FARM CREDIT ADMINISTRATION

Loan Portfolio Management

Acknowledgements

Three individuals were instrumental in producing this publication:

T. Harold Derrick, Special Examination and Supervision Division, Office of Examination
Leonard Peterson, Sacramento Field Office, Office of Examination
Carl Premschak, Denver Field Office, Office of Examination

The Farm Credit Administration expresses its thanks and appreciation for their contributions and leadership. Also, a special word of thanks is given to Professor John B. Penson, Jr., Texas A&M University, for his contributions. Questions regarding the content of this publication or requests for free copies should be directed to the following:

Office of Congressional and Public Affairs
Farm Credit Administration
1501 Farm Credit Drive
McLean, VA 22102-5090
Telephone: 703-883-4056
Facsimile: 703-790-3260
E-mail: info-line@fca.gov

Additional information about the Farm Credit Administration and the Farm Credit System is available on FCA's Home Page on the World Wide Web. The Web site is located at http://www.fca.gov.

Roland E. Smith
Chief Examiner and Director of the Office of Examination

Foreword

In 1998, the Farm Credit System (FCS or System) reported the best financial health and credit quality of its 65-year history. Managerial talent, coupled with strong capitalization and stable earnings, has bolstered the System's viability. Its capacity to serve as a sound source of credit for America's farmers, ranchers, and cooperatives remains unquestioned. We attribute much of the System's safety and soundness to the extensive contributions of its many boards, who ensure that its financial condition is sound despite constant volatility in world economies and the agricultural markets. We also view these boards as the leaders of their respective institutions, and they have the unique honor and responsibility of shaping the institution's future through the proper stewardship of its assets — the loans to the farmer-owners of their institution.

The System's excellent financial condition and low-risk profile provide opportunities to augment portfolio management processes and to prepare for potential systemic risk. Thus, this publication provides recommendations on loan portfolio management for all System institutions to consider. This publication achieves a twofold objective. First, it outlines methods of controlling risk in individual loans and loan portfolios. Second, it explains interrelationships between planning, directing, controlling, and monitoring of lending operations, which are crucial to the performance of director responsibilities.

We at the Farm Credit Administration endorse the philosophy that managing risk, not avoiding it, is crucial to System viability. This pivotal capability has maintained the financial strength and competitive position of all System institutions. Impending competitive forces in agricultural lending will continue to mandate that System institutions provide exceptional customer service, produce more with less, and remain well capitalized. Doing so will necessitate using technology to enhance loan portfolio management processes that will immunize capital against undue risk.

This publication does not cover all aspects of the puzzle of what we characterize as effective loan portfolio management, but we do describe its major components. As we visualize the puzzle's layout, the publication begins with a strategic vision that encompasses the entire agricultural market. The pieces of the loan portfolio management puzzle are then set in a risk environment that presents the challenges to System institutions, and we conclude with putting the 10 pieces of the loan portfolio management puzzle together into an effective system. We hope this publication will help each System institution fulfill its mission to provide a dependable source of credit for rural America.

Marsha Pyle Martin
Chairman and Chief Executive Officer

Michael M. Reyna
Member of the Board

Ann Jorgensen
Member of the Board

Table of Contents

1

Visualizing the Puzzle—The Changing Marketplace

The lifeblood of each lending institution is its loan portfolio, and the success of the institution depends on how well that portfolio is managed. Therefore, any study of a Farm Credit institution's loan portfolio must be based on characteristics of the farmers and on their agricultural industries, economic and competitive conditions, and commonly used lending practices within the territory served by the institution. This section presents an overview of each of these factors from the regulatory perspective of the Farm Credit Administration (FCA or Agency) and provides Farm Credit System (FCS or System) boards with guidance in establishing the strategic vision for their institutions.

Demographics of the American Farmer

To remain competitive in the agricultural lending market, successful agricultural lenders must continually consider the changing demographics and needs of their farm customers. The foundation for their success is built on sound loan portfolio management systems that clearly recognize and understand the changing nature of the American farmer and customer. The number of full-time farm operators has declined dramatically since 1935, and this trend is expected to continue. Despite the trend toward fewer and larger operators, American farmers remain the most efficient and abundant producers of food and fiber in the world. A clear understanding of this operating environment and the nature of American farmers helps agricultural lenders maintain safe and sound operations.

While each American farmer is unique, categorizing farmers into larger groups with common characteristics can help lenders make prudent loan portfolio decisions and can guide the strategic planning process. American farmers can be divided into three broad groups: generational, commercial, and lifestyle farmers.[1] Each category has its own borrowing requirements and position in the credit marketplace.

Generational Farmers

The generational group is the largest category and comprises farmers over the age of 50 who intend to farm until retirement. They generally average $250,000 or less in annual gross agricultural income. Generational farmers have typically farmed all their lives, have come from previous generations of farm families, and are firmly entrenched in the American family farming tradition. This group of American farmers experienced the greatest loss of numbers during the 20th century, and the declining trend is expected to continue into the next century.

Commercial Farmers

Commercial farmers have annual sales in excess of $250,000, and they produce more than 49 percent of all agricultural outputs. They make up only about 6 percent of American farmers. The commercial farmer can be a sole proprietorship, partnership, corporation, or any other legal entity, while generational and lifestyle farmers are almost always sole proprietors. Commercial farmers need to run highly efficient operations. They usually competitively shop for credit and tend to run the more complex

1 These definitions and farmer categories are used solely as a means to provide a background for this publication and should not be associated with any other U.S. Department of Agriculture (USDA) or FCA farmer classifications.

and higher-leveraged operations. The credit needs of commercial farmers are quite different from the other categories.

Lifestyle Farmers

This third major category represents a growth sector of American farmers. Lifestyle farmers desire to reside in rural areas, typically have a part-time farm operation, and rely on nonfarm income for their primary support. Many rural homeowners are also included in this group. The credit needs of this group can vary greatly, depending on location and the economic conditions in the nonfarm sector. Loans to this group are generally smaller with repayment terms tied to nonfarm income. Historically, loan losses from lifestyle farmers have been less than the other two categories.

Lending to these diverse groups of farmers poses challenges and opportunities that each lender must fully consider in developing market strategies. The changing market demographics must be an integral part of a lender's strategic business planning process and can become the basis for its loan portfolio management system.

