sector. Rabobank continues to finance food and agribusiness firms in Australia as well. A similar pattern of acquisition and growth in rural, food, and agribusiness financial markets has been implemented recently in New Zealand and Ireland. Rabobank has fostered a reputation as a committed agricultural lender with exceptional safety and soundness ratings.

The Farm Credit Administration (FCA) is the regulatory agency for the FCS. Its primary role in overseeing the Rabobank/FCSA transaction was to ensure adherence to the legal process required for an FCS bank or association to leave the FCS and to approve or disapprove the proposal. If approved by FCA, the proposal would then be submitted to the FCSA stockholders for vote.

The Offer

So, here is the deal. Initially, Rabobank offered current FCSA members a $600 million cash buyout for the assets of the association—loans, personnel, customer base, and facilities. The payment would be allocated based on current patronage or outstanding loan balances. This cash offer was eventually increased to $750 million. An exit fee of approximately $800 million would be paid to the FCS Insurance Corporation from FCSA surplus. The calculation of the exit fee is specified in the 1987 Farm Credit Act and is based on an association's capital relative to its assets. It can be viewed as a payment for the benefits received by the association for being part of the system. In addition, Rabobank would need to pay off the $6.2 billion credit line from Agribank funding FCSA's existing loan portfolio.

Good Deal or Not?

At the time the deal was announced, the directors identified a number of benefits for FCSA members:

- a broader set of financial services, including access to international markets;
- competitive cost of funds due to Rabobank's AAA credit rating and size;
- a cash payout from FCSA capital surplus; and
- an opportunity to slip the bonds of the FCS and to serve a broader array of rural households and businesses.

Opponents to the sale also expressed concern that:

- Most of the financial services that Rabobank could offer were or could be offered by FCSA.
- The FCSA could develop a patronage program—as most FCS associations have already done. Patronage programs would serve as an alternative means for member/borrowers to share in the earnings of their cooperative.
- The cash offer was too low, given FCSA's assets and earnings.
- The current members would obtain the cash from the sale, but because it wasn't clear how much of the cooperative's capital was due to the patronage of former members, the former members would be out of luck.
- The exiting association would leave a significant hole in the FCS that the FCA would be required to fill either by expanding the territory of existing associations or chartering a new association. Resources for either option might have to partially come from equity contributions of other FCS banks and associations.
- If FCSA were allowed to secede, a mass exodus of other associations could follow.
- Rabobank, although ostensibly committed to agriculture, would be free to follow profit opportunities in any market. This commitment to rural finance would be much more flexible than the legislation governing the FCS.
- Finally, many FCSA members were concerned about the loss of control over an organization that

they had built and relied on for nearly 80 years.

Why Sell When You Can Merge?

Shortly after the Rabobank/FCSA deal was announced, AgStar, another Agricultural Credit Association serving parts of Minnesota and Wisconsin, presented the FCSA directors with a merger proposal. The merger offer included a cash payout to FCSA members of $650 million and consolidation of administrative offices. Further, because this was a merger and not an exit, the exit fee would be avoided. However, the FCSA board rejected the AgStar offer at the same time as the termination proposal.

What Were They Thinking?

The Rabobank and FCSA folks are no dummies. Yet, this deal is vaguely reminiscent of the introduction of New Coke. The negative reaction from many members, as well as parts of the agricultural community, was quick and strong and seemed to catch the proponents of the sale off guard. Rabobank's stated objective in purchasing the FCSA was to enter a new rural credit market. This strategy of enter, transform, and expand has played out reasonably well in other markets. In singling out the FCSA, was Rabobank attracted to the market? The firm? Or was it an opportunity for a bargain? The answer, it seems, is all of the above.

Figure 1 traces the current value of farm operator assets and debt in the FCSA trade area. Note that since the end of the 1980s, nominal credit volume has grown steadily but slowly—around 3% annually. Also note that outstanding non-real estate debt is nearly equal to real estate debt in this market. And because the value of farm assets has increased at a much greater rate than debt, nominal net worth (and hence potential collateral) has grown significantly.

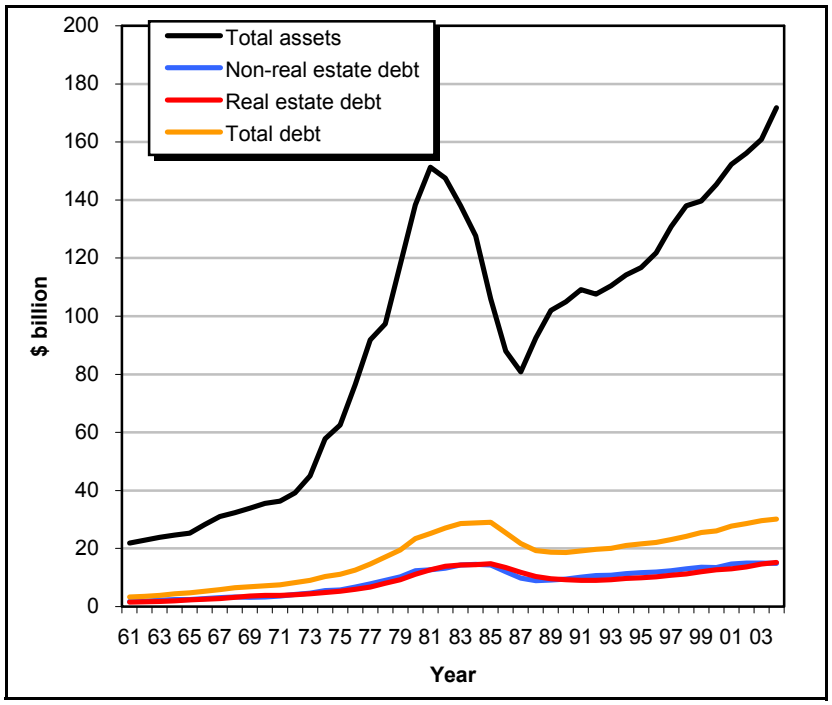

Figure 1. FCSA trade area farm assets and liabilities—1961–2004.

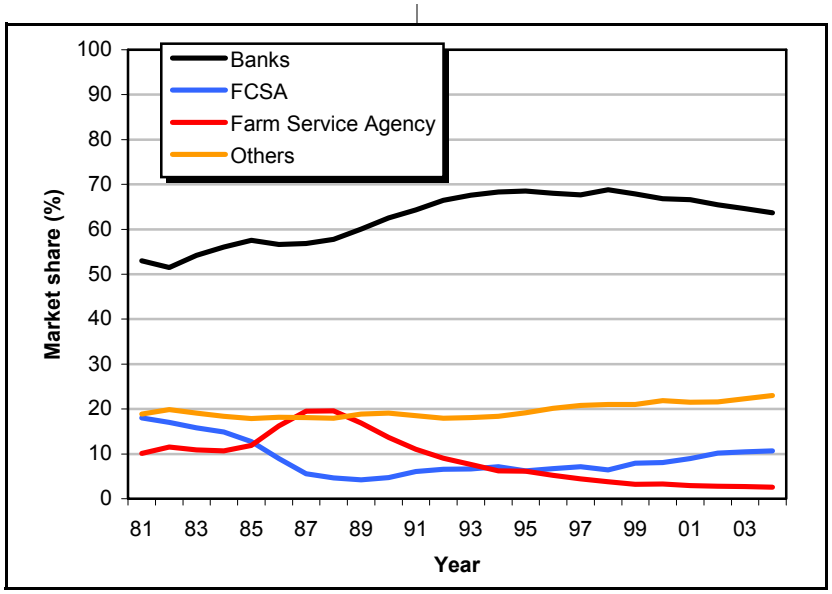

Figure 2. FCSA trade area non-real estate farm debt market share by lender—1981–2004.

Figures 2 and 3 show the changes in market share for major lenders serving the short- and long-term markets in the FCSA trade area. Commercial banks are clearly the dominant non-real estate lender. The FCS and other (mostly nontraditional) lenders have made some inroads in recent years. One of the most striking features of the real estate market is the gain in market share achieved by commercial banks—from dead last in the early 1980s to the top of the heap 15 years later.

A quick perusal of this information reveals a mature market—slow

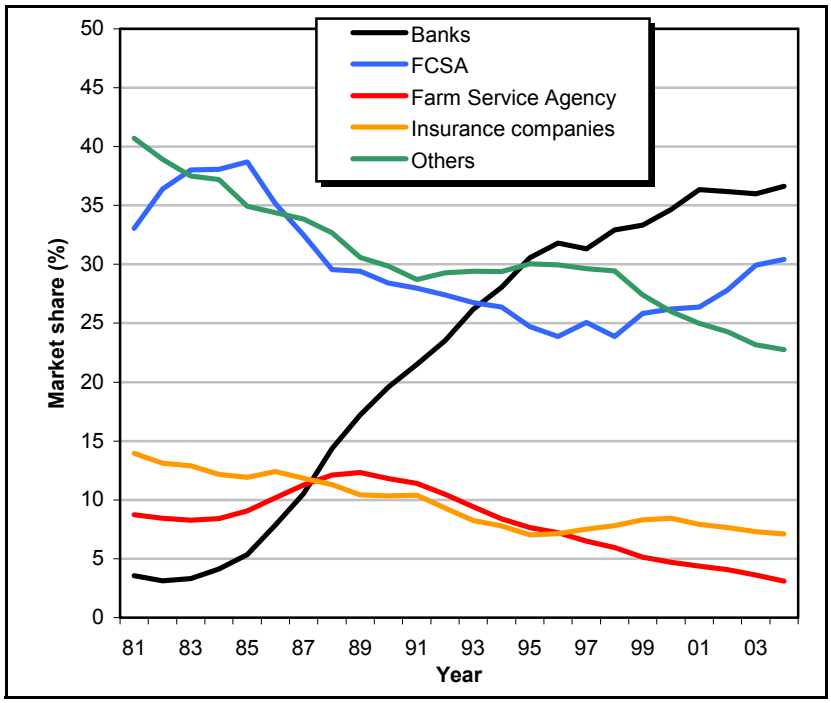

Figure 3. FCSA trade area real estate farm debt market share by lender—1981–2004.

growth in credit volume with existing firms battling for market share. The apparent winners of this zero-sum game are the banks. FCSA's total farm debt market penetration is relatively low—less than 22% in the four-state area compared with about 50% for banks in 2004. This contrasts with FCS penetration nationally of 30% and more than 40% in some markets such as Michigan or Ohio. Keep in mind, too, that many of the commercial banks serving this market are small closely held businesses. Small size imparts higher costs, loan limits, and a reliance on local deposits—hardly strategic assets for a mature market.

