A New Era In Farm Lending: Who Will Prosper?

By Alan Barkema, Mark Drabenstott, and Landell Froerer

American agriculture is embarking on a strong recovery after six years of deep recession. The recovery, coming on the heels of one of the biggest financial restructurings in agriculture's history, marks the beginning of a new era for the industry and for lenders to agriculture.

The Agricultural Credit Act of 1987, passed late last year, also marks the beginning of a new era in farm lending. The law was a help to agriculture's largest and most beleaguered commercial lender, the Farm Credit System (FCS). But the law does much more than provide federal assistance to the FCS. Among its major provisions, the act enables the creation of a new secondary market for farm and rural housing mortgages. This new market could revolutionize farm lending by changing the competitive balance among new and existing farm lenders.

These two developments, a watershed in the farm economy and landmark legislation, mark a new era in farm lending—an era that means new challenges for farm lenders. This article addresses two questions: How have agriculture's financial restructuring and the new legislation changed the farm lending market? And, which lenders will win and which will lose in the new lending environment?

The analysis suggests that farm borrowers are settling into two groups: large commercial farmers who will be difficult to distinguish from other commercial borrowers, and small-scale farmers who will participate in credit markets much as consumer borrowers do. The article further concludes that traditional small agricultural banks will lose market share, both large agricultural and large nonagricultural banks will gain market share, and the Farm Credit System will at best maintain market share.

The analysis proceeds in three steps. The first section sketches agriculture's dramatic financial turnaround and reviews trends in farm lending for both borrowers and lenders. The second section describes the new legislative environment, focusing on the Agricultural Credit Act of 1987. The third section considers which lenders are likely to gain in the new lending environment and which are likely to lose. A final section summarizes the

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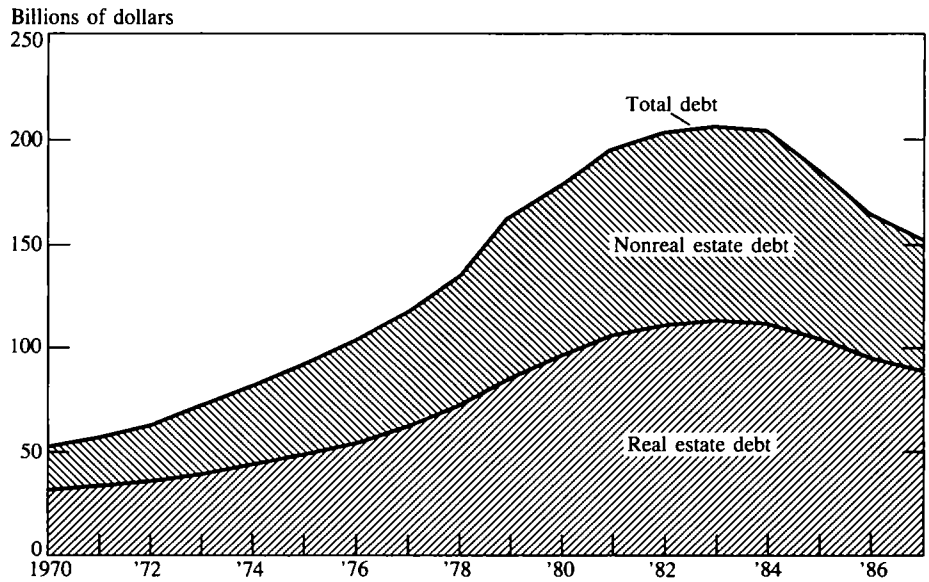
CHART 1
Total farm debt, excluding Commodity Credit Corporation loans



main conclusions.

Trends in farm lending

Agriculture's deep recession and its recent move toward recovery have significantly affected the structure of the farm lending market. Though structural change is not new to agriculture, the prosperous 1970s slowed the pace of structural change. The downturn of the 1980s revived these changes and then accelerated past trends. This section describes the signs of agriculture's recovery and the corresponding changes in the agricultural lending market, from both the borrower and lender sides. Trends in debt distribution among borrowers and lenders are considered, as are the performances of various lender groups.

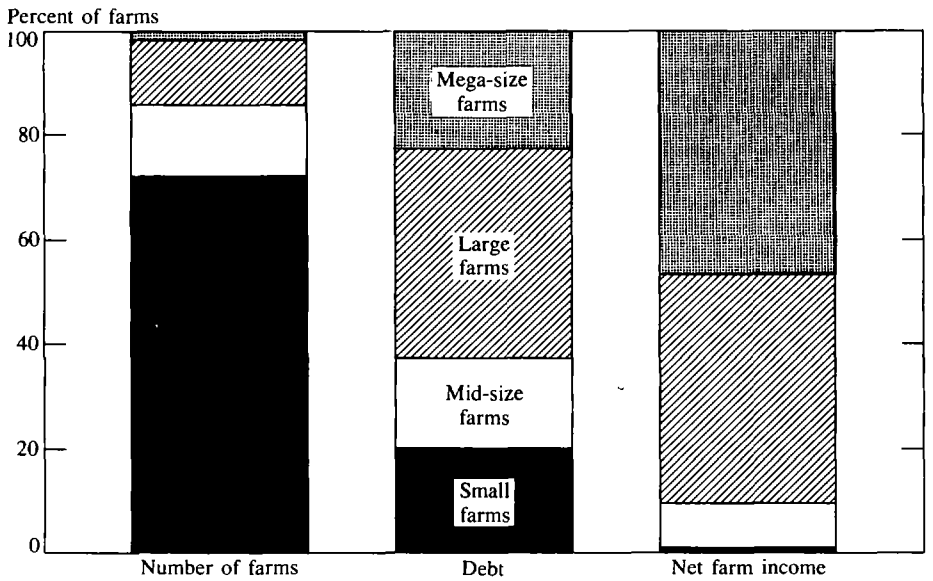
Agriculture's recovery

Telltale signs of agriculture's recovery are soaring farm income, recovering land values, and plummeting debt. Real farm income, clearly the driving force behind the recovery, has strengthened markedly in recent years. And large farm income, in turn, has contributed to a turnaround in farmland values. Land values in the Tenth Federal Reserve District increased an average of 5 percent in 1987, the first increase after a six-year decline of 55 percent.[1] The rise in land values has given both farm borrowers and farm lenders renewed confidence in handling the loan problems that remain.