Competition Among Agricultural Lenders

The financial services marketplace has undergone dynamic and substantial changes as commercial lenders, vendors, and service organizations compete to meet customer needs. The decline in agricultural lending from 1984 through 1989 saw many lenders, including commercial banks and insurance companies, leave the marketplace. Total agricultural loan volume declined, and loan losses soared in both commercial banks and Farm Credit institutions. However, this trend reversed in the 1990's as agriculture regained its financial footing and as lenders returned to the marketplace.

According to USDA statistics, agricultural loan volume peaked in 1984, when total farm sector debt was $193.9 billion. By the end of the farm crisis in 1989, total agricultural debt declined to a low of $137.9 billion. Agricultural debt resumed its growth in the 1990's with USDA estimating that total agricultural debt climbed to more than $162.2 billion by year-end 1997.

Although the System concluded its third year of positive loan growth in 1997, it has not yet recaptured its position as the dominant lender to American agriculture. Before 1987, the System was the largest single source of funding for agriculture. However, commercial banks became the leader in agricultural lending in 1987 and retain that position today.

While the historical, cyclical nature of agriculture remains a concern, many economists have made positive long-term projections for the agricultural economy. Lenders' net interest income remained high in 1997, allowing many System institutions and agricultural commercial banks to enjoy record earnings. By 1998, agricultural credit quality was at an all-time high and nonearning assets were at the lowest level of the decade. Land values—while not rising as fast as in 1996—are still strong relative to just a few years ago. As a result, competition is strong for agricultural borrowers, and some lenders are making loans that would have been denied just a few years ago. The 1998 *Survey of Credit Underwriting Practices*, prepared by the Office of the Comptroller of the Currency, confirms these findings of a relaxation of loan underwriting standards. Many fear that this complacency and appetite for risk is pervasive among many lenders, including the System, and that this attitude may again threaten the safety and soundness of agricultural lending institutions.

New entrants into the market for agricultural loans have increased competitive pressures for FCS institutions. During the 1990's, a variety of nonbank lenders, such as John Deere Credit, J.I. Case Co., and others, have become more active in the marketplace. These vendor-related lenders generally rely on point-of-sale financing and have become aggressive competitors for both System institutions and commercial banks. These lenders typically rely on scorecard loan applications and are known for rapid approval of loan requests. Agricultural lending markets will continue to attract traditional agricultural lenders like commercial banks and insurance companies. However, the new, nontraditional participants—such as the recent entrance of General Motors Acceptance Corporation—will likely change the landscape for agricultural financing in the future.

Competitive pressures on System institutions for the higher-quality agricultural loans will remain intense. To remain competitive, System institutions will feel increasing pressure to further control or cut operating expenses, reduce paperwork, and provide faster loan approvals with less information. These competitive and market-driven pressures place additional demands and requirements on System institutions to develop and maintain high-quality and efficient loan portfolio management and information systems.

Changes in Public Policy and the Regulatory Environment

In addition to the changing market base, dynamic competition, and the inherent economic risks in financing agriculture, lenders face increased uncertainty from State and Federal laws, policy, and regulations. For example, the Federal Agricultural Improvement and Reform Act of 1996 (FAIR Act) has affected the agricultural lending environment in at least two major ways. Most dramatic is the departure from annual deficiency payments that reimburse producers for the difference between target and current market prices. The FAIR Act places producers and lenders in an environment of declining predetermined contract payments, which are scheduled to drop to zero after 2002. The FAIR Act's second major change is the elimination of ad hoc disaster payments that have protected underinsured borrowers and their lenders in the past. The elimination of price support and disaster relief payments substantially increases a lender's exposure to credit and collateral risk.

Global policy risk is another element that lenders will face in the future. For example, the optimistic picture that was painted for the demand of agricultural exports into the next century was abruptly undermined by the 1998 Asian crisis. Without a sustainable strong export demand, American farm incomes will decline. Declines in farm income will diminish a farmer's debt repayment capacity.

In addition to declining Government support programs and the volatility of world markets, agricultural producers and lenders face heightened regulatory and public awareness of environmental and health concerns related to farming enterprises across the Nation. The ban on any new swine confinement operations in North Carolina and the pfiesteria infestation in the Chesapeake Bay demonstrate this new reality. Potential Federal, State, or local regulations will likely address issues such as agricultural pesticides and the handling of waste products from extremely large livestock operations. Agencies like the Environmental Protection Agency are increasingly active and are more involved in determining the way farmers can conduct their operations.

With greater price volatility in the future, reductions in Government subsidy and disaster payments, rising input costs, and changing environmental regulations, the agricultural lending environment will be exposed to greater risks. Many of these factors are largely unpredictable. Credit officers and loan portfolio managers will be increasingly challenged to develop effective portfolio management skills and tools to provide more accurate and reliable credit and loan portfolio analyses. Successful lenders must effectively use those tools to evaluate the past while looking forward to reasonably predict how specific adverse conditions will affect their customers.

Credit Evaluation Practices

An irony of agricultural lending is that the credit evaluation process has undergone little change despite all the dramatic changes that have occurred in the marketplace. All commercial lenders, including System institutions, establish and maintain a basic process for making credit decisions. The evaluation of agricultural loans has traditionally been based on analysis of the five primary credit factors. These credit factors, often called the "five C's of credit" for capacity, capital, collateral, character, and condition, remain valid for making sound credit decisions today. For analytical purposes, institutions typically assign a relative weight to each of these credit factors based on the specific circumstances for each individual borrower.

While the "five C's" are a useful tool, credit analysis should increasingly emphasize the evaluation of the applicant's future debt repayment capacity. This analysis should be based on various sources of information about the borrower that become more reliable and sophisticated as the complexity and size of the farming operation increases. They include historical financial indicators, credit bureau reports, an assessment of the borrower's managerial abilities, and a demonstrated willingness to repay the loan. Historical financial indicators can be calculated from previous financial statements and should be used to assess past trends in liquidity, solvency, profitability, efficiency, and debt repayment capacity. This information is important to lenders as they evaluate the borrower's current financial position and how well the borrower has performed in recent years. These indicators should then be compared to the lender's underwriting standards to assess the individual borrower's creditworthiness.

Credit scoring models have gained acceptance among agricultural lenders. The popularity of these models stems largely from the cost savings and the shorter time required for loan decisions. In general, credit-scoring models are based more on past lending history and collateral considerations than on the factors that predict the reliability of future income. Current models have not undergone periods of declining net income like those experienced during the 1980's farm crisis; therefore, some degree of uncertainty exists on the reliability of these models.