Was FCSA a plum to be picked? In Table 1 we compare financial characteristics of FCSA with two other associations. Farm Credit Services of Mid-America serves farmers in the eastern Corn Belt and is roughly the same size as FCSA. AgStar is smaller, but has had a patronage program in place for the past few years. Again, a quick look suggests that FCSA's performance measures are generally weaker than the other two associations. In particular, note that FSCA earned a lower return on its assets and member capital. The lower charge-off rates, while admirable for being low, may indicate a rather conservative lending philosophy. This is supported by the fact that FCSA tended to favor real estate lending. Non-interest expense is higher, despite the fact that real estate lending is usually a lower cost business compared to short-term lending. And, FCSA is certainly sitting on a pile of capital.

Finally, FCSA could have been attractive because it was offered at a favorable price. Space doesn't permit a complete discussion of this topic. However, capitalizing earnings can suggest a value. In Table 2 we show capitalized values for a range of incomes and required rates of return. As a reference point, we use $115 million (the average income for FCSA for the past three years) and a nominal return of 12%. The analysis is very simple—but it does suggest that a $600 or $750 million offer might have been a tad low.

Table 1. Average financial measures, 2001-2003 for selected farm credit associations.

	FCS America	FCS Mid-America	AgStar
Average assets ($ billion)	$6.99	$7.26	$2.23
Return on average assets	1.77%	2.07%	2.20%
Return on average total capital	10.78%	12.78%	16.30%
Net interest income/earning assets	2.83%	2.27%	3.07%
Net charge-offs/ average loans	0.09%	0.20%	0.17%
Real estate loans/total loans	70.2%	35.2%	40.7%
Average loan interest rate	6.06%	6.28%	6.25%
Permanent capital ratio	14.23%	14.90%	12.63%
Retained earnings/assets	16.10%	15.08%	10.68%
Non-interest income/assets	0.74%	0.47%	0.47%
Non-interest expense/assets	1.60%	0.62%	1.06%
Wages/assets	0.85%	0.39%	1.14%

Seismology

There is no question that the Rabobank/FCSA deal shook up farmers, lenders, and public officials. A number of questions stemming from this transaction merit consideration and answers:

If FCSA is attractive to a private firm, are the various legislative and tax preferences granted to the FCS justified? Or have changes in farm

Table 2. Estimated bank value ($ million).

Required rate of return (%)		Income ($ million)		
Nominal	Real	110	115	120
9	5.8	1,897	1,983	2,069
12	8.7	1,264	1,322	1,379
15	11.6	948	991	1,034

structure and information technology moved us to a point where the traditional problems of rural credit markets—distance and information—no longer require unique institutions or policies? The same questions arise simply from the growth in real estate backed lending by banks. If deposit-based lenders can profitably make agricultural land loans, is government-sponsored enterprise status still needed for the FCS?

Do rural credit markets need increased competition? Most lenders, particularly community bankers, would argue that they have to work hard enough as it is to attract deposits and originate loans. Nonetheless, agricultural lending remains a fragmented industry, and fragmented industries frequently leave money on the table. Rabobank's interest in this market suggests there could be some gains from further consolidation.

Organizations generally don't spend much time working on procedures for events that they don't think will occur. The FCA regulations and the FCSA's bylaws that govern exit from the FCS appear to be incomplete. Two major stumbling blocks arose as a result of the FCSA purchase. The statutorily required exit fee did not appear to reflect the full value of the benefits an association derives from being part of the FCS. And, because the association had not had an earnings patronage program in the past, there was no way to link property rights of former members to the capital surplus and the earning potential of the association.

Some financial cooperatives such as the FCS (or credit unions, for that matter) do not pay patronage (two thirds of FCS associations do pay patronage). The benefits to members in lieu of patronage may appear in other forms—lower loan rates, more office locations, or better-trained personnel, for example. But an unwillingness to pay patronage dividends can create an unaccountable cash flow that may result in expense preferences and other managerial mischief. In fairness, following the 1987 bailout of the FCS, a growing capital surplus was a goal of the system so that government assistance could be repaid and the FCA could be assured that none would be required in the future. If some capital is good, perhaps more is better. However, patronage allocation of at least some earnings can be accomplished along with goals for capital growth. It is clear that management of FCS capital and patronage needs a careful look.

Effective governance is critical in both cooperatives and investor-owned firms—as the stockholders of Enron will surely attest. When directors and their hired managers take actions that produce an uproar on the part of members or investors, both the governance process, as well as its performance, need to be carefully reviewed and strengthened. Cooperative boards, in particular, must work to overcome an inherent conflict of interest, because they are members who represent members.

Finally, perhaps the time has come to take FCS off its leash. The FCS might trade off its tax preferences and instrumentality status for the freedom to seek opportunities in a broader market. The FCS is unique because it is a financially strong cooperative with a national infrastructure and reach, 80 years of rural lending experience, and an enviable ability to source loanable funds. With those assets and a rural credit market that appears to offer some opportunities, the FCS may be ideally suited to compete on a leveled playing field to the benefit of rural America. Such a bold stroke, however, should only be considered if the historical mission that underlies the creation of the FCS could be assured—the dependable and permanent supply of credit for all segments of the agricultural sector.

Links

- Farm Credit Services: http://www.farmcredit.com
- Farm Credit Services of America: http://www.fcsamerica.com
- Rabobank: http://www.rabobank.com
- AgStar: http://www.agstar.com
- AgriBank: http://www.agribank.com
- Farm Credit Services of Mid-America: http://www.e-farmcredit.com/Default.aspx?2-18
- Farm Credit Administration: http://www.fca.gov/FCA-HomePage.htm

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Are Rural Credit Markets Competitive? Is There Room for Competition in Rural Credit Markets?

Maureen Kilkenny and Robert W. Jolly

Talk to a country banker these days and the first subject will likely be competition—cherry picking by the Farm Credit System, sneaky tax-free credit unions, captive finance companies hawking credit as a loss leader, investment houses siphoning off deposits, and so on. It's a long list and an old refrain. But it reveals an important question: How hot is the competition in rural credit markets? If it's not hot enough, we could expect credit rationing that limits economic growth. If it is too hot, there is a risk of declining credit quality and failure of financial institutions, which would also limit growth.

Our interest in this topic is motivated, to some extent, by the recent bid by Rabobank into the Western Corn Belt. That event suggested that profit opportunities might exist in rural credit markets. But there is a broader issue as well. Rural credit markets are often fraught with inefficiencies. Remoteness—frequently in association with poorly defined property rights, rule of law, and poverty—can make it difficult to extend credit to rural households, farms, or firms. This problem is widespread in developing and transitional economies. And, historically, it has been a problem in rural areas in the United States—one that has been dealt with by creating unique rural lending institutions, public policies, and other interventions.

In this paper we attempt to take the temperature of the competitive forces in rural credit markets in 12 Midwestern states. A recent review by economists at the USDA's Economic Research Service pointed out that the average rate of return on rural-headquartered bank assets has been systematically higher than the return on urban bank assets. The review presented a number of indicators suggesting that rural credit markets may be less than perfectly competitive. Rural banks charge higher interest rates on loans, pay lower interest rates on deposits, and take fewer risks. The authors argued, however, that the small size of rural communities and the low number of rural borrowers might limit the number of lenders that can profitably compete in rural counties. And, since 1997, the number of bank firms has continued to decline.

Bank market structure has changed in recent decades, consolidating from a peak of 14,000 firms in 1983–4 to about 7,800 today, according to the FDIC. In his review of the structural changes in the nonmetro financial service sector, Lence concluded that the decline in the number of bank firms has been driven by bank stockholders' search for return on equity (Lence, 1997). Bank consolidation has been made possible by the relaxation of policy restrictions against branch banking over the past 20 years. Mergers of smaller banks have been driven by the opportunity to achieve economies of size and geographic and market portfolio diversification. But at the same time we have observed new bank branches opening in rural credit markets, along with a host of nonbank lenders. The fact that the number of bank offices has *increased* since the 1980s from 55,300 to more than 75,000 in 2004 may suggest that rural citizens have more access to bank credit than ever. Let's take a look at the landscape in rural credit markets.

Table 1 reports numbers and types of bank offices in the urban and rural counties in 12 Midwestern states. The types of banks that operate in rural areas are more often unit banks (banks with no branch offices outside the headquarter county) or small community banks with a few branch offices all in the same county. On average, there are five or fewer bank firms operating in strictly rural counties. There are twice that many competitors in larger nonmetro counties and more than 30 bank firms competing in the average central metro county in the US Midwest.

Table 1. Average banks and bank offices by county type (US Midwest, June 2001).

	County type[a]	Code	# firms	% unit bank	% below $100m	# offices	% community bank offices
Metro HQ ("urban")	Central metro	0	33	16%	7%	161	32%
	Fringe metro	1	11	20%	18%	25	55%
	Mid-sized metro	2	14	14%	10%	50	34%
	Small metro	3	13	24%	18%	36	55%
Nonmetro HQ ("rural")	Large nonmetro, adjacent	4	12	23%	22%	25	63%
	Large nonmetro, nonadjacent	5	10	30%	31%	19	73%
	Mid-sized nonmetro, adjacent	6	8	30%	37%	13	76%
	Mid-sized nonmetro, nonadjacent	7	7	30%	39%	10	79%
	Rural, adjacent	8	5	31%	53%	7	83%
	Rural, nonadjacent	9	4	32%	56%	5	86%

[a] Beale Code definitions are as follows. Metropolitan counties (0–3): 0—central counties of metropolitan areas of 1 million population or more; 1—fringe counties of metropolitan areas of 1 million population or more; 2—counties in metropolitan areas of 250,000–1,000,000 population; 3—counties in metropolitan areas of less than 250,000 population. Nonmetropolitan counties (4–9): 4—urban population of 20,000 or more, adjacent to a metropolitan area; 5—urban population of 20,000 or more, not adjacent to a metropolitan area; 6—urban population of 2,500–19,999, adjacent to a metropolitan area; 7—urban population of 2,500–19,999, not adjacent to a metropolitan area; 8—completely rural (no places with a population of 2,500 or more) adjacent to a metropolitan area; 9—completely rural (no places with a population of 2,500 or more) not adjacent to a metropolitan area.
Note. Data from FDIC.