Soaring farm incomes have also contributed to a sharp reduction in farm debt. Total farm debt

[1] Average farmland values increased 3 percent nationwide during the 12 months ended February 1, 1988, after falling a third during the preceding six years. See Economic Research Service, U.S. Department of Agriculture, "Agricultural Land Values and Markets: Outlook and Situation Report," 1988, and the *Financial Letter*, Federal Reserve Bank of Kansas City, February 1988.

CHART 2
Farm structure, 1986



increased nearly fourfold between 1970 and 1983, when it peaked at about $200 billion (Chart 1). Debt has since fallen more than a fourth to about $150 billion at the end of 1987. Roughly a third of the reduction in debt, about $15 billion, has probably been written off by farm lenders.[2] High farm incomes, cautious capital budgeting, and lender writedowns all contributed to the sharp decline in farm debt.

Trends in farm income, farm asset values, and farm debt all support the conclusion that agriculture is recovering from six years of recession. Much of the farm recovery so far has been underwritten by Washington, and agriculture has not yet determined how the recovery will be sustained when government supports are reduced. Though the future of agriculture's recovery is tenuous, the industry's recent performance has sharply reduced pressures on farm borrowers and lenders.

Farm borrower trends

As agriculture emerges from six years of recession and adjustment, a new assessment of long-term trends in farm borrowing is warranted. Who owns the farm debt? And how is the debt distributed among farm borrowers? To answer these questions, a look at the two-tiered nature of U.S. farming is useful. The 2.2 million farms in the United States can be grouped into two tiers: (1) small farms with less than $40,000 a year in sales and relying primarily on income from nonfarm sources and (2) commercial operations with annual sales of $40,000 or more. Commercial-size farms can be further divided into three groups: middle-size farms with sales between $40,000 and $99,000; large farms with sales between $100,000

[2] Lenders are likely to have written off about $20 billion of farm loans by 1989. See Gregory Hansen, "Potential Losses of Farmers and Lenders," ERS/USDA Bulletin No. 530, September 1987.

and $499,000; and mega-size farms with sales of $500,000 or more.

Nearly three-fourths of the farms are small farms (Chart 2). These farms have consistently poor earnings, receive a negligible share of the country's total net farm income, and rely almost entirely on off-farm income. These farms account for about a fifth of total farm debt, a small proportion relative to the number of small farms but a large proportion relative to the share of net farm income they receive.

About one-fourth of all farms, approximately 600,000, are commercial-size operations. These farms receive nearly all of the nation's net farm income and account for the remaining four-fifths of the farm debt. Net farm income and farm debt are even further concentrated in the larger two classes of commercial farms—the large and mega-size farms. These larger commercial farms, though only 14 percent of all farms, account for 90 percent of the net farm income and nearly two-thirds of the farm debt.

Therefore, these two tiers of farms—small part-time farms and large commercial farms—differ sharply in their financial positions and represent different markets for farm lenders. Small farms hold a significant share of the farm debt, but their debt is serviced primarily from off-farm income. Though there are fewer commercial-size farms, these large-scale operations are clearly the dominant force in U.S. agriculture, in terms of both earnings and debt. And, net farm income and debt are further concentrated in larger commercial farms. These large-scale operations clearly represent the heart of the agricultural lending market of the future.

Farm lender trends

Who has loaned to farmers and how have lender market shares changed? The answers differ for the farm real estate and non-real estate lending markets. Trends in market shares for the two types of debt are considered for five major lenders: commercial banks, the FCS, the Farmers Home Administration (FmHA), life insurance companies, and individuals and others. Also reviewed are trends in market share of farm debt among several diverse types of banks.

The dominant farm mortgage lenders since the early 1970s have been the FCS and individuals (Chart 3, Panel A).[3] The market share held by the FCS grew steadily to a peak of 44 percent in 1984 before slipping back to just under 40 percent in 1986. The increase in the FCS share came largely at the expense of individuals and insurance companies. The proportion of real estate debt held by individuals fell steadily to a fourth of the market in 1986, and the proportion held by insurance companies fell to 11 percent. With the slippage in the FCS domination of the market, the share held by commercial banks has increased to 13 percent.

The most prominent feature in the market for non-real estate debt was the abrupt increase in the FmHA share, from comparatively low levels in the mid-1970s to about a fourth of the market by 1986 (Chart 3, Panel B). The FmHA, the government's agricultural lender of last resort, saw its share of the market increase as agriculture's financial problems intensified and Congress underwrote a bigger role for government lending to agriculture. The share of the market held by commercial banks, long the dominant force in short-term lending to farmers, has recently increased to about 44 percent, after a long erosion that ended in 1981. Recent gains in market share by the FmHA and commercial banks have come mainly at the expense of the FCS.

An important trend is evident in the share of farm debt held by commercial banks (Table 1). Banks' share of the farm lending market is shift-

[3] Farm debt held by individuals and others includes farm real estate sales financed with contracts for deed and shorter-term credit extended by merchants, dealers, processors, and other individuals.