Lenders are expected to establish reasonable exposure limits on scorecard approved loans and to ensure that loan loss reserves are sufficient to prevent the dissipation of capital. Lenders should determine the factors that will be used to establish the scorecard and the extent to which variables used in the institution's loan underwriting standards will be included. Finally, lenders should decide whether the credit scores are used only as input for the loan approval process or whether the scorecard becomes the only basis for loan approval. The use of lending tools, such as stress testing and scorecard lending, will continue to change the way lenders analyze and process agricultural loans.

5

Laying Out the Puzzle—The Risk Environment

Agricultural loans are the mainstay of the System's business and revenues. To enhance this business, the institution should use the lessons learned in the past to develop strategies to safeguard its future. Avoiding or effectively managing the types of risks previously experienced better prepares the institution to identify and control the variety of existing and potential risks on the agricultural lending horizon. The key underlying strategy is to manage risk exposure by effectively underwriting the credit risk at a return that adequately compensates the institution for the risk incurred.

Lessons from the Past

Lessons from the past must be remembered as System boards and management teams establish strategic plans, goals, and objectives to lead their institutions into the 21st century. Successful lenders must guard against complacency from their recent achievements and must take the time to reconsider where they have been. It is essential that these lessons from the past be incorporated in the institution's philosophy for loan portfolio management.

No serious student of farm credit history can forget the conditions that occurred in the agricultural community during the 1980's. The decade of the 1970's brought unprecedented growth and prosperity to the agricultural sector, which carried over into the early 1980's. During this period, agricultural lenders, including some System institutions, rapidly increased loan volume and followed lending practices that were contrary to safe and sound lending principles. An over-reliance on inflated expectations for future incomes combined with rapidly increasing values for agricultural assets, especially farm real estate, gave lenders a false sense of security in the unsubstantiated value of their loan portfolios. Loan decisions were largely driven by loan-to-value ratios that were supported by market-driven analysis of comparable sales of agricultural properties rather than by a realistic analysis of the cash flow that was generated from the properties. In many cases, cash flows were insufficient to support the debt levels placed on the property. Income from sources other than the pledged farm collateral was often needed to repay loans made during this period. Beginning in 1979, major shifts in Federal Reserve policy led to soaring interest rates that caused material declines in agricultural income. By 1983 this problem had become widespread, and it was followed by a collapse of the agricultural real estate market in most areas of the United States.

These conditions contributed to substantial loan losses for all major agricultural lenders, including the System, commercial banks, insurance companies, and the Farmers Home Administration (predecessor to the USDA's Farm Services Agency) from 1984 through 1989. But as catastrophic as conditions were in that era, more farmers survived the crisis than succumbed to its perils.

Lessons from this period must be remembered and considered as the boom years of the 1990's usher in a new century. Future loan portfolio management must rely on dependable and realistic incomes from all agricultural sectors and commodity groups to establish goals and objectives for the institution.

6

Balancing Risk and Return

Each institution's board is responsible for ensuring profitable, safe, and sound operations, regardless of economic conditions in local, domestic, or international markets. The planning process that is directed by each board functions as a key mechanism for managing risks through periods of market volatility and ensures that returns remain stable and commensurate with the risks taken. Boards are responsible to ensure that operations will be conducted in a prudent and balanced manner in order to provide sufficient returns to capital.

The board cannot control all things that affect a borrower's profitability in the operating environment, such as weather, economic conditions, or commodity prices. Yet the board is charged with the fiduciary duty to make certain the institution operates within prescribed policies, in compliance with laws and regulations, and in a safe and sound manner through whatever perils its borrowers may encounter. Therefore, the board must focus its direction on those components it can control to ensure that the institution remains financially sound and profitable for the benefit of its stockholders and for future generations of farmer-borrowers. A few of those controllable components include the following:

- Planning strategically for various risk scenarios;
- Hiring capable and talented management;
- Establishing loan underwriting standards that are comparable with the institution's risk-bearing capacity and that result in sound loans;
- Pricing loans commensurate with risk;
- Managing loan concentrations by industry, size, commodity group, customer type, or affiliated group;
- Managing the institution's capital; and
- Maintaining an effective and reliable internal review process with prompt reporting to the board and management.

Maintaining the balance between risk and return is a core principle that must guide the institution's planning processes. It is especially important in today's business environment, which is growth driven, is highly competitive, and demands that more be accomplished with less. Internal controls and review systems are often de-emphasized during good times and may result in declining capital ratios and low returns on assets. However, these effects on operations can be mitigated through effective management processes that identify, monitor, and, in a timely way, report risk within an institution to its board. Once the board is aware of these factors, contingencies can be initiated to control operational stability and maintain safety and soundness.

The risk-return balance mandated by the board must be effectively communicated through the board's operating culture, plans, and direction. This guidance should establish initiatives that are essential to safety and soundness including:

- Growth Balanced by Controls — Maintaining the equilibrium between growth and controls is critical during periods of economic expansion and intense competition. As a board's credit culture and growth initiatives are communicated through its goals and plans, its lending controls (risk parameters, lending standards, and loan structure limitations) should function to offset the underwriting of undue risk and provide a basis for denying unacceptable risks. Without these preventive lending controls, growth initiatives will dominate lending decisions. Inevitably, as the risks within commodity sectors and industry concentrations remain unidentified and create an aggregated exposure, bad debts will increase, which could become unmanageable.

- Loan Pricing Commensurate to Risk — Equally important as managing the institution's growth with proper controls, each board must establish loan pricing policies that result in appropriate capital accretion and return to shareholders. For every loan that is originated, a loan price must accurately compensate the institution for the risks that are assumed. These pricing risks can be segregated into three categories: inherent credit risk, risk of inadequate return to capital, and value-added risk.

Inherent risk is the probability of loss in the loan and is determined by measuring the likelihood that planned repayment will or will not occur as projected. Conclusions on the extent of inherent risk in any loan are drawn from a comparison of past and projected performance with peers and the board's credit standards. Risk ratings and credit classifications evolve from this analysis, and loan pricing generally increases in proportion to the inherent credit risk determined by these measures. Concerns about safety and soundness may arise during periods of excessive growth and intense competition when reduced loan pricing is used to "make the credit work" or "keep the account." These actions often understate risk to capital, as low loan prices may inflate cash flow margins and camouflage the inherent loan risk against detection by the institution's established internal controls. If this condition becomes portfolio-wide or systemic, then institutional risks increase as performing accounts ultimately must be repriced at a higher level to compensate for the inaccurate risk-return situation on lower-quality loans.