Distance insulates rural banks from competition, so even smaller, less efficient banks may thrive there. Distance can also insulate high-profit banks from competition. Even if there are no barriers to entry (other than fixed costs), space imparts market power because lenders can afford to charge nearby customers higher rates without fear of losing them to more distant competitors, because distance increases the costs of monitoring loans. By the same token, the proximity of the lender to the borrower, and their participation in the same social networks or community institutions can improve opportunities for loan origination and make applicant screening and monitoring more efficient. Relationship lending has been shown to be essential to a bank's competitiveness (Moss, Barry, & Ellinger, 1997). In addition, because bricks-and-mortar banks are lumpy, sparsely populated counties may simply be too small to justify the construction of an additional bank office. Banks are required to obtain approval to enter a new market from the relevant regulatory agency. Part of this approval process involves justifying that there is a need for additional banking services in the local market.

In sum, financial intermediaries in rural areas may be able to price-discriminate without losing their rural customers, because other potential lenders are effectively too far away (Degryse & Ongena, 2004). Price discrimination and barriers to entry may result in less credit being extended in rural areas than is optimal. To test if these conditions exist, we can examine data on commercial banks for indicators of above-normal profitability and indicators favoring entry into the region's credit markets. An obvious shortcoming of this approach is that we are not able to fully account for competition from other rural financial intermediaries. But it is a place to begin—particularly given the market share dominance of banks in rural credit markets.

To determine if rural banks possess exploitable market power, we have to account for the fact that many banks operate in more than one location. This includes banks that are headquartered in rural areas but operate as either as a multibank holding company or simply have several branches, as well as large money-center banks that branch into rural areas. To begin, we estimate the market power enjoyed by a bank by weighting the bank's share of each market in which they operate by the market's share of the bank's total deposits. Then we estimate the profitability of a bank in a location by weighting the profitability of each bank with an office in the location by that bank's share of the total deposits in the location. A bank may have market power, but if it isn't profiting from it, we conclude it is not exploitable—that the markets are sufficiently competitive. Finally, we test the hypothesis that a location's profitability is sufficient to induce entry.

We analyzed the data on all the banks with offices in the Midwest, including more than 4,000 bank firms and their offices by county across five Federal Reserve districts in 12 Midwestern states: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and

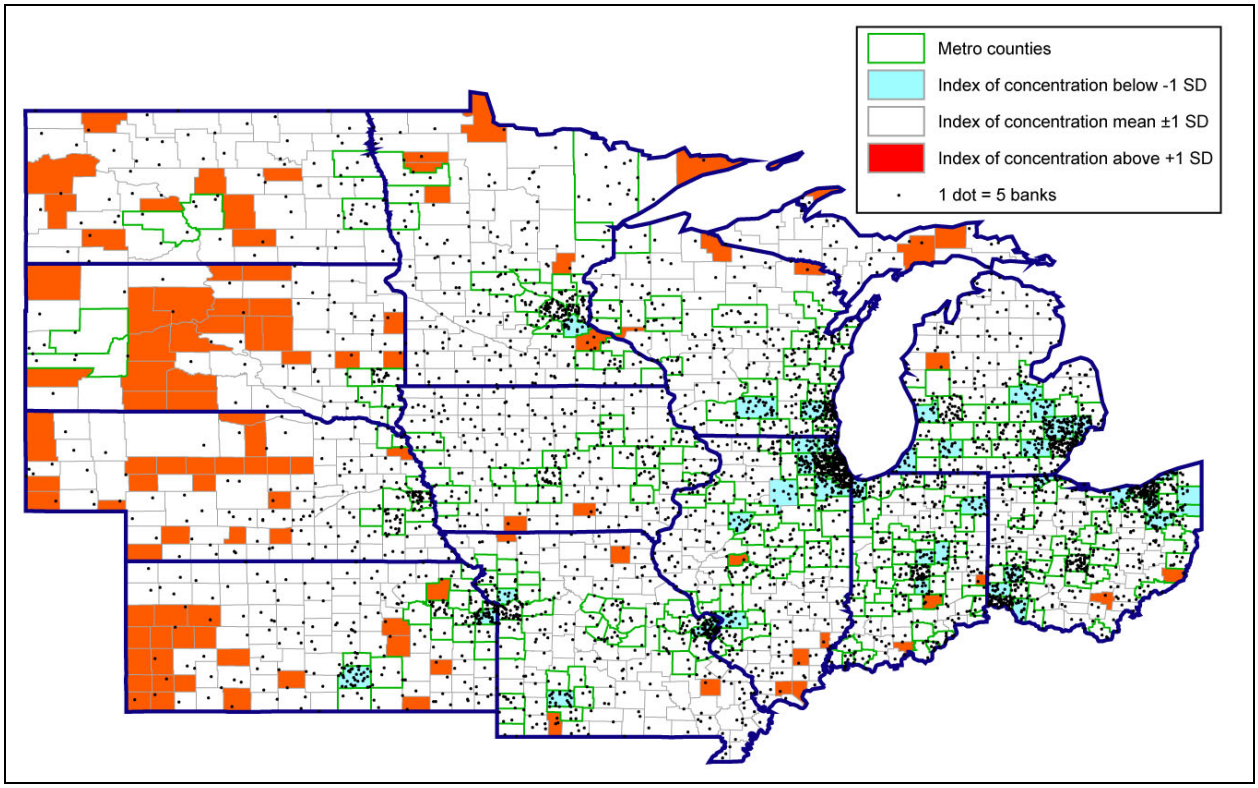

Figure 1. Low-competition counties.

Wisconsin, as reported to the FDIC on June 2000, 2001, and 2003. We found significant evidence of room for more competition in credit markets. Banks that control larger shares of the deposits in the counties in which they have offices have earned above-normal profits. This evidence is consistent with the hypotheses that the market power rural banks have is exploitable. Banks with superior management or production technologies who are insulated from competition by distance, or who differentiate their financial products, have been able to exercise and profit from market power in the Midwest. The percent of loans to farmers or backed by farmland also supports higher profits for commercial banks.

Figure 1 shows the counties with unusually few competitors. The blue-shaded counties are counties where the banking market is quite competitive and the market power of any one bank is low. The orange-shaded counties are where one or a few banks have unusually large shares of the deposits, indicated by a high Hirschman-Herfindahl Index. These counties are low on competition. Because our statistical analysis indicates that banks with low competition do earn higher profits, it is into these counties that a bank may consider expanding.

Next, we investigated whether the profitability of banks in a county has in fact been sufficient to induce entry into a county in the recent past. Between 2001 and 2003, the number of bank offices rose by 1,600; in all types of Midwestern counties except rural counties adjacent to metropolitan ones (FDIC data; Table 2). The largest rate of growth in offices was in counties with towns larger than 20,000 that are not adjacent to metro areas. Midwestern rural counties continue to be much denser in terms of bank offices per person than urban counties. Because there are already more bank offices per person in nonadjacent rural areas than any other type of county, there was little expansion in those counties. But despite the emergence of e-banking, the profitability of being physically close to one's customers was apparently sufficient to justify the existence of one brick-and-mortar bank office per 1,000 persons in the totally rural areas of the Midwest (Table 2).

In our statistical analysis we found that existing banks did indeed open additional offices in profitable locations. But the profitability has not been sufficient to entice new bank firms into those counties—just new offices of existing banks. Bank office coverage also appears to be diffusing across space. More new offices have opened in places where office density is lower; especially in urban areas where there were fewer offices per capita, but also in nonadjacent rural areas where there were fewer offices per square mile. Nevertheless, in

Table 2. Bank firm and office entry.

		2001			2001-2003, % change			
County type[a]	Code	# firms	# offices	Offices/ 1,000 cap	# firms	# offices	POP	Offices per capita
Central metro	0	33.0	161	0.27	4.9%	12.0%	2.1%	9.7%
Fringe metro	1	11.3	25	0.35	5.3%	5.0%	4.3%	0.7%
Mid-sized metro	2	13.5	50	0.33	6.8%	5.7%	1.5%	4.2%
Small metro	3	12.7	36	0.35	6.8%	7.6%	1.0%	6.6%
Large nonmetro, adjacent	4	12.0	25	0.38	2.0%	2.3%	0.3%	2.0%
Large nonmetro, nonadjacent	5	10.2	19	0.41	7.8%	10.8%	-0.3%	11.2%
Mid-sized nonmetro, adjacent	6	7.6	13	0.50	3.0%	3.3%	0.6%	2.7%
Mid-sized nonmetro, nonadjacent	7	6.7	10	0.59	3.3%	3.4%	-0.6%	4.0%
Rural, adjacent	8	5.3	7	0.73	-1.6%	-0.2%	-0.3%	0.1%
Rural, nonadjacent	9	3.6	5	0.91	1.0%	1.4%	-1.4%	2.8%

[a] See Table 1 footnote for Beale Code definitions.