CHART 3

Market shares of farm debt

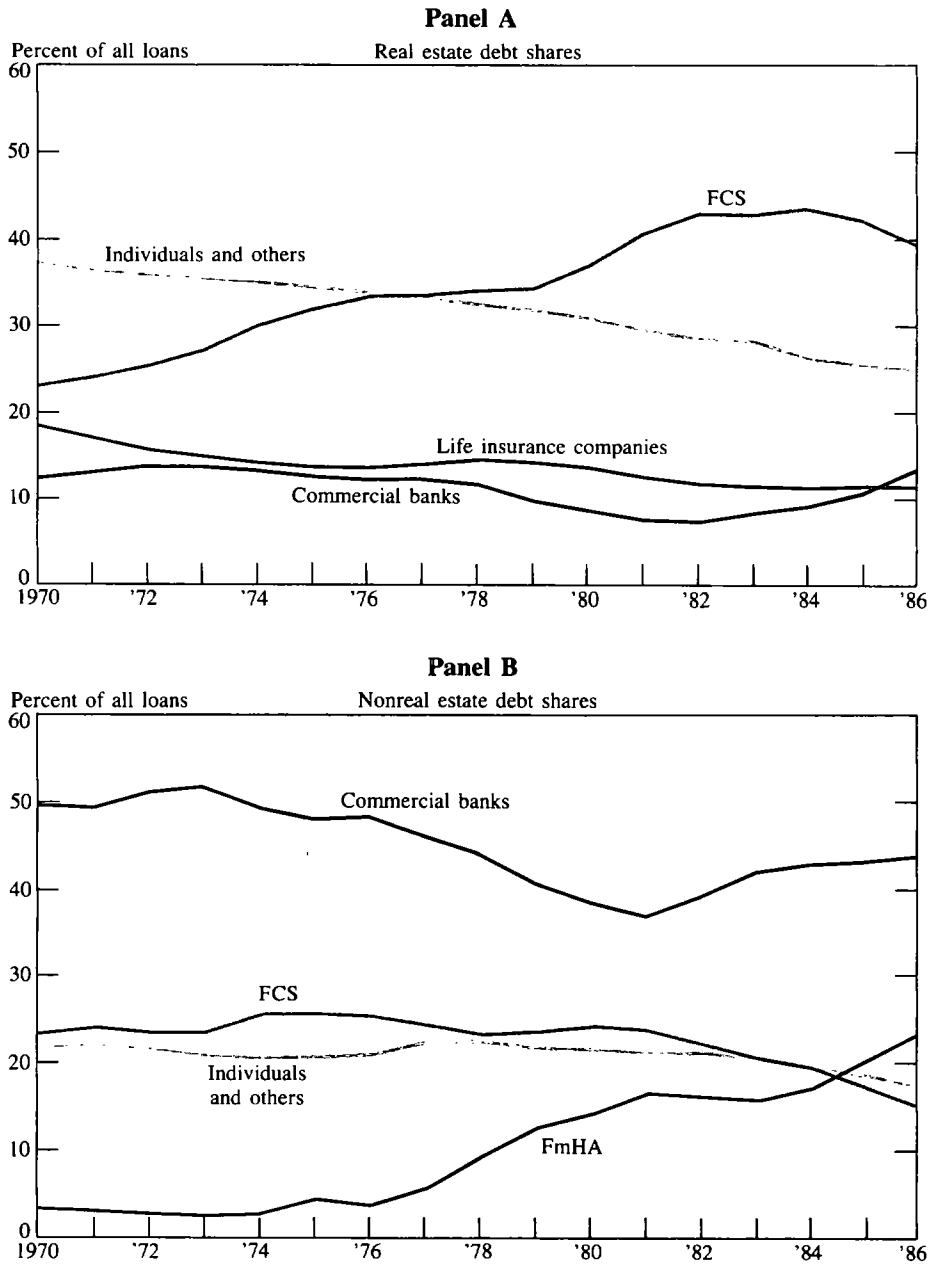


TABLE 1
U.S. commercial bank structure

	Total Assets (millions of dollars)*	Number of Banks		Market Share**			Agricultural Concentration***
		1978	1987	1978	1983	1987	1987
Agricultural Banks†		5,445	4,491	65.3	67.4	60.2	35.2
Small	<25	3,190	2,325	20.2	18.1	16.1	43.7
Medium‡	≥25	2,255	2,166	45.2	49.2	44.1	32.9
Nonagricultural Banks		8,904	9,047	34.7	32.6	39.8	1.4
Small	<25	2,268	2,090	2.0	1.7	1.5	3.4
Medium	25-249	5,809	5,941	18.4	15.9	17.2	2.6
Large	250-999	618	687	5.7	5.1	6.0	1.3
Mega‡	≥1,000	209	329	8.6	10.0	15.1	0.9

*In constant 1987 dollars
**Share of bank-held farm debt, percent
***Ratio of farm loans to total loans, percent
†Agricultural banks are insured commercial banks at which the ratio of total farm loans to total loans is above the unweighted average of such ratios at all banks at the end of the year (15.5 percent at the end of 1987).
‡Only eight medium-size agricultural banks had more than $250 million in assets in 1987. The mega-size nonagricultural bank class excludes the nation's 20 largest banks, each of which had more than $18 billion in assets at the end of 1987.

ing from specialized agricultural banks—banks with more than an average proportion of loans to farmers—to nonagricultural banks. Bank-held farm debt is becoming concentrated more in the hands of larger banks with diversified loan portfolios.

Medium-size agricultural banks hold the largest share of bank-held farm debt, a share that crested in 1983 before returning to the levels of the late 1970s. The market share held by small agricultural banks has slipped four percentage points during the last ten years as the number of these smaller specialized lenders shrunk more than a fourth.[4] Small, medium-size, and large nonagricultural banks have maintained nearly stable market shares. But the mega-size nonagricultural banks

[4] The recent national decline in the share of bank-held farm debt at agricultural banks, and especially at small agricultural banks, could be caused in part by a concentration of these banks in regions most severely affected by the farm recession. That is, the decline in farm loans at the disproportionately large number of agricultural banks in the Midwest may have been sufficient to lower the market share of farm debt held by agricultural banks nationally. Approximately 80 percent of all agricultural banks and 85 percent of small agricultural banks are located in the Seventh (Chicago), Ninth (Minneapolis), Tenth (Kansas City), and Eleventh (Dallas) Federal Reserve Districts of the Midwest, but only 60 percent of all banks are located in these districts. Continued recovery in the farm economy could enhance the competitiveness and farm-debt market share of agricultural banks relative to nonagricultural banks in these strongly agricultural regions. However, declining market share at small agricultural banks and rising market share at medium-size, more-diversified agricultural banks from 1978 to 1983, before the farm recession had deepened, suggest that a stronger farm economy would not be likely to reverse the decline in market share at small agricultural banks.

made large gains in market share. These banks now hold nearly as much of the farm loan market as small agricultural banks, even though farm lending is only a very small part, less than 1 percent, of the business done at these huge diversified banks.