The risk of an inadequate return to capital is a safety and soundness issue, evident during periods of rapid growth or intense competitive pressures. This risk is prevalent when institutions attempt to meet competing prices on individual loans without regard for the institutional risk-return level needed. For an institution to maintain safe and sound performance, its loan portfolio must be priced to yield an aggregate return to capital that is commensurate with the institution's risk-bearing capacity and its own portfolio characteristics. This goal is accomplished by quantifying and analyzing the material risks facing the institution to determine what levels of profits (price) and capital (value) are needed for each risk sector to insulate shareholders from undue exposure. Each risk sector should be considered both individually and collectively for the entire portfolio. These sectors may include credit risk, concentration risk, collateral risk, interest rate risk, liquidity risk, and others. Each risk represents a varying degree of potential cost, and the institution's loan pricing policy must adequately compensate shareholder equity for the exposure assumed. The performance of each institution depends on the board's prudent oversight of operations to balance the return to the risk on each individual asset. To establish this balance, the institution must consider the aggregate balance of all parts of the portfolio, not just the pricing decision on an individual loan.

Value-added risk is the risk that intangible benefits will not be appropriately considered as loans are priced. Intangible benefits may include the borrower's relationships to other borrowers or to potential customers who do not borrow from the institution. This factor represents a significant business risk, especially in a highly competitive market. The risk often occurs in an institution that markets and services its borrowers in an impersonal manner. Loan-pricing policies that are developed in an environment characterized by growth, competition, and impersonal practices will often fail to consider the promotion, distribution, and product development costs that are essential to maintain a competitive advantage or to position the institution in its niche. Therefore, the institution should consider value-added risk and price its loans accordingly. Following this practice, the institution will possess the means to convert potential customers into good business.

9

Mastering the Puzzle—Building an Effective Loan Portfolio Management System

Board of Directors

As the leaders of each System institution, members of the board face the unique challenge of overseeing and directing the affairs of that institution. Although the board is charged with many responsibilities, loan portfolio management (LPM) is one responsibility critical to the success of the institution. However, portfolio management does not have be a perplexing puzzle to the lending institution or its directors. Rather, the board is urged to view it as the simple, but dynamic, process of managing the institution's primary earning assets (i.e., loans) to achieve the objectives established in the board's strategic business and capital plans. LPM encompasses all systems and processes used by the board and management to adequately plan, direct, control, and monitor the institution's lending operations. The principal components of an effective LPM system include strategic portfolio planning, lending policies and procedures, loan underwriting standards, a reliable risk identification program, clearly defined limits for portfolio concentrations, and an internal credit and collateral review. While not all inclusive, these components should be incorporated in the institution's portfolio management system and lending operations.

Portfolio management is a continuous process that must include analysis of how business results were achieved, whether such results will continue, and how the institution can maximize its opportunities and provide the greatest benefits to its members. Because of the inherent risks in lending and the System's statutory limitations on lending authorities, each institution must effectively manage the loan portfolio. While an effective LPM system must incorporate and maintain many diverse elements and components, the scope and coverage of the system may vary based on the size, organizational structure, and complexity of the institution and its loan portfolio. In every institution, the LPM system must ensure that all material aspects of lending operations are adequately controlled relative to the institution's risk-bearing capacity.

An institution's board should recognize that loan underwriting standards are a critical component of effective portfolio management. Loan underwriting standards form the critical link between the institution's strategic portfolio objectives and the individual loans in its portfolio. While the safety and soundness of the institution is ultimately determined by its portfolio management system, loan underwriting standards become the foundation that supports the quality, composition, size, and profitability of the portfolio.

Planning

A board's strategic business and capital plans outline the vision, culture, profit potential and risk-bearing capacity of an institution. Together, they define the institution's operating culture that provides the momentum for growth, performance, and financial stature. An institution's strategic plan must communicate both the board's mission today and its long-term vision. In doing so, the plan lays out a course of action based on an assessment of opportunities. Through an evaluation of capabilities and competitive forces, the plan identifies areas where an institution should confront competition and where it should avoid competition. As it relates to lending, this evaluation is where decisions are made to either expand into new markets or products or to contract lending operations in anticipation of some predicted adversity.

While the business and capital plans should clearly project near-term performance, goals, and objectives, in practice, the plans should generally encompass a 3- to 5-year planning horizon. The intent is that the succession of several business and capital plans will advance the institution toward achieving the vision contained in the strategic plan. From a lending perspective, an institution's business and capital plans should quantify the expansion and contraction of its interest earning assets. These loan assets, including operating loans, installment financing, "low-doc" programs, loan participations, etc., are assigned target penetration levels with the intent of generating the best possible return to equity. Within targeted asset categories, the plans should show the composition by commodity sector, loan type, geographic region, credit classification, and other loan portfolio measures. This approach quantifies the board's estimate of what volume can be achieved within each asset class through the institution's marketing efforts.

Directing

Lending policies and procedures are key elements of LPM and should provide specific direction and control over lending operations and for each authorized lending program. An institution's credit policy is an agreed-upon philosophy of the board and management and encompasses all phases of lending activities. Credit policies direct the framework of ethics, standards, and pricing processes that ultimately become the institution's lending practices. In addition, lending policies should be consistent with the goals and objectives developed through strategic planning and should be reviewed and revised annually during the planning process.

Depending on board philosophy and the financial objectives of the institution, lending policies may vary from offering general guidance to offering very specific direction to management. However, at a minimum, direction provided by lending policies should be commensurate with the program's impact on lending operations and should adhere to the principles of sound lending and regulatory requirements. Board policies and management procedures should specifically define the institution's process and the requirements for analyzing and documenting loans (12 CFR 614.4150), loan servicing (12 CFR 614.4510), and collateral evaluation (12 CFR 614.4245) as prescribed in the cited FCA regulations. Board-approved loan underwriting standards should be fully defined in the lending policies to clearly establish the board's minimum standards for creditworthiness and acceptable risk margins. While lending policies should allow sufficient flexibility for changing conditions, the institution's procedures, controls, and information systems should ensure that lending policies are adequately and consistently implemented.

In today's lending environment, a credit culture is critical for each institution. A credit culture should be based on the way loans are made, and it should be implemented through the board's credit risk management and its loan underwriting standards. The culture may originate in institutional organization and planning, but it is perfected by board and management through their directing, monitoring, and controlling of lending operations. The optimal credit culture strives to avoid unacceptable loans while making the right ones.