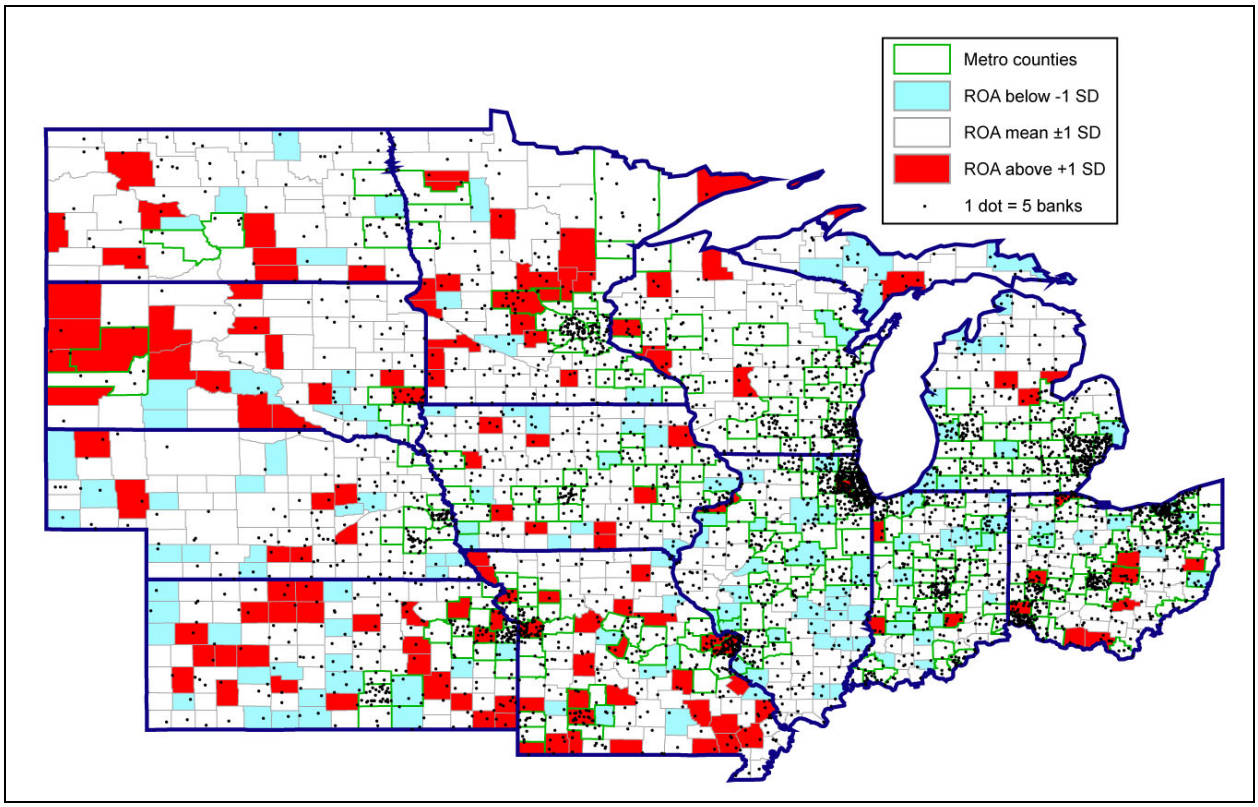

Figure 2. High-profitability counties.

rural counties adjacent to metro areas, there were bank and office closures.

In particular, Figure 2 shows the counties that display the conditions that recently inspired existing banks to open new branches. These are counties where the rate of return on bank assets has been unusually high and the number of bank firms is unusually low. The map highlights the 106 Midwestern counties (10% of the total 1,047) worth a closer look. These hot spots are colored red. These counties are where the returns on bank assets, weighted by the share each bank has of all the deposits in the county, are more than one standard deviation above average. The blue counties are where the banks that operate there are not profitable. One may also infer that some of those blue counties may be places where there are just "deadbeat"

banks, whose rates of return on assets are low because of poor management. Those counties may also be areas where more efficient banks could profitably open new branches.

Many of the potentially attractive counties are in South Dakota and Nebraska. By the way, those two states are served by Farm Credit Services of America, the agricultural credit association that Rabobank recently bid to acquire. Sixty-five percent of the hot spots are completely rural counties, with no towns larger than 2,500. Metro counties are outlined in green. Although only 2% of the region's metro counties look attractive for entry, over 13% of the nonmetro counties may be. We conclude that there is room for more competition in rural credit markets.

Further market research is needed to understand if these might be attractive locations for bank office entry, expansion, or takeover. Census data indicates that some of these rural hot spots have high Native American populations. That makes some sense if banks in casino areas are unusually profitable. Product differentiation may explain their advantages. Our FDIC data also indicates that the people in these hot counties are savers. Bank deposits per capita are 25% higher on average. They are also more self-sufficient places. The proportion of local residents employed within their county of residence is twice as high in the hot counties than in all the other counties. And they are not necessarily high-growth places—yet. The average rate of population growth over the decade 1990–00 in the hot counties was only 0.5%, compared to an average population growth rate of 6% in the rest of the Midwest.

All our analyses showed that regardless of their size, headquarters location, or other characteristics, banks that specialize in farm lending are more profitable. In the presence of barriers to entry, this is consistent with a hypothesis that banks providing farm credit engage in credit rationing towards farmers and away from nonfarm borrowers, as shown by Turvey and Weersink (1997). Coupled with the evidence in Collender and Shaffer (2003) that farming-dependent county income growth is more sensitive to local bank firm concentration, it suggests a hypothesis that agricultural credit demands may crowd out nonfarm demands for bank loans in farming-dependent rural areas. It also suggests that there is room for more of both farm and nonfarm lending in the rural Midwest. We hope these tables and maps have provided the kind of information that helps community leaders and existing Corn Belt bankers to focus their attention on some of these opportunities.

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FCSA Sale to Rabobank: Selling What? On Whose Authority? And For Whose Benefit?

Roger Ginder

Rabobank's proposed buyout of Farm Credit Services of America (FCSA) would not, on its face, seem to be a radical event. Buyouts, mergers, and consolidations are certainly not an uncommon event in the US economy. Aren't buyouts nothing more than one of the methods firms use to adjust to changes in market conditions? Absent any egregious anticompetitive side effects, they usually occur with a minimum of fanfare beyond the press releases of the parties involved.

But in the case of FCSA, there were strong and sometimes strident outcries from a number of quite varied sources. Challenges were coming not only from some of the current FCSA members, but also from former directors and members, other farm credit institutions, and even some US congressmen and senators. Just what made the proposed FCSA deal so different from all of the others?

At least some of the differences observed in the Rabobank-FCSA case are related to the ambiguities created by (a) the FCSA charter and its intent; (b) the relationships of FCSA to the rest of the Farm Credit System (FCS); (c) the historical background of the FCSA entity; (d) the fact that FCSA is organized as a cooperative rather than an investor-oriented corporation (IOC); and (e) the FCSA pattern of retaining its earnings as unallocated equity rather than allocating it to borrowers. These factors not only create a larger set of stakeholders than would typically be the case for an IOC, but they also create a much different set of claims and expectations.

The Charter

The charter for the FCS banks or Agricultural Credit Associations differ from typical commercial bank charters in a couple of important ways. The vast majority of corporate charters, including those for commercial banking corporations, are issued by the states. In addition, the charter is required to enter the banking business. These banking charters are issued and regulated by either state banking authorities, or the Office of the Comptroller of the Currency (OCC) in the case of national banks, and usually permit the holder to take deposits from the public. The charters issued to the Farm Credit System banks do not permit depository rights and are issued by the federal government in accordance with farm credit legislation passed by Congress. But, there is another key difference. FCS charters are issued in a way that guarantees that there is an FCS bank serving the producers in all geographic areas of the United States. Thus, the charters are issued as a means of meeting a legislative mandate rather than simply enabling the establishment of a commercial entity. At a minimum this complicates the question of selling an FCS Bank or Ag Credit Association such as FCSA to a non-FCS entity.

After such a sale, the legislative mandate still exists for the FCS to serve the geographic area. However, the operational means to accomplish the mandate has been sold to a noneligible entity that is beyond the reach of the FCS regulators. There is always the option to charter a new FCS entity and start over. However, it could take years before the new entity could develop significant market share, become well capitalized, and effectively serve the market. The "new start-up" solution also ignores the question of whether there is a genuine need for an additional player in the market. Just how the intended uniform access to the FCS would be achieved remains an issue in this kind of transaction.

Whether the current shareholders of an FCS chartered Agricultural Credit Association or a FCS bank have the unilateral authority to liquidate the capital built up while it was operating under that FCS charter is also an open question. In addition to the unique responsibilities mandated by the charter, there are also unique advantages. The charter carries some significant tax and funds acquisition

advantages for building equity and reserves that would generally not be available to other non-FCS institutions.

As long as the FCS-chartered entity continues to perform its legislative mandate, these advantages are more easily defended. But when a group of stockholders attempt to sell the Agricultural Credit Association or bank and distribute its accumulated unallocated surplus and reserves, the special treatment may be less defensible. The action would not only leave the FCS entity in a poor position to perform on its legislative mandate, it would also create a more favorable treatment for the current set of FCS Agricultural Credit Association stockholders than the treatment accorded similar sets of stockholders in other non-FCS lenders.

The Other Banks in the Farm Credit System

Other banks in the system were clearly not supportive of the sale, and some raised vocal opposition to their members, regulators, and the press. It would appear that the stockholders of FCSA would have the undisputed authority to sell or dissolve without any obligation to the other parts of the FCS. All of the Farm Credit System banks and associations (including CoBank, AgroBank, etc.) are independent business entities with separate balance sheets governed by separate boards of directors and owned by distinct sets of stockholders. Why should other FCS banks and Agricultural Credit Associations care if FCSA dissolves itself?

Despite the autonomy of each FCS bank or entity in most visible respects, they have some less obvious interdependencies and shared responsibilities. When FCS bonds are sold into the financial markets, they are sold for the entire FCS as a whole rather than individual FCS chartered banks or associations. This means that exit of an FCS entity with significant loan volume has the potential impact of reducing the size of issues. Likewise, exit of an FCS entity serving a specific region may marginally reduce the geographic and commodity diversity of the portfolio behind the issue. Perhaps even more significantly, all of the banks and associations in the system are "jointly and severally liable" for the bonds issued. Stated differently, in the event that an FCS entity fails and cannot meet its obligations to bondholders, a formal set of loss-sharing procedures defined among the remaining FCS entities is triggered.

Thus, a portion of the equity in all FCS banks or Agricultural Credit Associations serves as the first line of defense when a system entity cannot meet its obligation to FCS bondholders. This procedure was last triggered in the mid-1980s during the farm debt crisis, when capital from all parts of the Farm Credit System was used to prevent default when some of the banks began to fail. Subsequently, even this measure proved inadequate. Assistance from the US government was required to partially recapitalize many of the entities in the Farm Credit System to avoid a default on bonds that had been issued.

When it became apparent that US government assistance would be required to avoid default, the FCS banks and Agricultural Credit Associations did not approach the government individually. Instead, the Farm Credit System as a whole made a unified request. When the money provided by the government to avoid default was repaid in the 1990s, it was done through the system. FCSA benefited from these system-wide activities at a critical point in its history.

Although the individual Farm Credit System entities operate autonomously with respect to managing and capitalizing their activities, the authority for an entity to unilaterally decide to sell or liquidate itself remains unclear. The agreements for joint and several liability and the established patterns of joint behavior in times of great crisis for FCSA creates some ambiguity about the true extent of this autonomy. At a minimum, there is a serious question about whether any bank that has benefited from loss sharing and government assistance has absolutely no obligation to the rest of the system and is free to behave in a way that diminishes the stature and effectiveness of the system.