Thus, the extraordinary financial adjustments in recent years have been accompanied by significant shifts in lender shares of the farm loan market. The government lender, the FmHA, has taken a much larger share of the market as a direct result of the agricultural recession. Severely weakened in the recession, the FCS has lost a significant part of the market share it gained from commercial banks during the 1970s. Market share held by larger diversified banks has increased, largely at the expense of small agricultural banks. Medium-size agricultural banks hold by far the largest share of bank-held farm debt. And mega-size nonagricultural banks have increased their market share sharply in recent years, even though farm loans are a small part of their business.

Trends in farm lender performance

A look at market shares provides an important view of the farm lending market's recent dynamics, but the perspective is incomplete. Underlying trends in lender performance, including trends in earnings and loan quality, complete the picture. This section focuses on the recent performance of the three farm lenders most affected by the Agricultural Credit Act of 1987: commercial banks, the FCS, and the FmHA.

Commercial banks. Earnings, as measured by return on assets, have varied widely in the 1980s, especially at agricultural banks (Table 2). Earnings were stronger at agricultural banks than at nonagricultural banks in the early part of the decade, but agriculture's recession drove earnings at these specialized banks to a postwar low in 1986, well below earnings at nonagricultural banks. Earnings at agricultural banks turned up in 1987.

TABLE 2
Return on assets by bank type and size*

	1980	1986	1987
Agricultural Banks†	1.27	0.42	0.68
Small	1.31	0.25	0.50
Medium	1.26	0.47	0.73
Nonagricultural Banks	0.84	0.66	0.54
Small	0.88	−0.23	−0.11
Medium	1.03	0.61	0.66
Large	0.89	0.61	0.65
Mega	0.67	0.72	0.49

*Source: Federal Reserve Board call report data. Return on assets calculated by using total assets at yearend.
†See Table 1 for definition.

But earnings did not rebound at small agricultural banks like they did at medium-size agricultural banks, which hold smaller concentrations of agricultural loans. Earnings at larger banks, agricultural and nonagricultural, have been generally more resilient to market shocks than earnings at small banks.

Trends in earnings at commercial banks have generally followed trends in loan quality, measured by nonperforming loans. As is the case of earnings, fluctuations in nonperforming loans have been sharper at agricultural banks than at nonagricultural banks (Chart 4). Nonperforming loans at agricultural banks rose sharply from very low levels in the early 1980s to a peak of 4.4 percent of all loans as earnings bottomed in 1986. Similarly, nonperforming loans at agricultural banks declined as earnings bounced back in 1987. The comparatively stable level of nonperforming loans at nonagricultural banks stands in stark contrast to the wide fluctuations in nonperforming loans at agricultural banks.

Gauged by both earnings and loan quality, bank

CHART 4

Nonperforming loans at agricultural and nonagricultural banks

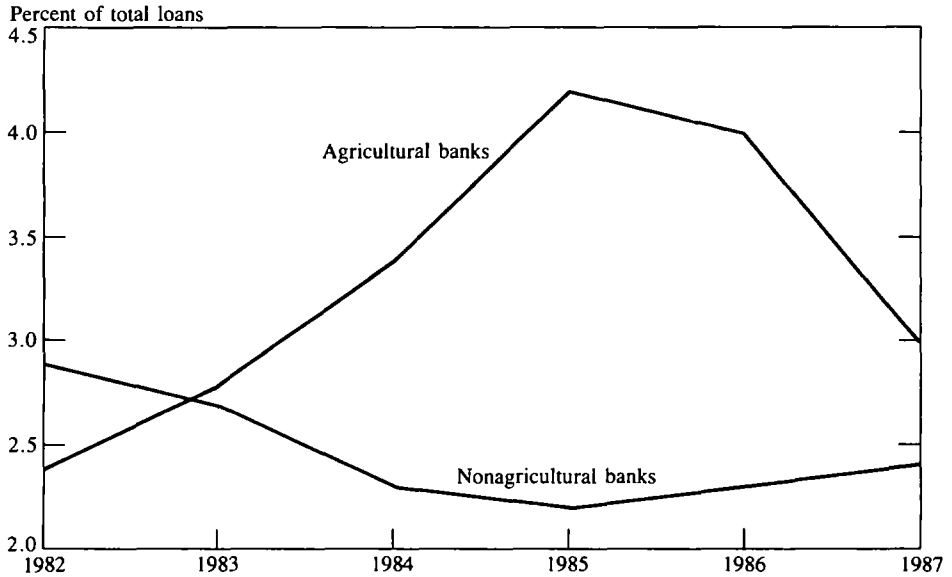
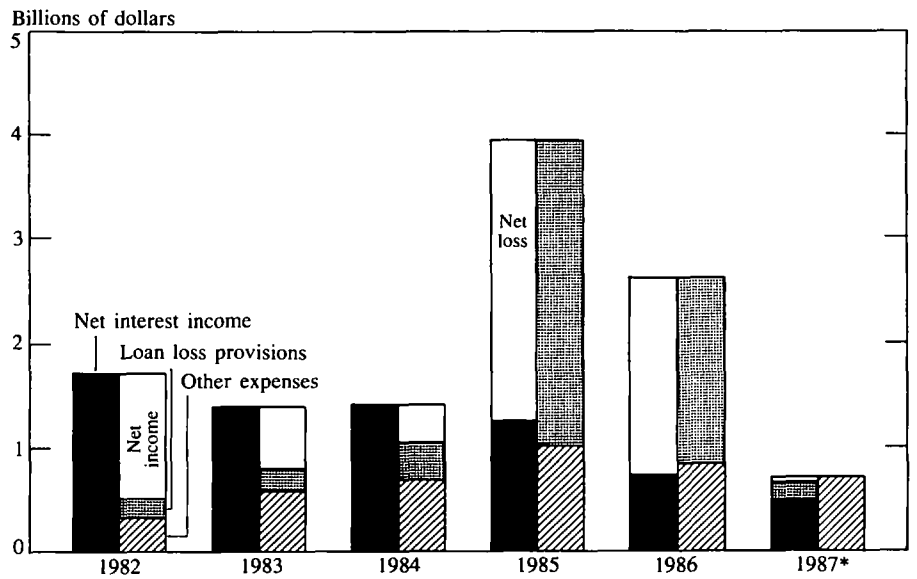


CHART 5

Farm Credit System income components



*$196 million was deducted from loan loss reserves and added to earnings in 1987. The change effectively reduced the size of the system's net loss for the year.

performance has been generally more stable for large banks that do not specialize in farm lending. Earnings at small agricultural banks outpaced earnings at the larger, more diversified banks during agriculture's boom years. But smaller, more specialized banks were hard hit by agriculture's recession, and these banks are now struggling to make up for their losses. These data suggest that, on balance, large diversified banks have the staying power to be an increasing force in the farm lending market.