More specifically, a good credit culture seeks to reduce risk while increasing growth and profits through high-quality loan volume. Reducing risk may be accomplished by evaluating credit applications against underwriting standards. Maintaining a consistent credit culture is most often achieved through effective communication of board direction through plans, policies, procedures, and underwriting standards.

Internal Control System

Loan portfolio management, like other management programs and operations, requires an effective system of checks and balances to ensure that the institution is meeting program objectives and is adequately protected from unnecessary risk exposure. These safeguards are generally provided through a system of internal controls that includes a combination of both "preventive" and "detective" controls. The foundation for an effective control system is the board's internal control policy. The related controls developed through that policy will provide the building blocks for a safe and sound institution, including appropriate checks and balances over the lending operations.

FCA regulation 12 CFR 618.8430 requires the board of each institution to adopt an internal control policy that provides adequate direction for establishing effective controls over and accountability for its operations, programs, and resources. This policy should be comprehensive and provide guidance for all operating areas, including LPM. Because of the inherent risk in lending operations, the regulation specifically calls for an internal control program to routinely review and assess the institution's assets. If properly designed and implemented, the board's policy and its system of internal controls provide an effective framework to accomplish management objectives, safeguard assets, maintain accurate financial reporting, and ensure compliance with laws and regulations.

Effective internal controls prevent or guard against undesired actions and provide continuing reasonable assurance that the institution is operating in a safe and sound manner. If an internal control policy or system is weak or lacking, risk exposure increases substantially, and the chances for effective performance and desired results are significantly reduced. Therefore, a primary objective of FCA's examination process is to ensure that effective internal control systems are in place in each institution.

An institution's lending operations should be controlled by a number of internal control components, which will generally include a combination of both "preventive" and "detective" controls. In portfolio management, preventive controls ensure that transactions and activities are performed in compliance with board direction and objectives. As shown in the following list, preventive controls can be implemented in a variety of ways:

- Business and capital planning;
- Board policies and procedures;
- Risk parameters;
- Loan underwriting standards;
- Risk identification and classification systems;
- Delegations of authority;
- Performance standards and appraisals;
- Management information systems; and
- Board reporting.

Detective controls, however, primarily test completed transactions. The purpose is to identify actions or activities that fall outside policy, procedure, or risk parameters and, therefore, are not in compliance with the board's objectives or direction for portfolio management. Conditions identified through detective controls generally warrant board and management attention through remedial corrective actions or through plans that correct weaknesses. For loan portfolio management, detective controls generally include several processes as shown in the following list:

- Supervisory or management reviews of operations;
- Internal loan review and classification systems;
- Independent internal audit, appraisal, and credit reviews;
- External audits or examinations; and
- Management's corrective action plans.

The depth and scope of the internal control system will vary with the size and structure of the institution. However, both preventive and detective controls are necessary to ensure that LPM objectives are achieved and to provide reasonable assurance that the institution's capital is not placed at risk. Several components of internal controls are discussed in other portions of this publication, including business and capital planning, policies and procedures, risk parameters, and loan underwriting standards.

Delegations of Authority

The board of directors has ultimate responsibility for the conduct of the institution's affairs. A major element of that responsibility is determining what authorities and powers the board must retain and then establishing appropriate levels of delegation to management for the remaining areas of operation. In the area of credit operations, the board must ensure that lending authorities are established and maintained at levels that effectively control risk exposure, yet are not so restrictive as to impede the lending function or operating efficiency. Boards need to carefully balance risk exposure with the cost of internal controls, staff development, efficiency of operation, and service to borrowers.

Meeting the credit needs of the customer while maintaining operating efficiency is a key business objective that must be balanced with sound lending decisions that protect the institution's capital. The aggregate depth, experience, and capability of the institution's management and staff should form the basis for the credit authorities that are extended to senior management and to the loan committee through board policy. Management, in turn, must consider the knowledge, skills, tenure, and experience level of each staff member when developing the appropriate individual level of authority. The more complex, higher risk, and larger credits should be reviewed and approved by those with the highest levels of delegated authorities in the institution.

The appropriate delegation of credit authority is an effective internal control mechanism that can limit an institution's exposure to risk from unsound loan decisions. Boards should establish delegated lending authorities in a well-conceived, constructive, and sound business manner to avoid undue risk exposure. Additionally, the board must have an understanding of and confidence in management's capacity to identify and control risk through loan decisions, agreements, and servicing. Delegation is deemed appropriate when it successfully matches the institution's risk-bearing ability and the staff's experience, tenure, and competence with the loan size and complexity that the staff members are best suited to handle. From the board's perspective, delegation of lending authority must be considered on both an institutional and individual basis. The following are some of the areas of an institution's operations where boards should consider how delegation of authority would be implemented:

- Loan Committees — A loan committee, which uses group decision making, can be an additional and effective control over the lending operations. Depending on institution staffing, the loan committee should be structured to enhance the credit decision-making process by bringing in additional expertise and management perspective. The committee's participation in the lending function is based on the authority delegated by the board. This participation can vary from acting on every credit decision to acting on only credit decisions with greater complexity, risk exposure, and visibility. As an internal control element, a loan committee can be very effective in establishing the board's credit philosophy and ensuring compliance with the board's plans and policies.

- Asset-Liability Committees — An asset-liability committee (ALCO) could be established to monitor and direct asset-liability management and interest rate risk issues that are important to the institution's overall financial safety and soundness. The size and complexity of the institution will dictate the structure of this group and will determine the level of expertise required. The board should control the authorities delegated to the ALCO and establish the level of reporting requirements from the ALCO back to the board.

- Performance Standards and Evaluations — Staff performance plans and periodic performance reviews function as internal controls to ensure that board direction, objectives, and delegations are effectively implemented and results are achieved. Therefore, the performance standards that are established should be consistent with the authorities granted and the lending policies and plans of the institution. Appropriate performance standards hold management and lending staff accountable and thus greatly increase the chances that plans and policies will be effective and that desired results will be attained. Below the board level, accountability rests with senior management, such as the chief executive officer and the chief credit officer, who supervise and control the lending staff.