Organization as a Cooperative Versus an IOC

Firms organized as cooperatives share many characteristics with firms organized as investor-oriented corporations. Both are state-chartered corporate entities controlled by elected directors with a fiduciary responsibility to shareholders who have invested equity capital. Both are subject to market forces and may fail unless explicit intervention by government prevents it. To the general public, there are few visible differences as the firms go about their day-to-day business.

There are, however, a number of important differences between the two. Capitalization is one key difference. In a cooperative, the people using the products and services of the firm usually provide the equity capital required by the firm. In virtually all cases, some level of capitalization is required if the user is to share in the profits generated from the firm's

operation. Some cooperatives require capital to be provided not only as a condition for sharing in the profits generated by the cooperative, but also as a prior condition for gaining access to the products and services the cooperative produces. Farm Credit System banks impose this requirement on their borrowers.

In contrast, the investment activity in an IOC and the access to the firm's services are completely decoupled. A consumer of the IOC's goods and services may or may not choose to be an investor and an investor in the IOC may or may not choose to use the firm's products and services. Any melding of the role of investor and consumer is strictly voluntary and occurs entirely at the pleasure of the party involved.

Distribution of net margins or profits is another important difference between cooperatives and IOC's. Net profit margins generated by IOC's are distributed to stockholders based on the amount of equity provided. If the net margins are retained in the business instead of being distributed to stockholders, the value of the IOC is expected to increase. The presumption is that shareholders will receive more for their shares when they sell them and thereby capture the value.

Cooperatives generally distribute net margins based on the level of business that a member shareholder has done with the cooperative rather than the level of investment the member shareholder has made in the cooperative. The idea is to operate on an "at-cost" basis by returning any excess net margins above actual cost to those who were charged more than actual cost when they purchased products and services from the co-op. It is also common for cooperatives to distribute at least a portion of the net margins as equity rather than cash. This creates a pool of equity that has been retained to meet the need for additional equity. However, unlike the retained earnings in the IOC, these earnings have been identified with individual stockholder names, and there is an expectation that it will be redeemed in cash at some future date. It should be noted that most cooperatives hold some of the net margins as unallocated surplus reserves. It permits some level of operating loss to be absorbed without canceling some of the equity that has been allocated in prior years. (However, it is not at all common for a cooperative to retain virtually all of the earnings as unallocated equity, as FCSA did.)

Because members who do more business with the cooperative receive a proportionately greater percentage of the earnings, they also contribute a proportionately greater percentage of the allocated equity under this arrangement. Stated differently, their ownership of the cooperative is kept in rough proportion to their use. As long as the stockholder's equity contribution is roughly proportional to the level of business done with the cooperative, there is little quantitative difference between what the stockholder would have received had the net margins been distributed based on the amount of equity he or she held.

This raises the question: If there is little or no difference, then why not just organize as an IOC and pay out the net margins based on profits? The answer lies in the motivation the founders have for forming the organization. If the motivation is simply to maximize return on capital invested, then the IOC is the superior choice. Once formed, the IOC is free to seek out maximum return to shareholder capital as its singular goal and pursue any legal opportunity to do so.

However, if the motivation is to address some sort of market failure (such as providing a product or service that is underprovided by the market or providing increased competition in the marketplace), the cooperative may be a better choice. In that case, the founders want to limit the activity of the firm to those markets they use and wish to influence. Although it is still important to generate a return on shareholder investment, maximizing return on investment is not the singular goal. A dual goal of correcting market failure and generating an acceptable return on invested capital is pursued. An additional consequence of the dual goal is a more complex board of director's fiduciary responsibility to shareholders.

A third important difference between cooperatives and IOC's is the way that owners exit the business. In the typical publicly traded IOC (and some that are not publicly traded), the IOC assumes no responsibility to redeem its stock in cash. The stockholder must sell the shares to a third party in order to receive the value of his or her interest in the company. Potential buyers of the stock are presumed to capitalize any undistributed net earnings into the share price; thus, the sale of stock incorporates the value of any undistributed net margins due the shareholder into the share price.

In contrast to the IOC, cooperatives typically redeem purchased shares of stock at the same face value it had at the time of purchase. Net margins that have been issued as equity for later redemption are handled in a similar fashion. This creates no problem as long as the cooperative allocates all of the net margins to individually identified users of the coop-

erative. When a member exits, he or she has explicit rights to both the purchased share and the allocated net margins received while actively using the cooperative.

However, if net margins have been retained as unallocated surplus (without an identified user's name attached), a serious problem arises in reflecting the increased value of the firm when the stockholder no longer needs the co-op and wishes to exit. The share price is fixed and will be redeemed at the same value it had when it was purchased. If the net margins have been held in unallocated form instead of allocated, the shareholder has no explicit rights to them. Absent any explicit claims, cooperative members receive the value of the unallocated surplus only upon sale or dissolution—an extreme measure.

Because few (if any) FCSA earnings had been allocated since the mid-1980s, this was precisely the situation confronting FCSA shareholders in 2004. Following the farm debt crisis of the mid-1980s and the passage of the Agricultural Credit Act of 1987, FCSA and its predecessor banks had dutifully repaid government assistance given, capitalized an insurance fund, and steadily rebuilt reserves by withholding earnings as unallocated surplus reserves.

Under the leadership of the board of directors (and most likely at the behest of regulators), members borrowing from the bank during this period agreed to forgo receiving allocated patronage refunds in order to rebuild adequate reserves to provide the bank with enough reserves to withstand another period of disastrous losses without assistance from the government. Apparently, most borrowers felt that ensuring the existence of a viable Farm Credit System bank dedicated to providing a consistent source of competitively priced long- and intermediate-term credit to agriculture was worthy of the sacrifice.

Some would argue that FCSA had gone past the level of reserves required for prudence and could have begun allocating equity long before it did in late 2004. Indeed, a large number of the sister Agricultural Credit Associations and FCS banks in the Farm Credit System (including CoBank) had done so. Perhaps this was due to an incomplete understanding about the differences between cooperatives and IOC's and the inability of cooperative stockholders to access unallocated reserves. Or, perhaps the turmoil experienced in the 1980s caused the management and board of FCSA to act with an abundance of caution and to continue to build unallocated reserves. One can only speculate about the motives, but the fact that Federal Land Bank sourced earnings could be placed into surplus without taxation almost certainly played at least some role. It enabled these earnings to be placed into surplus without a tax consequence. Had these earnings been allocated to members, either the member who received the allocation or the co-op would have had to pay income tax on them.

The Offer From Rabobank

By early 2004, FCSA found itself holding a very large pool of unallocated equity with no visible way (short of sale or liquidation) for members to access it. This made it an ideal target for an outside offer to purchase. Sale of the FCSA would result in an inflow of cash; the cash could then be distributed to current stockholders who had purchased shares of stock at a modest cost as a condition for joining. The payout would be multiples of the relatively modest price of the shares they had purchased. This creates an enormous incentive to sell the cooperative, perhaps even at a bargain price.

The payout to current shareholders would be very lucrative even if the sale price of FCSA were significantly less than its value as a going concern or its fair market value. Division of only half the fair market value (as estimated by some analysts) among the relatively small number of current stockholders would still yield a significant sum. Some large-volume borrowers would receive sums in five or six figures. All of this presumes that the current members of FCSA hold the only legal claims to the unallocated surplus reserves and can legitimately divide the proceeds among themselves. But are the current stockholders of FCSA really the exclusive and rightful owners of the unallocated surplus?

The answer for an investor-owned corporation (which pays its stockholders based on the amount of equity they hold) is straightforward. It belongs to the current stockholders. Those who have sold their stock and are not currently shareholders have no claims. Presumably, the value of retained earnings was capitalized into the stock price when they sold their shares. Thus, all prior stockholders received fair market value at the specific time of the sale, and all of the value of the unallocated retained earnings would be due to current stockholders.

In the case of FCSA (which is a cooperative), the answer is not so simple. Several key differences between cooperatives and ordinary investor-oriented corporations complicate things. (a) Unlike the ordinary corporation, earnings in the cooperative are issued to stockholders based on their use of the cooperative rather

than on the amount of capital provided, and in nearly all cases the equity cannot be publicly traded. (b) The decision to invest was not solely based on generating a return on investment. For FCSA borrowers it was also coupled with the right to use the cooperative. The FCSA borrower *had* to be a stockholder in order to use the cooperative. (c) The equity in FCSA is purchased and redeemed at face value. Those who redeemed their stock after paying off their loan received only face value. This is radically different than what happens in an IOC. For the IOC, the level of unallocated retained earnings is usually reflected in the share value at the time it is purchased and at the time the share is sold.

When the current shareholders of FCSA bought their shares in the cooperative, the price they paid for the share did not reflect the capitalized value of the unallocated retained earnings. But if they sold or liquidated FCSA, they stood to divide the surplus and receive many times what they paid for their share.

So Who Owns the Capital Surplus?

The ambiguities that arise from the FCSA charter, its relationship to the other FCS banks, FCSA's own history, and its cooperative structure raise serious questions about who has legitimate (if not strictly legal) claims to the unallocated surplus reserves. A case could be made that several different groups and institutions could lay claim to at least a portion of the reserves. At least five such potential claimants could be identified:

- the current stockholders;
- the past stockholders who contributed to building the surplus;
- the successor FCS Ag Credit Association chartered to replace FCSA;
- the other Farm Credit System banks that provided assistance; and
- the government who provided the initial risk capital, special tax treatment, and recapitalized it in the 1980s.

The unallocated surplus in FCSA represents an endowment generated by past members for current (and future members) to use in capitalizing the lending cooperative. It was not generated exclusively by the current stockholders. Nor was the investment cost for current stockholders adjusted to reflect the level of unallocated retained earnings when they entered. Finally, the decision of individual stockholders to buy or sell was based on their need for credit rather than the level of unallocated retained earnings.

So who owns the surplus? Is it those past member stockholders who generated it by forgoing the option to receive a patronage refund on their interest bill? Is it the current member stockholders who now own and use the cooperative and will make the decision of whether or not to liquidate? Or is it possibly the future member stockholders who will want to join a well-capitalized Agricultural Credit Association? Stated differently, should the surplus be taken into the new Agricultural Credit Association that will be chartered to replace FCSA after it has been sold?