Farm Credit System. Trends in earnings at the FCS, a lender specialized strictly in agricultural lending, follow the same pattern as earnings at small agricultural banks. Like small agricultural banks, the FCS was hard hit during agriculture's recession. The system lost $2.7 billion in 1985 and $1.9 billion in 1986 before cutting its losses to only $18 million in 1987 (Chart 5).

The system's huge losses were due largely to burgeoning problems with the quality of loans. Nonperforming loans were a growing percentage of the system's shrinking loan portfolio since the early 1980s. Total nonaccrual and other high-risk loans jumped to a high of $12.8 billion in 1986 before edging down to $9.4 billion in 1987. The increase in problem loans came as the size of the system's portfolio shrank a third, to $52.5 billion by 1987. As a result, the proportion of high-risk loans to all loans increased, reaching a high of 22 percent in 1986 before subsiding to 17 percent in 1987. In recognition of its loan quality problems, the system deducted loan loss provisions totaling $4.8 billion from its earnings in 1985 and 1986. The reduction in the system's inventory of problem loans in 1987 prompted the system to reduce its loan loss reserve by $195 million. That $195 million was then added to earnings, significantly improving the year's bottom-line performance.

In addition to the quality problems in the system's loan portfolio, two other factors have contributed to system losses. First, the system's net interest income was further squeezed by interest expense on bonds issued between 1980 and 1982. The bonds could not be recalled and, as a result, system interest expenses could not be adjusted to a general decline in market rates. Second, overhead expenses—salaries, bricks and mortar, and other miscellaneous expenses—have not shrunk as fast as the size of the system's loan portfolio. Instead, overhead expenses rose from 1.1 percent of loans in 1984 to 1.5 percent in 1987. Some of the sluggishness in the adjustment of the system's overhead was due to the higher costs of servicing problem loans and the costs of adjusting to a changing regulatory environment.

The performance of the FCS plummeted sharply during agriculture's recession, much as the performance of other highly specialized lenders to agriculture plummeted. While the system's bottom line improved substantially as agriculture's recovery gained momentum last year, much of the system's improvement can be attributed to a somewhat discretionary reduction in loan loss reserves. Huge previous losses and a persistent inventory of distressed debt still overwhelm the system's recent financial progress and could leave the FCS depending on government assistance.

Farmers Home Administration. The performance of the FmHA has been especially bleak. As the government-subsidized agricultural lender of last resort, the FmHA acquires higher risk farm loans than other lenders are willing to accept. As a result, agriculture's recession caused especially sharp deterioration in the FmHA loan portfolio. In a loan portfolio of $26 billion, $11.8 billion (46 percent) is delinquent, and $7.3 billion (28 percent) has been past due four years or more. The agency expects to write off $8.8 billion of the problem loans, at least a part of those loans made uncollectable by the borrower rights provisions of the Agricultural Credit Act of 1987.

Summary

Agriculture's recent recession and recovery have

stepped up the pace of structural change among farm borrowers. Borrowers appear to be settling into two tiers, each a different market for farm lenders. The first tier is made up of small-scale, part-time farms, large in number but only a small part of the nation's farm production and income. These small farms owe nearly a fifth of the farm debt, which is necessarily serviced from off-farm income sources. The second tier of borrowers are large-scale commercial farms. Although few compared with the nation's small farms, these commercial farms account for most of farm production and income. And like farm production and income, farm debt is becoming increasingly concentrated among the largest of these commercial-scale farms.

The farm recession and recovery also changed the structure of agriculture's lenders. Commercial banks have recently regained the market share they lost in the 1970s. But large diversified banks have increased their share at the expense of smaller banks that traditionally specialized in farm lending. A more stable record of solid earnings throughout the financially turbulent 1980s suggests that these larger, more resilient banks will be an increasing force in the farm lending market.

The Farm Credit System has lost market share. It has suffered huge losses and is plagued by a large inventory of problem loans. Recent improvement in the system's bottom line has not been enough to eliminate the system's need for government assistance. The FmHA has attained the dubious distinction of recording stellar gains in market share at the urging of Congress, only to have most of its recent gains recognized as uncollectable.

In brief, the economic events of the 1980s have increased the pace of change in the farm lending market, change that can be seen in the structure of both farm borrowers and farm lenders. But recent events in the farm economy will not be the only determinants of the future structure of the farm lending market.

A new legislative environment

Changes in the structure of agriculture and changes in the structure of the market for farm loans together describe a new era in agricultural lending. But just as important is the Agricultural Credit Act of 1987. Passed by Congress in late December 1987 and signed into law in early January 1988, the law may be the most important legislation affecting agricultural lending since the 1930s. Originally intended to provide financial assistance to the Farm Credit System, it promises to leave a lasting imprint on other farm lenders as well.

This section summarizes provisions of the act, focusing on four provisions likely to have the greatest effect on farm lending. The act provides assistance to the financially troubled Farm Credit System. It outlines guidelines for restructuring the system. It specifies certain rights for FCS and Farmers Home Administration (FmHA) borrowers. And it enables the creation of the Federal Agricultural Mortgage Corporation (FAMC or Farmer Mac).

Financial assistance

The act meets its primary goal of assisting the Farm Credit System by providing up to $4 billion in direct financial assistance. The money will be raised by a newly created FCS Financial Assistance Corporation selling uncollateralized bonds backed by the full faith and credit of the U.S. government. The new corporation will be capitalized by mandatory stock purchases by FCS institutions. Banks and associations of the FCS must buy stock in the amount by which unallocated retained earnings exceed 5 percent of assets of banks and 13 percent of the assets of associations. This capital assessment on healthy FCS units is similar to the assessments tried earlier by the now defunct Farm Credit Capital Corporation.