- Compensation and Incentives — Staff salary, compensation, and incentive plans must also be closely tied to the individual delegations of authority and performance standards. However, these programs must be carefully crafted to appropriately emphasize and recognize both the quality and the growth of the loan portfolio. Boards must ensure that lending officials and staff are not improperly rewarded for achieving growth objectives through the addition of marginal or poor quality credits that place the institution's capital at risk. In addition to portfolio quality and growth, timely risk identification and reporting should be included as a key performance standard. The institution's board and management should use the lending staff's performance standards and appraisal process to emphasize and recognize that early risk identification and reporting is an important key for timely corrective actions and preservation of portfolio quality.

Risk Identification Systems

Timely identification of risk in the loan portfolio is critical to the overall effectiveness of LPM and directly affects the institution's safety and soundness. Maintaining and reporting accurate risk ratings and classifications on loan assets is a critical control to ensure effective LPM and protection of the institution's capital. The institution must establish a dynamic and reliable internal loan review and classification process. Material changes in performance or conditions that affect the loan's risk exposure and classification should be adjusted when known and should appropriately reflect credit risk through the institution's information systems and reporting processes. Typically, the assigned loan officer has the greatest knowledge and familiarity with the individual credits, plus ongoing interaction with the borrower through loan transactions. In these types of circumstances, the loan officer holds first-line responsibility and must be held accountable for ensuring that the current loan classification reflects the borrower's existing condition, performance, and risk profile.

Assessing and managing loan risk has always been critical to the success of a lending institution. Many tools, including the Uniform Classification System, described in the *FCA Examination Manual*, Section EM 320, have been devised to assist in these tasks. Traditional risk assessment and loan classification systems have centered on five categories of loan quality which are: (1) acceptable, (2) other assets especially mentioned, (3) substandard, (4) doubtful, and (5) loss. Additionally, an institution should link loan pricing with the loan quality classifications. Pricing decisions should form a direct link between the institution's financial performance and its ability to assess and manage loan risk.

As the institution becomes larger and more complex, more sophisticated credit risk-rating analysis has become essential for the well-managed institution. The proper risk rating of loans allows the board and management to establish strategic and operational goals for the institution and make necessary adjustments as economic and loan performance conditions change. Therefore, rating systems must continually be able to evaluate and track the credit risk both in individual loans and in the entire portfolio.

A properly structured risk-rating system can accurately estimate the risk of loss within the institution's loan portfolio. However, the skill, experience, and use of sound judgment by credit personnel remain primary factors for accurate risk assessment. Effective risk identification is accomplished when the risk-rating system is followed and credit personnel consider the major components of risk rating: the identification of both borrower risk and transaction risk. Borrower risk is the risk of loss that is driven by factors intrinsic to the individual borrower, such as the borrower's financial condition, business stability, history, and past repayment performance. Transaction risk is the risk that is associated with the terms, conditions, and structure of the credit transaction, such as the length of terms, liquidating versus underlying collateral, and loan covenants.

Many System institutions and large commercial banks have established and implemented risk-rating systems that use multiple-tier rating categories (or grades). These risk-rating categories or grades can characterize all borrowers according to the level of risk the credit poses to the institution. Each category or grade should have a written, standardized definition that is accepted and used by all credit personnel. While there are no regulatory mandates for the categories or grades of an institution's risk-rating system, an 8- or 10-point grading scale, similar to the ones described in the Robert Morris Associates 1994 publication, *A Credit Risk-Rating System*, has seen increasing use and acceptance by System institutions. FCA expects each institution to develop, implement, and maintain a system to monitor and control the credit risk appropriate for its portfolio. The accurate assignment of risk ratings or grades requires all credit personnel to exercise prudent judgment, common sense, and sound credit principles, regardless of the institution's formal risk-rating system.

Therefore, at a minimum, each System institution should have a risk-rating system that:

- Uses a common framework for assessing loan risk according to definitions in Section EM 320 of the *FCA Examination Manual*;
- Maintains uniform definitions for all loan risk categories, which are consistently used by all credit personnel;
- Identifies loans the institution seeks to pursue, those to retain, and those to be disposed or reduced;
- Establishes the basis for appropriate loan pricing; and
- Determines the level of servicing and monitoring required for individual loans and specific loan portfolio segments.

Internal Credit and Appraisal Reviews

The internal credit and appraisal review process is one of the most important internal control functions in portfolio management. To emphasize the importance of this process, FCA regulation 12 CFR 618.8430 requires each institution to establish a policy that includes direction for the operation of a program to review and assess its assets. The review function and the reliability of the reported data contribute to the institution's overall safety and soundness.

An effective internal credit review (ICR) program is critical for the board to monitor asset quality, compliance with policies and procedures, and the adequacy of lending policies and procedures. These periodic reviews should be sufficiently frequent and have adequate scope to establish the reliability of the institution's reported asset classifications, the adequacy of the allowance for loan losses and collateral valuations, and the effectiveness of credit administration. In addition to evaluating compliance with lending policies, procedures, laws, and regulations, the ICR should assess internal controls over the credit function, the status of corrective actions on previously identified weaknesses, and the causes for material deficiencies or adverse trends.

The internal audit plan and ICR program should provide for periodic portfolio and collateral appraisal reviews by qualified personnel who are independent of the credit and appraisal functions and who report results directly to the board. Resource constraints may prevent smaller institutions from supporting either a comprehensive program or full-time reviewers. In these instances, the board should consider other alternatives, such as using employees on a part-time or rotational basis or contracting with outside reviewers.

Another key component of the ICR program is management's response to noted deficiencies and corrective actions and plans that are developed to address the conditions or weaknesses that have been identified through the review process. These responses and plans should be presented to the board for review and approval. The board should ensure that appropriate follow-up is completed so that planned corrective actions are effective in resolving the identified weaknesses.

Risk Parameters

Board policies should clearly define risk parameters that are specifically tailored to the institution's lending environment. Risk parameters are limits on the levels and types of risk and lending practices that are acceptable and that fall within the institution's risk-bearing ability. These parameters are often expressed in terms of a specific risk or in terms of the loan volume in a particular risk category in relation to the institution's capital, risk funds, or both. Therefore, establishing risk parameters is a component of the institution's control system, which flows from its planning process. Risk parameters should be adjusted as appropriate after a careful review of the internal and external factors affecting the institution.

Loan Portfolio Objectives

Strategic portfolio planning is a major segment of the institution's overall business and capital planning process and a primary component of effective portfolio management. Through the mission statement and an analysis of internal and external factors, the strategic planning process should define portfolio goals and objectives. This planning establishes a framework for directing and controlling lending operations to achieve plan objectives. Strategic planning, at a minimum, should develop four basic portfolio objectives: (1) quantified numerical targets for portfolio quality, (2) composition of the portfolio, (3) growth, and (4) profitability.