One possible answer is it belongs to those who generated the surplus over the past 20 years or so. It could be argued that those who owned and used FCSA during the critical period when FCSA was being recapitalized in the mid-1980s have the most legitimate claims. However, 20 years is a long time, and there are numerous difficulties in looking back that far. More than a few of those members are now deceased and their estates long ago settled.

Another possible answer is that those who have the most legitimate claims are the members who used the cooperative over a more recent (albeit still somewhat arbitrary) period when much of the retained earnings were generated. This has in some cases been formalized in cooperative statutes. Some state statutes (including Iowa, which is part of the FCSA market territory) designate that unallocated retained earnings must be distributed to current and former patrons based on the amount of unredeemed allocated equity they hold.

This kind of provision allows those who did business with the cooperative in the past, and contributed to building the surplus, to share in the distribution—even though some of them may no longer be active members. But in the case of FSCA, virtually all the earnings were put into surplus, and there is no allocated equity to use as a basis for determining how much each patron should receive. It would be necessary to pick some arbitrary period, look back, and calculate what the claims *would have been* if the equity actually had been allocated rather than put into surplus.

A third possible answer is that people who are currently owners and users have the most legitimate claim. They, after all, have undertaken the current fiduciary responsibility for the assets of FCSA, and they are the ones who have the voting rights. But, should the entire endowment be distributed to them simply because they happen to be members at this time? Was it really the intent of prior members (who built the surplus) to create a windfall for the voting members at some future moment in time?

A fourth possible answer is that the surplus is truly an endowment from past and current users for use in capitalizing a user-owned and -controlled cooperative for current and future farm borrowers. Upon sales of liquidation, should at least the majority of the endowment be kept and used toward capitalizing the new FCS Agricultural Credit Association that will have to be chartered and formed to serve the region? Could it be argued that those who built the surplus did it for that purpose rather than for the purpose of distributing it in its entirety as a windfall gain to current members?

Some would argue that the remaining parts of the system should get at least some of the surplus. All parts of the system assume "joint and several liability" for the other parts. If FCSA benefited from this assurance during the period when the surplus was built, does it not have a legitimate claim to at least some of the surplus? To a degree, the exit fee levied by the FCS does this, but questions can be raised about whether the fee is more or less than adequate to accomplish this.

Finally, some might argue that the US taxpayers have a legitimate claim to at least part of the unallocated reserves. The portion of the unallocated surplus that was sourced from land loans was never taxed. Furthermore, the system was conceived and started by the US government, and the majority of the capitalization through the most risky periods of its life came from the government. Some might argue that the taxpayers should have a claim.

Technically, the government assistance was structured as a loan, and it has been repaid in full. But most would agree that at least part of these funds played the role typically played by equity capital rather than the role typically played by debt capital. Is it reasonable that some of the unallocated reserves should be returned to the taxpayers as a return for taking on the role of entrepreneur and venture capitalist during start-up and the most perilous times FCSA has survived? If they are not compensated for playing these roles, should the taxpayers at least be compensated for the untaxed earnings sourced from FCSA's land lending activities?

Going Forward from Here

The buyout process was halted before it went to stockholders for a vote. We will never know how it would have played out. It is still interesting and perhaps helpful to consider who would have had the most just or legitimate claim. Would it have been only the narrow legal claims of current stockholders that counted in the end? Would it have simply been decided on the provisions in FCSA articles of incorporation and provisions in the FCSA bylaws along with board resolutions? Or have other stakeholders weighed in through the courts? Or would Congress perhaps have weighed in through legislation? The answers will never be known. It may be useful to consider the other stakeholder claims and evaluate their merit as a measuring rod for future actions. The FCSA experience implies a need for some changes going forward.

Greater effort needs to be made in differentiating the role of the board of directors in a cooperative and from the role of an IOC board. Although there are many similarities, and both IOC and Cooperative boards serve the same general function, the cooperative board has a much more complex task. In many cases, this is not well understood by cooperative boards.

IOC commercial bank boards have a fiduciary responsibility to protect stockholders' investments and maximize return on stockholders' investments. Regulators and insuring agencies such as the Federal Reserve, Federal Deposit Insurance Corporation (FDIC), and the Office of Comptroller of the Currency (OCC) in the Treasury Department place added fiduciary responsibilities on IOC commercial banks to protect customers.

Cooperative boards have a similar responsibility to protect the stockholders' investments and to earn a return on the stockholder's investment. Regulators and insurers, such as Farm Credit Administration and FCS Insurance Corporation, place added fiduciary responsibilities on cooperatively owned Agricultural Credit Associations such as FCSA to protect their borrowers in much the same way that the FDIC and OCC do for IOC commercial banks.

However, the fiduciary responsibility of the cooperative board to its congruent set of owner-users goes beyond that of the IOC board's responsibility to its noncongruent sets of shareholders and customers. The fact that the owners and the users are congruent does not exempt the cooperative board from earning a return on it invested capital. It does, however, place constraints on what the board can do *in pursuit of* returns on invested capital. Although the cooperative board is pursuing return on its capital, it must also ensure that the stockholder's investment is applied in a way that benefits stockholders *as users as well as investors.* Balancing the two is sometimes difficult, and it nearly always forecloses some of the options for generating a return on capital that are readily available to the IOC.

Greater efforts also need to be made to assist cooperative management and boards in understanding the differences in the mechanics that exist between benefit flows from IOCs and benefit flows from cooperatives. Actions that are fair to IOC shareholders will not always be fair for cooperative shareholders. Because cooperative stock and allocated equity is redeemed at face value, the fiduciary responsibility of cooperative directors could extend well beyond the contemporaneous set of voting shareholders in many cases. Simply copying IOC behavior will not always lead to a similar result in a cooperative. It is important for cooperative boards to understand this and communicate it effectively to hired management—especially when the prior experience base of that management has not been in the cooperative sector.

The incentives created by the tax exemption for Federal Land Bank earnings also need to be carefully evaluated. If the exemption applies only when earnings are held as unallocated reserves, it may create future problems similar to the ones encountered at FCSA. One possible solution would be to permit earnings to be allocated as nonqualified patronage distributions by the Agricultural Credit Association with no taxation until the allocation is actually redeemed to the borrower in cash. This would, in essence, leave the Agricultural Credit Association in the same position it currently holds. However, it would identify the member whose business generated the earnings and create an explicit future claim for that member—even if he or she had repaid a loan and exited. By creating a specific property right, this action would eliminate some of the exiting incentive for current stockholders to sell or liquidate as a means of dividing the unallocated surplus.

Finally, there needs to be a clearer specification of what individual system banks and associations have the authority to sell unilaterally. Title to real estate, vehicles, and fixtures are probably not in question. It seems clear that the FCS charter for a regional bank cannot be sold to an entity outside FCS. However, it is less clear whether the loans, customer lists, customer history, and other customer information are the exclusive property of the Agricultural Credit Association or the FCS. The procedures for exiting the system, and the property rights of the stakeholder groups, need to be much more clearly defined before the next sale of an FCS entity is attempted.

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The New Basel Capital Accord: Implications for US Agricultural Lenders

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The first Basel Capital Accord, the current system used for evaluating capital adequacy, was implemented in 1988 by the Basel Committee on Banking Supervision. The accord's objectives are to ensure the soundness and stability of the banking system, to achieve greater uniformity in capital standards across countries, and to provide equitable standards promoting bank competition. The current accord, also known as Basel I, sets the minimum regulatory capital for banks at 8% of the risk-weighted value of their assets. The guidelines proposed in Basel I were accepted by more than 100 countries. Basel I, however, turned out to be too simplistic to address the needs of the banking system in a changing environment of new technology and increased globalization and competition.

The Basel Committee on Banking Supervision has been developing a new accord, Basel II, to address the shortcomings of the current accord and to reflect the new developments in the assessment and management of risk. The Committee has developed several proposals for revising the existing accord and has conducted four quantitative impact studies related to these proposals (posted at the Bank for International Settlements' website, http://www.bis.org). Basel II is expected to be implemented by the end of 2006.

Overview of Basel II

Basel II rests on three mutually reinforcing pillars: (1) minimum capital requirements, (2) supervisory review, and (3) market discipline.

Pillar 1 outlines the calculation procedures of the capital requirements for banking organizations. Under Basel I, the minimum required capital ratio (set at 8%) is calculated as the regulatory capital divided by the risk exposure (measured by the risk-weighted assets). The difference under Basel II will be that the risk exposure will be evaluated as the total of the credit risk, market risk, and operational risk exposure of the bank, where more refined measures will be incorporated to calculate credit and operational risk.

Pillar 2 addresses the supervisory review process in ensuring sound capital management and comprehensive assessment of the risks and the capital adequacy of the banking institutions. This pillar seeks to increase the transparency and accountability of the banking system and to a large extent has already been incorporated in the United States.

Pillar 3 aims at improving market discipline by requiring banks to publicly disclose key information regarding their risk exposures and capital positions. Because Basel II gives banking institutions greater discretion in calculating their own capital requirements, it is anticipated that the disclosure statements will allow market participants to better assess the safety and soundness of the banking environment and thus exert stronger market discipline.

Basel II will include three options for measuring credit risk and another three options for measuring operational risk. The options for calculating credit risk are the *standardized approach* and two internal ratings-based approaches—the *foundation approach* and the *advanced approach*. The standardized approach is similar to the approach currently used for categorizing bank assets according to their risk and then weighing them using fixed weights. Under the internal ratings-based approaches, banks will evaluate key elements of credit risk: the probability of default, the loss given default, the exposure at default, and the remaining maturity of the exposure. Under the foundation approach, banks will estimate the probability of default of their loans, but the regulators will provide the other measures. Finally, under the advanced approach, banks will calculate all key elements of their credit risk exposures.

Likewise, there are three options for calculating operational risk: the *basic indicator approach*, the *standardized approach*, and the *advanced measurement approach*, with varying degrees of bank-provided versus regulator-provided inputs in the calculations of operational risk. As incentives for adopting the more advanced approaches for credit and operational risks, banks are anticipated to experience lower capital requirements.