The assistance will be administered by the Farm Credit Assistance Board, consisting of the secretaries of Agriculture and the Treasury and a third member, an agricultural producer appointed by the President. One way the new law brings discipline to bear on the FCS is by giving the assistance board almost unlimited powers in overseeing the financial and business management of FCS units that receive assistance.

The objectives of financial assistance are to protect FCS borrower stock, help make FCS institutions financially viable again, and allow units to provide credit on reasonable and competitive terms. The protection furnished to owners of FCS stock stands in stark contrast, of course, to the losses facing stockholders of commercial banks that fail.

FCS restructuring

In exchange for financial assistance to the FCS, the law calls for the restructuring of system units. The Federal Land Bank and Federal Intermediate Credit Bank in each Farm Credit District must have merged by June 1988. Within six months of the district-level merger, any Production Credit Association (PCA) and Federal Land Bank Association (FLBA) serving substantially the same geographic area must submit a plan for merging to stockholder approval. When completed, these mergers are expected to facilitate one-stop servicing of borrowers' long and short-term credit needs.

The act also requires that plans for a larger scale consolidation of system units be submitted for stockholder approval. It sets up an 18-month schedule for considering consolidation of the 12 Farm Credit districts into as few as six districts and calls for plans to merge the 12 Banks for Cooperatives and the Central Bank for Cooperatives into a single National Bank for Cooperatives. These large-scale mergers within the FCS are intended to help cut the system's overhead costs.

Borrower rights

To help fulfill its purpose of providing credit assistance to financially troubled farmers, the act contains a "bill of rights" for farmers borrowing from the FCS and FmHA. These rights spell out the procedures the FCS and FmHA must follow in dealing with troubled loans.

The law requires that borrowers be well informed of the terms of their loans, be granted reviews of adverse credit decisions and actions, and be given their due options before lenders can foreclose. Borrowers must be given 45 days' notice that their loans may be eligible for restructuring before foreclosure can proceed and, generally, loans must be restructured when restructuring would cost less than foreclosure. If foreclosure occurs, the borrower must be given the right of first refusal to lease or purchase the foreclosed property.

When viewed against the problem loans that remain, the borrower rights provisions will be costly for the FCS and the FmHA. The provisions reduce flexibility in dealing with problem loans, increase the costs of servicing these loans, and will likely make many distressed loans uncollectable. The spirit of the borrower rights provisions may be consistent with the FmHA's role as lender of last resort, but agency losses as a result of these provisions could make fewer funds available to borrowers that would otherwise qualify for FmHA loans. The provisions appear inconsistent with the position of the FCS as a commercial lender and could affect the system's ability to compete in an increasingly competitive lending market.

Secondary market

The new law enables the creation of a secondary market for farm and rural housing mortgages by giving rise to the Federal Agricultural Mortgage Corporation, or Farmer Mac. Farmer Mac's role in the new secondary market is similar to that

of its older cousins, Ginnie Mae, Fannie Mae, and Freddie Mac, in the secondary residential mortgage market (see page 37). Farmer Mac guarantees timely payment of principal and interest on securities that represent interests in pools of farm mortgages and are sold to the investing public by loan poolers certified by Farmer Mac. The guarantee is supported by a 10 percent reserve fund formed by the originators or poolers of each loan pool and ultimately supported by a $1.5 billion line of credit at the U.S. Treasury. Treasury funds cannot be tapped until the reserve fund is depleted.

Though several questions regarding Farmer Mac are still to be answered, Farmer Mac's creation is likely to introduce a new level of opportunity and competition in agricultural lending. The secondary market gives commercial banks a new opportunity to become full-service lenders. Banks that have traditionally specialized in short-term operating credit can now also offer long-term farm mortgages without incurring the risk of holding the mortgages in their portfolios while having to fund them with shorter term deposits. Increased interest in mortgage lending by banks is likely to increase competition in a market that the FCS has dominated. The secondary market also promises to attract new entrants into agricultural lending. Major agricultural input suppliers who already have a strong market network in agricultural areas regard the secondary market as a low-cost way of adding to their range of product and financial services. Farm borrowers stand to benefit from the increase in competition and the wider array of service offerings accompanying a viable secondary market.

The future: who wins, who loses

The farm lending market is entering a new era marked by increased structural change in the farm economy and a new legislative environment under the Agricultural Credit Act of 1987. A fundamental question is, Which lenders will gain in the new farm lending market and which will lose? This section focuses on several considerations that will help determine winners and losers. Several factors are first reviewed as likely to characterize the farm lending market of the future. With these factors as a guide, lenders can then be classified as likely losers or gainers in the new agricultural lending market. The main gauge in measuring market success is the market shares lenders can profitably maintain.

Factors governing the future

Four major factors characterizing the future structure of the farm lending market can be distilled from the discussion in the two preceding sections. The first two factors relate to the structure of farm borrowers. The second two relate to the structure of farm lenders.

First, the principal farm debt market is likely to grow slowly and become more concentrated as excess farm-production capacity continues to constrain farm loan demand. Farm borrowers will continue to favor retained earnings and accumulated equity as the preferred means of financing operations, as has been the trend in recent years.

Second, the farm lending market is likely to follow the two-tiered structure of U.S. farming, with a smaller number of financially sophisticated, large farm borrowers holding a growing part of the farm debt. Lenders will face two increasingly distinct farm loan markets. Lending to small farms will be a high-volume, low-margin business, like consumer lending. Lending to large farms will be a lower volume, higher margin business, much like commercial lending.

Third, competition in the farm lending market is likely to intensify as players jealously guard market shares and new entrants elbow their way into a crowded marketplace. Larger diversified banks with stable earnings, the institutions with competitive muscle and staying power, will

become increasingly important players in the farm loan market.

Fourth, the passage of the Agricultural Credit Act introduces unknowns that are likely to change the competitive balance. One of the unknowns the act introduces is the level of acceptance and success the new secondary market can attain. How big will the secondary market be and will it attract new lenders? This discussion assumes that the secondary market will become a major source of mortgage credit, coaxing some suppliers of farm inputs into farm lending and increasing competition. Another unknown is the response of the FCS. This discussion assumes that the FCS will follow the spirit of the act, undertaking extensive reorganization and a new capital base that encourages sound business decisions. Thus, the act is likely to preclude the system's aggressive pursuit of market share, effectively diminishing the system's competitive posture.