Quality

Portfolio quality objectives should clearly define expectations for new loan originations and loan renewals and should determine which loans enter or remain in the portfolio. The institution should use its loan underwriting standards to control the asset quality and monitor trends in individual loans, portfolio segments, or the entire portfolio. Quality objectives can be modified to initiate desired changes in portfolio quality. If quality objectives are tightened and if the institution becomes more selective in the new loans it accepts or the loans it renews, loan quality improves, and portfolio risk exposure is reduced over time. Conversely, as these objectives are eased or as the institution approves an increasing number of loans with exceptions to underwriting standards, portfolio quality declines, and the potential for loan deterioration and risk exposure increases.

Composition

In conjunction with the board's risk parameters, portfolio composition objectives control the quality and level of portfolio risk concentrations within a specific industry or geographic region. For example, loan-underwriting standards can be specifically tailored to meet the institution's composition objectives for managing portfolio concentrations in new or special loan programs or within individual industries or commodities. Composition objectives can be tightened or eased in response to changing conditions or risks to adjust the flow and quality of loan volume that is accepted or maintained within each portfolio segment. Once commodity or industry concentrations within the portfolio reach the board's risk parameter for the institution, board and management may consider selling participating interests in loans to other institutions to maintain business development and loan relationships while distributing the risk.

Growth

Portfolio growth is a specific objective that each institution should address. In that regard, growth objectives must clearly consider market conditions and the level of competition faced by the institution. The characteristics and quality of loans that can be approved to achieve desired loan growth must be balanced with the institution's credit expertise and its risk-bearing ability.

Profitability

Attaining portfolio profitability objectives depends on the institution's loan-pricing policies that effectively relate the costs of funding, originating, and servicing individual loans with the loan's quality and inherent risk. As a result, loan-pricing and portfolio profitability depends on consistent assessment of loan quality against the numerical standards that are considered necessary for continuing viability.

Loan Underwriting Standards

Loan underwriting standards are established by the board, and the institution's lending staff should operate in compliance with these standards. Any exceptions to the standards generally must be supported by compensating strengths in the individual loan's credit factors, approval controls above delegated levels, or both. Additionally, FCA regulation 12 CFR 614.4150 requires that each institution establish loan underwriting standards for the various loan products and purposes for which funds are advanced.

The institution's credit procedures link and complement its credit policy and should be consistent with the approved underwriting standards. Credit procedures detail how credit policies will be implemented and define actions to be followed if exceptions to the underwriting standards are to be authorized. Credit procedures often detail the ancillary lending controls that may be needed in specific situations or lending circumstances to reduce and price any risk in the portfolio commensurate with the capital base of the institution. Another key focus of the institution's credit procedures is to outline what actions will be taken to maintain compliance with established underwriting standards. The controls over compliance with underwriting standards that are used in portfolio management will help determine if the institution has taken on an acceptable level of risk.

Boards should ensure that loan underwriting standards adequately and individually address each of the major commodities or industries financed by their institution. Adopted standards should be commodity or industry specific and should be developed based on industry studies or analyses that depict the financial condition and the operating and performance levels achieved by the most successful producers or operators in that industry. As a result, the specific standards developed for the individual industry or commodity will then reflect the characteristics that have determined success in that commodity group. As such, the standards will differentiate by industry, based on the unique characteristics of that industry. For example, standards for capital requirements would vary considerably between commodity producers growing one or two crops per year versus those producing and generating revenues throughout the year.

Board-approved underwriting standards are indispensable to the safe and sound capital planning and portfolio administration in all institutions. Underwriting standards delineate the minimum level of creditworthiness for individual loans and the risk-return margin acceptable to the board. Similarly, standards ensure that loans that are originated or purchased through participations comply with applicable laws and FCA regulations. If the institution specifies creditworthiness through standards, capital is better insulated from unsafe and unsound lending conditions.

Underwriting standards clearly define, in measurable terms, the desired credit criteria for granting acceptable loans. Acceptable loans may be categorized under three key areas: (1) creditworthiness, (2) documentation and file completeness, and (3) legal and policy compliance. The appropriate evaluation of these three areas before loans are booked will reduce loan losses and will be more effective than the best loan workout skills that are used after a problem loan has been advanced. Therefore, underwriting standards should include the following:

- Assessment of the loan's purpose and associated repayment program (primary and secondary);
- Evaluation of the major loan credit factors — character, capacity, capital, condition, and collateral;
- Evaluation of loan legality;
- Determination of the economic benefits (risk-return) to the institution;
- Assurance that speculation is prohibited; and
- Assurance that loans originated are within the institution's area of expertise.

Once these components are assessed, the institution may weight the scoring of the components in accordance with its perceptions of importance. Regardless of the process chosen, an institution must determine and report loans that do not meet or comply with accepted loan standards as defined by the board. The board should be provided periodic reports detailing loans that are not in compliance with standards. Additional reports by commodity risk class, price, size, branch location, etc., could also be provided to delineate a pattern of practice and implement corrective actions.

Loans

The heart of an institution is its loans. Agricultural lending is the principal business activity for every System institution, and loans are its major source of revenue. Conversely, loans also represent the greatest source of risk to the institution's safety and soundness, and they have been the major cause of losses and institutional failures. Because of their predominate importance to the existence and success of the institution, the assets within the loan portfolio continually warrant the highest and best management skills and the most effective tools and processes to manage and control the opportunities and inherent risks.

Management Information System

An institution's loan portfolio management system and its internal control system depend on an adequate management information system (MIS). An adequate MIS is one that provides sufficient, accurate, and timely information on the condition, quality, and performance of the loan portfolio to enable board and management to make informed and prudent decisions on credit extensions, controls, and risk exposure. With technological advancements continuing at a rapid pace, the number, variety, and complexity of available loan products and the size and composition of loan portfolios have escalated. In some institutions, the MIS capabilities have not kept pace with these dynamic changes nor with the increased need for more effective loan portfolio management. Therefore, the board and management must periodically assess the information needed to effectively lend and manage in this changing credit environment and must evaluate the adequacy of its MIS to provide that needed information in an accurate and timely manner.