Basel II Implementation in the United States

The US banking agencies (the Board of Governors of the Federal Reserve System, the Office of Comptroller of the Currency, the Federal Deposit Insurance Corporation, and the Office of Thrift Supervision) have already initiated the process for implementing Basel II. These agencies have recommended that the largest, most complex banks (with total assets of at least $250 billion or total foreign exposure of at least $10 billion) be required to implement the advanced measurement approaches of Basel II to assess credit and operational risks (Federal Reserve Board, 2003). Currently, ten banks meet these size requirements, and another ten banks have chosen to adopt the advanced approaches of Basel II. These twenty banks account for 99% of the foreign assets and more than 65% of the total assets held by US lenders. It is expected that over time other large banking and nonbank institutions will also choose to adopt advanced capital calculations.

The banking agencies have identified several areas of concern regarding the implementation of Basel II in the United States (Federal Reserve Board, 2003). The first concern is the equitability of a bifurcated scheme whereby large banks will be required to adopt Basel II while small banks will continue to operate under the existing Basel I. Small banks that remain under the current capital regime would generally have higher capital requirements, which would also be less sensitive to risk. Thus, these small banks would be at a competitive disadvantage. However, the banking agencies predict that Basel II may not have a large impact on capital holdings, because many small banks currently choose to hold capital in excess of the required minimum. The second concern is that the adoption of advanced approaches for measuring credit and operational risk may be too expensive, especially for smaller banks. The adoption of these approaches, of course, will not reduce losses but rather will better align capital requirements and losses. However, even if not required by Basel II, these approaches may be needed in order to compete effectively in the existing banking environment. The third concern is the way operational risk is treated, either as an explicit capital charge under pillar 1 or on a case-by-case basis under pillar 2.

Basel II and Agriculture

The New Basel Accord does not include any special treatment for agricultural lending. Basel II implies that large agricultural loans would be treated as corporate loans and small agricultural loans as retail loans. The regulators, however, need to take into account the particular characteristics of farm loans when setting capital charges for organizations involved in agricultural lending (Barry, 2001). Farm businesses are characterized by cyclical performance, seasonal production patterns, high capital intensity, leasing of farmland, participation in government programs, and annual payments of real estate loans. Because of these characteristics, losses in agricultural lending may not be frequent, but could be large due to high correlations among farm performances. At the same time, high capital intensity, especially involving farmland, offers relatively strong collateral positions, thus mitigating the severity of default when default problems do arise.

Katchova and Barry (2005) developed models for quantifying credit risk in agricultural lending. They calculated probabilities of default, loss given default, portfolio risk, and correlations using data from farm businesses. The authors showed that the calculated expected and unexpected losses under Basel II critically depend on the credit quality of the loan portfolio and the correlations among farm performances. These analyses of portfolio credit risk could be further enhanced if segmented by primary commodity and geographical location. Agricultural lenders could adopt similar models to quantify credit risk, a key component in the calibration of minimum capital requirements.

Farm Lending Institutions

Among agricultural lending institutions, commercial banks and the Farm Credit System are the largest providers of credit. Commercial banking in the United States has long been characterized by a large number of smaller community banks, many of which are heavily dependent on agriculture. Deregulation and consolidations are reducing the number of banks, although federal data for 2004 indicate that approximately 2,600 "agricultural" banks still provide more than 50% of bank loans to agriculture. However, the share of agricultural loans held by banks with

more than $500 million of assets has been growing rapidly. Such larger banks likely have the capabilities to move toward the adoption of the internal ratings-based approaches to risk assessment and capital management, whereas smaller banks serving different market niches will probably remain under the current standardized approach.

The Farm Credit System (FCS) is a federated organization of five mostly wholesale banks lending to 90–100 farmer-owned lending associations, which in turn provide credit and related services to agricultural borrowers. Autonomy of individual units of the FCS has been high, although recent consolidations, business practices, product and service offerings, risk assessment, and capital management have become more uniform over time. Uniformity helps the FCS to present a more understandable, coherent structure to the national and international financial markets. Investors in these markets, in turn, purchase securities issued by the FCS banks, thus providing the loan funds for agricultural borrowers.

In general, the FCS has sufficient size, specialization, and expertise to move toward adopting the internal ratings-based approaches to capital management. Initial steps have involved the design of data systems needed to compile and store loan-level loss data over time and the development of dual rating systems for categorizing the frequency and severity of default by borrowers. The goals are to achieve greater precision and granularity in risk classifications. These steps will lead to the formulation of economic capital models that combine measures of credit, market, and operational risks to determine capital adequacy, risk-adjusted returns on capital, and risk-adjusted pricing of loans and services.

Essential to the adoption of more advanced internal ratings-based approaches is the acceptance by federal regulatory agencies—the Farm Credit Administration in the case of the FCS and the Fed, Comptroller of the Currency, and the FDIC for commercial banks. Basel II requires a formal approval process for the measurement, modeling, and management of risk-based capital. Thorough documentation, rigorous testing, complete validation, and ongoing use are key elements of gaining and maintaining approval.

In Conclusion

As occurred under Basel I, the new spectrum of choices for capital management under Basel II will be widely reflected throughout the financial system. The scope and depth of Basel II have followed the "best practices" of the top tier of banks worldwide. Such successful practices typically permeate a financial system with modifications to fit institutional size and resource base. Vendors offering fee-based capital services, further consolidations among financial institutions, data sharing arrangements, and experience gained by the industry and its regulators will hasten the permeation process and enable community banks—as well as the internationally active ones—to utilize internal ratings-based approaches and economic capital concepts in their risk management.

For More Information

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Agri-lending Vision 2020: When Vision and Reality Meet

David M. Kohl and Alicia M. Morris

Envision the future of agricultural lending as it evolves over the next 15 years. By recognizing current trends and looking toward the future, individuals can strategically position their businesses and people to proactively mitigate risk in adverse events and capitalize on opportunities. This paper will first examine the realities of the agricultural lending marketplace. Second, we will analyze the future structure of agricultural products, services, and credit risk assessments demanded, and then conclude with strategic planning implications for financial institutions serving agricultural producers.

The Landscape of Agriculture

First, examination of the landscape of agriculture will set the stage. Agriculture will continue to consolidate mainstream production in North America and throughout the globe driven by consumer wants and needs and the food retail sector. Agri-lenders will be providing financial products and services to a smaller group of producers that will generate a larger share of revenue. This segment will be faced with margin compression created by global competition. On the other hand, a large number of agriculturalists will be involved in agriculture that will stretch the paradigms of any planner to think outside the box. For example, financing hunting lodges, bed and breakfasts, or multientity businesses (such as grain farmers who own a car wash or computer consulting firm to fully employ resources) will be common.

As a large share of production consolidates to approximately one million producers worldwide and 150,000 producers in the United States, natural and man-made risk potential will increase. Although large farms tend to manage risk better, a breakout of pandemic flu or a natural disaster in an agricultural cluster area can be devastating to a large share of the portfolio. This will create an environment of extreme earnings and deficits for commercial agribusiness producers, which will test portfolios and management strategies of the smallest to the largest institutions.

Direct government support for agriculture will decline and shift toward environmental and natural resource management in many developed countries over the next 15 years. With more women and minorities operating farms, a lending institution that fails to have a female or minority strategy will be behind the curve in meeting a very important emerging agricultural market.

In a time-compressed environment, producers will differentiate themselves from competitors through information and people, rather than production and capital as was common in the past. In the workplace, lifestyle issues, like time management and balancing family and social activities, will drive the business model rather than the business model driving the lifestyle. Leaders' failure to recognize this balance imperils long-term sustainability of a customer or employee of the institution or business.

Finally, the first of many shots were fired in the summer of 2004 when Rabobank made an offer on a Farm Credit Services entity. This was a wake-up call to a complacent agri-lending environment, stagnant through government supports and high land values. Agri-lending will be required to evolve into a more fluid and competitive global industry that can quickly but objectively meet a changing environment.

Agricultural Structure

The 2004 Family Farm Report, based upon data from the annual Agricultural Resource Management Survey (ARMS), uses the ERS typology on farm size and organization to define the current state of agriculture. As agricultural industry structure progresses toward the year 2020, subsequent hypotheses suggest that it is evolving into seven unique business and lifestyle models yet to be defined

in the research literature or captured in the databases.

Super Commodity/Agribusiness

Model one will be the *super commodity/agribusiness* operation. Anecdotal evidence suggests this model will generate $1.5 million of revenue on average in today's dollars, but will generate twice this amount on the East and West coasts outside the traditional government payment zones. These operations will pocket in 35 to 40 regions in the United States and Canada in prime natural resource base areas for land and water, with minimal public disruption. Control, rather than ownership, of assets will require lenders to revolutionize underwriting standards and alter marketing, operations, products, services, and delivery systems.

These entities will extend to multiple counties, states, provinces, countries, and (to a small extent) hemispheres. They will be comprised of multiple entities, some not defined as agriculture, to provide balance and diversity in their businesses. This model will operate for the most part as a multiple family unit or investor under the guise of corporations and limited liability corporations to foster business formality. This segment will stretch the parameters of government-based lending entities that are historically slow to react to change, making them an excellent target for an international lending institution.

Super commodity/agribusiness operations will be geographically and publicly challenged with site selection and location. For example, environmental, air quality, and animal welfare issues will be numerous and constant. Those that finance crop operations will find land use, resource management, and water issues a high portfolio risk factor. This customer, while dealing with large input suppliers on a regional, national, or international basis, will not always be the most profitable relationship for the institution despite large volumes.

Moving toward 2020, these entities will utilize very sophisticated information systems, such as global positioning systems and autotrack equipment, allowing them to link production to the bottom line profits. Profits on food and fiber products will ultimately be driven by the demands of the consuming public and retailers.

Needs for this model from the agri-lender include growth and strategic management, cash and working capital programs, venture capital, equity management, coaching services, execution of strategies and facilitation of acquisitions, mergers, and alliances as delivered by a lender management team that handles no more than 40–50 accounts. These specialists must be adept in the awareness of macro issues, but be able to drill down on specific issues of the entity as a solutions-based provider.

The five C's of credit will still apply from the credit side. The challenge to the credit analyst will be to develop underwriting standards on soft asset financing, such as human resources, business best management practices, execution strategies, and metrics, that can be quantified and tested in a volatile marketplace.

Traditional Family Farm

The second model is known as the *traditional family farm*, generating revenue in the $50,000–600,000 range, in today's dollars. Although this range is large, it encompasses a large number of farms. Global economics will produce dramatic change in this segment in the future. The Norman Rockwell version of the farm or ranch will evolve by those who have the passion to carry on the farm family legacy. This model will be particularly important to agri-lenders, because these operations have traditionally been the most profitable customers.