Lenders gaining market share

Four lender groups appear most likely to gain a larger share of the farm lending market. Medium-size agricultural banks are poised to gain market share with the continued recovery of the farm economy. Large nonagricultural banks—those in the medium-size, large, and mega-size classes—and nontraditional lenders appear poised to make solid gains. Insurance companies appear likely to make smaller gains.

Medium-size agricultural banks—those with assets greater than $25 million—will confront many of the same problems as small banks, but to a less extent. Like smaller banks, many of these banks are in areas where the opportunities to buffer earnings by diversifying lending risks across industries are limited. A relatively high concentration in farm lending will continue to tie bank earnings to the performance of agriculture. But these banks, especially the larger ones, are big enough to provide the financial services larger farm borrowers require. With continued recovery in the farm economy, medium-size agricultural banks will likely make modest gains in market share, but they will face intense competition from larger nonagricultural banks.

The larger nonagricultural banks, those with more than $25 million in assets, appear well positioned to increase their market share. These banks are large enough to benefit from the diversification of loan portfolios across industries and regions. Their diversity lends stability to earnings and provides a base for competing in the farm loan market. These banks can usually maintain a record of solid earnings by balancing risks from farm lending with other loans.

Economies of size will allow these larger banks to provide the range of financial services that large farm borrowers will seek. Size economies will also give them ready access to the new secondary market. These banks have already used their commercial loan experience to advantage in attracting quality farm loans. Distinctions between farm loans and other small business loans will diminish.

The extent of market presence that mega-size banks want to attain is not clear. Their share of the farm lending market has been rising sharply, but farm lending remains an almost negligible part of their business. The gains they make in market share will likely be limited to the high-profit, large-volume business of the largest farm borrowers.

Nontraditional lenders are expected to gain a stronger foothold in farm lending through the secondary market. Farm input supply firms are likely to view the secondary market as a low-cost opportunity to offer their large customer bases one-stop shopping for farm production inputs and financing. Lack of experience in farm lending may be a disadvantage at first. But that disadvantage is offset, at least to some extent, by the clear advantage of having extensive customer-service networks and large client bases. Tapping secondary markets gives rise to considerable economies

of scale, and large client bases will allow these new lenders to spread fixed costs to low per-borrower levels. Finally, the proposed extension of the secondary market to farm operating loans would allow these firms to increase the volume of their business with little additional cost.[5]

Profitability in the financial services business may vary among these nontraditional lenders. For some, financial services may be simply another means of marketing traditional farm supply services. For others, the new secondary market may be an opportunity for establishing a new profit center in a crowded lending market. Either way, successful offerings of financial services will give farm suppliers a tighter grip on their current customer bases.

Agricultural lending by insurance companies is likely to follow a pattern of lending to large-volume farm borrowers similar to that of the largest commercial banks. The share of the market held by insurance companies has dwindled over the past 15 years as these companies have withdrawn from the farm mortgage market. Since insurance companies do not have large loan origination and servicing networks and usually keep farm mortgages in their loan portfolios, the new secondary market is not expected to entice them back to lending on farm mortgages. More likely, insurance companies will take advantage of the secondary market by buying securities backed by farm mortgages for their investment portfolios and by serving as poolers of farm mortgages.

Lenders losing market share

Three lenders appear likely to lose market share. Recent trends suggest that small banks in the farm loan market, both agricultural and nonagricultural banks, will continue to lose share. And if the Farm Credit System abides by the spirit of the restructuring and recapitalization provisions of the Agricultural Credit Act, it too will lose market share.

Small banks—both agricultural and nonagricultural banks with less than $25 million in assets—will suffer from persistently weak demand for farm loans, leaving them cash rich but earnings starved. Many of these banks in rural areas of the Midwest have loan-deposit ratios well below 50 percent, even though they would prefer higher ratios.[6] Although their small size limits the services these banks can provide large farm borrowers, they are well positioned to serve the small farm borrower. Small farm loans will be serviced increasingly, however, from off-farm income, much like consumer loans, and many small banks are in communities where weak local economies limit the opportunities for off-farm employment. A business plan targeting small farm loans may be of little value in those areas.

The Farm Credit System appears likely to lose market share under the Agricultural Credit Act. Two factors point to such a conclusion. First, the restructuring encouraged in the act is likely to enhance the system's competitiveness by reducing operating expenses. But that effect may be offset by the increase in costs resulting from the borrower rights provisions of the act. Second, the act calls explicitly for the system to establish an insurance fund and a new capital base to backstop its operations. These provisions of the act implicitly require that the system price its loans to

[5] The act specifies that Farmer Mac can issue only securities backed by farm and rural housing mortgages. The act provides, however, that the General Accounting Office will conduct a study in two years to determine if Farmer Mac's authority should be extended to include operating loans to farm and rural businesses.

[6] Loan-deposit ratios at agricultural banks in the Tenth Federal Reserve District (Kansas City) averaged 49.5 percent at the end of 1987, and 45 percent of the agricultural banks in the district reported loan-deposit ratios lower than desired. These percentages were, respectively, 50.3 percent and 78 percent in the Seventh Federal Reserve District (Chicago), and 50.0 percent and 67 percent in the Ninth Federal Reserve District (Minneapolis).

reflect the full costs of doing business. Otherwise, the system's insurance fund and capital base would gradually be depleted by continued operating losses. As the system moves toward a market-based pricing policy, it denies itself the luxury of purchasing market share at the expense of profitability. Thus, the FCS of the future may be smaller but more profitable.

Reducing market share while raising profitability is one possible outcome for the FCS. Alternatively, the system may try to return to the credo that bigger is better, building market share at the expense of profitability. Trying to regain market share quickly with a pricing policy that does not reflect all its costs would, at best, leave the system with small profits and, at worst, with huge losses.

Persistent FCS losses would eventually leave the system depending on the good will of the taxpayers, and only a step removed from the FmHA. Not bound by the discipline of the market, the FCS would be free to rewrite the ground rules for competition among public and private lenders. Commercial banks would, in effect, be forced to compete against lenders that were not bound by bottom-line discipline. A loss-plagued FCS and a still large FmHA could leave a sizable part of the farm debt essentially in the hands of the government, burdening the public with a substantial ongoing cost.

Conclusions

A broad farm recovery is ushering in a new era for farm borrowers and lenders. After the deepest farm recession since the Depression, the turnaround is welcome. The beginning of the new era marks a time for reappraising significant structural changes in the farm lending environment. Farm borrowing has become more concentrated among large farms as the nation's agriculture has increased its inexorable trend toward fewer farms controlling more farm production. Farm lending has also shifted, with traditional agricultural banks and the FCS losing market share while larger and better diversified banks and the FmHA have gained market share.

The farm lending market of the future promises to be more competitive than ever. Large size and consistent earnings give commercial lenders market staying power. The Agricultural Credit Act gives the FCS the means to become a competitive lender again; the system must now supply the resolve to carry out what promises to be a major restructuring of its operations. The act will stimulate competition through the creation of Farmer Mac, a new secondary market for farm mortgages. Nontraditional lenders appear poised to enter the farm lending market. Farm borrowers will benefit from the increase in competition, but lenders will have to follow sound business plans to succeed.

Current trends suggest some winners and losers in the farm lending market of the future. Large nonagricultural banks appear likely to increase their market share while small agricultural banks lose share. The small agricultural banks appear to face a difficult future characterized by weak earnings. Nontraditional lenders, while still largely unknown, will probably gain market presence. The FCS may lose market share or, at best, keep its current diminished share if it moves to restore profitability.

The biggest challenge ahead for all farm borrowers and lenders will be negotiating the future course of agriculture's recovery. The recovery is importantly underwritten by Washington. How long the recovery will last, and how robust it will be, depends, on the one hand, on the timing of any phasing down of farm programs, and, on the other, on further growth in export markets. The outcome is not clear. But even if the farm recovery stalls or tips into recession, both farm borrowers and farm lenders will be better prepared than in the early 1980s. One of the abiding hallmarks of the new era in farm lending is a financial conservatism born out of adversity.

Secondary Markets and Farmer Mac

Farmer Mac represents a new form of lending to agriculture. However, secondary markets are a time-tested tool of financing long-term debt. The secondary farm mortgage market will operate on the same principles as its more established residential mortgage cousins. The eventual size of the Farmer Mac market and the pricing of its securities are still unknown, but comparisons with existing markets offer some clues.

Residential mortgage markets

The secondary market is a major part of the nation's residential real estate lending market. Three agencies play a part in the secondary residential mortgage market similar to the role to be played by Farmer Mac in the secondary farm mortgage market. These agencies are the Government National Mortgage Association (Ginnie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac), and the Federal National Mortgage Association (Fannie Mae). Mortgage pass-through securities are claims on pools of residential mortgages. These securities were first issued in 1970 under the auspices of Ginnie Mae. Ginnie Mae guarantees full and timely payment from pools of mortgages insured by the Federal Housing Administration (FHA) or guaranteed by the Veterans Administration (VA). The Ginnie Mae guarantee is backed by the full faith and credit of the U.S. government. Under a similar program started in 1971, Freddie Mac guarantees payments from pools of conventional residential mortgages, the difference being that the Freddie Mac guarantee is not government backed. Fannie Mae, a purchaser of residential mortgages since 1938, began issuing securities backed by FHA, VA, and conventional mortgages in 1981. Like the Freddie Mac guarantee, the Fannie Mae guarantee of payment is not government backed, but the corporation does have a $2.25 billion line of credit at the U.S. Treasury, a credit line that has never been used.

The U.S. secondary residential mortgage market is enormous, and Ginnie Mae, Freddie Mac, and Fannie Mae are its biggest players. Outstanding principal balances of residential mortgages backing securities guaranteed by these three agencies totaled more than $670 billion at the end of 1987, 31 percent of the total residential mortgage debt. The three agencies held another $110 billion of mortgages in their portfolios. The largest part of these unsecuritized mortgages ($96 billion) was held by Fannie Mae.

Yields on secondary mortgage market securities are usually between the yields on Aaa- and Aa-rated corporate bonds. For the past five years, for example, yields on Ginnie Mae mortgage-backed securities have averaged 110 basis points higher than the yield on 10-year Treasury bonds, 24 basis points higher than the yield on Aaa corporate bonds, and 20 basis points less than the yield on Aa bonds.

The outlook for Farmer Mac

The secondary farm mortgage market will be a far smaller market than the secondary residential mortgage market because the total value of farm real estate assets and debt is comparatively small. The value of U.S. farm real estate totaled $576 billion at the end of 1987. Debt against this real estate totaled only $90 billion, about 4 percent of the value of all residential mortgages outstanding. Transfers of farmland every year average roughly $20 billion, and about $8 billion in new farm mortgage credit is extended every year. Only part of the new farm mortgage credit

extended every year will qualify for the new secondary market, and that part will be determined by the underwriting standards qualifying mortgages must meet. Thus, as significant as the Farmer Mac market may be to farmers, it will be very small compared with other mortgage markets.

It is still unknown how yields on Farmer Mac-guaranteed securities will compare with yields on other securities. But the spread between yields on Farmer Mac securities and Treasury securities is not likely to differ much from the spread between FCS and Treasury securities. Yields on seven-year FCS bonds averaged 44 basis points higher than yields of Treasury securities in 1986 and 1987.

The estimate that yields on Farmer Mac securities are likely to be similar to those on FCS bonds is based on recognition of the similarities between the new secondary market and the FCS. First, the FCS obtains farm loan funds by tapping national financial markets through sales of systemwide notes and bonds. The new secondary market will tap the same markets through the sale of mortgage-backed securities. Second, the risk of default assumed by investors in FCS securities is reduced by the joint and several liability for payment on these obligations assumed by all FCS institutions. The understanding that all system institutions back payment on FCS issues effectively reduces the investors' risk through diversification. The same sort of diversification is achieved by the secondary market by pooling a diverse group of farm mortgages. Third, and most important, investors have accepted the implied agency status of FCS securities as an implicit government guarantee against loss. Similarly, the Farmer Mac guarantee is backed by a line of credit at the U.S. Treasury that can be tapped if losses in any mortgage pool exceed the 10 percent reserve fund established by originators or poolers.