Vision 2020 finds that the number of traditional family farms will be driven by dynamics of rural communities, lifestyle issues, economies of scale, and technology. These operations, particularly crop and less intensive livestock farms, while large by today's standards, could be operated on a part-time basis, bringing a whole new mode of ownership and management to the picture.

Ten percent of current traditional family farms will grow to larger entities generating $600,000 and $1.5 million in revenue. Thirty percent will scale down, becoming lifestyle farms and ranches; another 30% will exit the industry because of development or recreational use opportunities, leaving approximately 30% remaining as traditional family farms. To any strategic planner, realizing the rapid reduction of government supports, the introduction of new technology, information base, or regulatory standards could radically adjust these numbers in a five-year period, similar to what occurred in western Canada, South Africa, Australia, and New Zealand.

The visionary lender will find new methods to make this customer segment transition profitable. The land-based operations will be purchased by extended family members or outside investors for recreational, housing, water, and natural resource development. Farm management services and reverse mortgages to pump liquidity into a cash-starved older age rural population base could be opportunities knocking on the door.

Today's credit standards will still work quite well, but marketing financial products and services will have to be adjusted using enhanced delivery systems involving alliances with realtors and accountants to be able to gain exposure to absentee property owners. Youth that leave areas to seek higher incomes and exciting lifestyles may boomerang back to these areas in later stages of life to seek balance in quality-of-life issues.

Vertically Integrated Operation

Vertically integrated agricultural models, such as hogs and poultry, which have been the bread and butter of the agricultural finance portfolio in some areas late in the last century, will not be as large of a growth segment in the portfolio of the future. Large multinational agribusiness firms will find it more economical and environmentally friendly to move a portion of this business offshore. These businesses will still be popular with the younger segment who are technology-oriented and seek a stable earning base as an entrance into agriculture; however, more will seek vertically integrated opportunities on a part-time basis.

Contract Agriculture

Contract agriculture will be a growth market with traditional commodities such as vegetables, beef, milk, and tobacco, but will also meet the needs of a more sophisticated affluent consumer. Strategic alliances with agribusinesses, medical, and technology companies will stretch the paradigms of what is considered farming and life sciences. This type of operation will have the image of a white collar or scientist's family farm. Contracts, patents, and copyrights will be the collateral and conditions that will underwrite these loans and financial services. This segment will be very attractive to large national and international financial institutions and equity capital entities. These entities will be pocketed and isolated in rural areas to protect their products and services. The contract agriculture segment will frustrate planners, regulators, and government policy makers, who will struggle to develop policies and standards that are flexible and expedient enough to meet technology and cutting-edge initiatives driven by the affluent consumer.

Lifestyle Segment

The *lifestyle segment*, which should not be referred to condescendingly as "hobby farmers" or "sundowners," is the largest segment of producers by number and will continue to represent a dynamic marketplace. Ninety percent of these businesses will locate within reasonable driving distances of rural affluent zones, which have the following characteristics: good schools, hospitals, health care systems, infrastructure, technology, natural amenities, reasonable cost of areas to live, and convenient shopping and social opportunities.

Some efficient agri-lenders already handle 600–1,000 lifestyle loans. Streamlined, simple underwriting standards will be the norm, with the deeper analysis being concentrated on the layering of risk, that being industry, community, and economy risk. Twenty-four-hour access to loan services, through kiosks, will not be an option but a requirement. Again, developing alliances, such as with realtors, and being able to target specific areas and match the products and services to the customer will be critical. With over 50% of Americans desiring to live on 20 acres in the country (according to *USA Today*), this segment will be dynamic and profitable to those who mesh credit, marketing, and operations into a streamlined mode of delivery.

Value-added Agriculture

The *value-added model* is alive and well, particularly outside the traditional government payment zones with agricultural enterprises that encourage and reward outside-the-box entrepreneurial thinking. These businesses exploit a location, production, servicing, technology, branding, or systems aspect to give them the differential advantage. Markets will be 80% domestic and 20% international, with a focus on natural and organic foods and emerging energy and natural resource products, such as ethanol, biodiesel, wind power, water, and mineral harvesting aspects.

Special units or teams will evolve to handle these entrepreneurial entities across institutions and even with competitors. This agricultural segment is in dire need of new credit underwriting standards that capture the risk and components of a successful entity. Needs of these enterprises from lenders include business planning, strategy development, growth management, coaching, working capital and cash management, and networking across markets and sectors. Profits and sustainability, along with risk, are high as this group takes on the characteristics of entrepreneurial small businesses.

Agri-entertainer

Finally, the fastest growing model will be coined as the *agri-entertainer*. Financing of lodges for hunting, pumpkin festivals, bed and breakfasts, the urban farmer's market, horse trails, or all-terrain vehicle recreational sites will become more commonplace. This model can be easily integrated into any of the previously mentioned entities as a side venture. Lifestyle, value-added, and

the agri-entertainer models will attract a new set of youth and adults bringing needed energy to North American agriculture as they seek to fulfill their dreams.

The Future of Agri-lending

The new models just discussed will be better defined by their consumer-driven attributes than by demographics. This in turn will change the landscape of agri-lending institutions. Agricultural community and commercial banks that currently number approximately 2,500 will most likely decline to near 1,000 in the future. Small community or family-owned banks will continue to serve the traditional, lifestyle, and new emerging segments. Their strategic advantage will be investors and management teams that do not focus on a maximization of next quarter's results to satisfy stockholders, as the large institutions tend to do. Quick decision-making and fast, friendly, human-oriented service with baseline technology will be critical to success. Government guarantees and special program initiatives, such as government liquidity savings accounts and reverse mortgages, may provide the differential advantage. Being located near rural affluent zones may be critical for the attraction of human resources to provide quality service.

The Farm Credit System, which has nearly 100 associations and five district banks nationwide, will most likely consolidate down to 25–30 associations or alliance entities with other institutions. Government Sponsored Enterprise (GSE) status may become a concept of the past, if the agricultural environment requires the system to expand products, services, and authorities to meet a dynamic marketplace. Farm Credit will find that the "better is better" strategy rather than the "bigger is better" strategy is very applicable in a cooperative system that operates 364 days a year as a business and one day as a cooperative.

Farm Credit's strategic advantage as an efficient deliverer of credit must evolve to become a financial solutions-based provider. They must continue to brand the image of not being a fair-weather lender regardless of government entity status and having a well-trained educated staff and customer.

The Farm Service Agency and Farmer Mac will be critical in either guaranteed lending or pooling of risk, particularly as agriculture consolidates. This will be necessary as commodities such as soybeans and corn find increased competitive pressure from South America, wheat gets competition from the Baltic States, and cotton and apples move to China, shutting windows of opportunity and increasing volatility. These programs will be critical in providing stability and opportunities for young producers in the agricultural financial sector as well as assisting in farm business transition.

Insurance companies and particularly nontraditional lenders and input supply firms will continue to compete as niche and stealthy competition, exploiting the vulnerabilities of the larger institutions. They will continue to build on strategic advantages of streamlined decision-making and being a total agribusiness solutions provider to the segments that they target. Some agribusiness firms may form global alliances with international lenders. This will be more common with the larger producer and agribusiness segments that are perceived to be sustainable in the global marketplace without subsidies and supports.

Implications

The following are items that any strategic planner needs on the agenda to help envision and plan for the future. The objective is to provoke thought, which may provide the differential edge for success in the agribusiness and agri-lending industry of the future.

- Data systems must evolve to facilitate moving raw data to information, leading to knowledge that is shared throughout the organization and with customers. This will, in turn, help anticipate opportunities and provide solutions that transform vision to reality. Although leading agribusiness firms are currently doing this, the traditional lender of today has yet to see the advantages, particularly those of a portfolio made up of the seven business models outlined above.
- Leadership and boards of directors of institutions and agribusinesses must be revamped to reflect the realities of the marketplace. Having representation of women and minorities, as well as board accountability, education, and evaluation, must be a requirement. Businesses will seek higher levels of expertise in line with the portfolio concentration of segments represented by the seven business models. The practice of appointing versus electing directors, particularly in cooperatives, will be re-examined to help seek this balance.
- Education of employees and customers must be a high priority even in times of tight budgets. A concept called "edu-marketing" is an effective differentiation strategy by making your customer more knowledgeable and sustainable through educational pro-

grams, such as young, beginning, and executive producer schools sponsored by lenders. Smaller banks and cooperatives will join in alliances with agribusinesses and even competitors to provide these opportunities. Programs for both customers and employees that deal with medical, pension, retirement, and transition planning will be a high priority to maintain a sustainable customer and employee base, as Medicare and Social Security face more challenges. The concept of blended education, encompassing Internet-based training guided by mentor experience and oversight, will be critical to combine the components of high tech and high touch. Internship and cooperative education programs that are organized nationally or internationally can provide an opportunity for red-shirting of prospective employees—a popular concept in sports—which is similar to the employee and employer having an extended interview. These concepts will challenge banks and lending cooperatives of small-town America but will also be a must for both customers and employees in a global environment.

- CEOs, leaders, and management of agri-lending institutions must operate with a long-term mentality rather than a short-term maximization strategy. Agriculture, particularly in the United States, is an industry that does not adjust readily to large paradigm shifts; those that do not recognize it will be doomed to failure.
- Historically, technology has been the differentiator in the competitive marketplace in lending. In the future, as the technology curve flattens, the differential advantage will come through a humanization strategy—combining high tech with a balance of high touch. The challenge will be to train younger employees who are technology-oriented, but challenged when it comes to emotional intelligence, involving working with people and critical thinking skills, which are both very important for success. Lenders in rural areas that don't have the quality of life attributes desired will struggle to find new employees.
- Products and services must be "customerized." That is, a customer could have access to a menu of choices inside and outside the organization through strategic alliances to be customized to meet their needs. This will require the 2020 agri-lender to play the roles of a teacher, coach, and facilitator.

Agriculture in 2020 will be an industry in which one size does not fit all. Being fast, fluid, and flexible, and realizing the customer drives change and the business model, will be important. The competitive agri-lender must think globally—beyond 20 miles of their home base—but act locally. Understanding people, philosophies, and consumer dynamics, while demonstrating a passion for the agricultural industry, is the recipe for making the vision become reality.

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