Components of the MIS

Each institution must have an MIS capable of providing sufficient information, data, and reports to identify and monitor all primary business and credit risks. The minimum components for MIS are a comprehensive loan accounting system and a general ledger system that accurately tracks and reports the institution's financial condition and operating results. Standard accounting and regulatory reports are necessary to assist the board and management in fulfilling their responsibilities. While the composition and format of portfolio management reports may vary, every MIS should routinely report on the financial condition and performance of the institution and on the related quality of its loan portfolio.

To achieve portfolio objectives, a comprehensive MIS is necessary to support the internal control system, to measure compliance with loan underwriting standards, and to identify and manage portfolio risk. As a critical component of portfolio management, an MIS, at a minimum, should have sufficient components and capacity to provide for the following:

- Systems Integration — The MIS should be capable of accepting multiple data entries to effectively integrate borrower financial and credit information with the loan accounting system. The information system should also have the capacity to generate standard and customized detailed management reports based on queries of portfolio characteristics.

- Current and Accurate Data — Internal controls should provide reasonable assurance that MIS data is accurate, updated, and maintained. Credit procedures should provide detailed and specific guidance for calculating loan underwriting standard ratios to ensure consistent and comparable data throughout the portfolio and over consecutive time periods.

- Integration With Capital Planning and Allowance for Loan Losses — An effective MIS should be linked to and facilitate the institution's process for periodically analyzing and determining the allowance for loan losses and capital adequacy. MIS information and summary reports on the loan portfolio, including compliance with underwriting standards, should be regularly extracted to determine loss exposure (probable, potential, or remote possibility) based on credit quality, collateral position, and other measurable portfolio risks.

- Compliance With Underwriting Standards — The MIS should identify and report each loan's compliance with the approved underwriting standards (where standards are quantifiable) and clearly and continually report exceptions that fall outside the underwriting standards. The system should have the capacity to summarize and report portfolio noncompliance on a routine basis and to query for customized reports on portfolio segments.

- Loan Pricing — Sufficient loan pricing information should be included in the MIS to permit periodic evaluations of pricing in relation to credit risk factors. Additionally, the MIS should measure whether or not loan pricing decisions result in the building of capital as risk in the loan portfolio changes.

- Risk Monitoring — The MIS should be an integral part of strategic and business planning. To effectively monitor portfolio risk, institutions should have a loan accounting system that incorporates risk parameters, loan underwriting standards, and interest rate assignments with the collection and analysis of borrower financial data. The risk parameters established for portions of the portfolio that require greater scrutiny should be incorporated in the MIS and routinely monitored.

Monitoring

A reliable and comprehensive reporting process should be established through board policy. Reporting is essential for maintaining an effective portfolio management program. The institution's reporting mechanism should provide the board with reasonable assurance that lending operations and activities are being carried out in accordance with their direction, delegations, and objectives. In addition, board reporting should provide continuing evidence that loan portfolio objectives in the business plan are being achieved and that the institution's capital is not placed at unnecessary risk.

One of the key elements that boards should address in developing institution policies is the establishment of management reporting requirements. The policy should generally describe what is to be reported to the board, the frequency and content of the reports, and the individual(s) responsible for report preparation. In most institutions, the chief executive officer has overall responsibility for reporting to the board, and the chief credit officer generally has primary responsibility for the development and accuracy of reports provided for portfolio management areas. In establishing reporting expectations, the board must adequately consider both the need and sources of the desired information. Useful loan portfolio data can originate in either the existing automated information systems or can be compiled through manual processes. Periodically, the board should review the quality, content, and type of information provided to ensure that it complies with board reporting criteria and satisfies the board's need for information and control.

Therefore, the board must define and periodically adjust its reporting requirements to ensure that it receives adequate information to monitor portfolio performance in relation to board objectives and goals as well as to the changing conditions and risks in the lending environment. The frequency and timeliness of reports should also be clearly established to delineate board expectations for monthly versus quarterly reports and for individual transaction reporting versus summaries of performance and planned-to-actual comparisons.

While reporting requirements may vary with the size, structure, and diversity of lending operations, adequate board reporting requirements become increasingly important in proportion to the level of delegations granted to management and staff. As the board has ultimate responsibility for the affairs of the institution, sufficient reporting systems must be in place to keep the board adequately informed of loan actions taken. On a routine basis, management should summarize and report all loan actions completed under delegated authority. More important, the board should ensure that management reports all loan actions that are exceptions to policy or loan underwriting standards or that are outside the board's delegated authorities. These exceptions to board direction warrant a higher degree of review as, individually or collectively, they expose the institution's capital to increased risk.

Evaluation

Portfolio Stress Testing Through the MIS

An effective MIS should be flexible and capable of providing advanced analysis and reporting. As institutions are exposed to increasing or different levels of risk, such as significant commodity concentrations or price volatility, more sophisticated MIS capabilities and customized reporting are warranted. To ensure effective and timely portfolio and risk management for the more complex institutions, the MIS should have the capability to conduct portfolio stress testing and to predict portfolio risks under a variety of changing conditions or within a combination of alternative scenarios.

In those institutions, the MIS should facilitate an analysis of the impact of changing economic or industry conditions on the quality and inherent risk in the existing loan portfolio. For example, any stress-testing model should enable testing of changes in key variables that can affect a borrower's repayment capacity, cash flow, or financial condition. At a minimum, stress-testing models should be able to predict the impact on a loan or group of loans. That impact could be the result of changes in the following:

- Interest rates;
- Production costs and operating expenses;
- Commodity prices;
- Production levels; and
- Collateral values.

Periodic stress testing enables the institution to assess the borrower's capacity to absorb financial stress and to identify what level of stress causes the loan to move outside the underwriting standards for that particular loan or commodity. As a result, the institution could quickly and effectively forecast the impact on borrowers from either potential or projected changes within a given industry, commodity, or portfolio segment. The changes in the individual borrower's income stream, financial condition, or both can then be aggregated across the portfolio or a portfolio segment to project potential changes in reported loan classifications and asset quality.

Stress testing enhances management's ability to identify and control risk and to plan, prepare, and respond to real and potential portfolio threats. Stress testing is particularly critical where an institution cannot control the key variables that create risk in its lending environment. For example, four of the five variables cited above that can affect a borrower's financial performance and condition are outside of the institution's control. As the institution controls only the borrower interest rate, loan repayment and institution capital remain especially vulnerable to uncontrollable variables. However, the institution can control the level of risk it is willing to assume in any lending environment by adjusting its loan underwriting standards. If the variables change and production costs increase in a certain commodity or industry, the institution should be able to determine how much of that industry it is willing to finance based on its current risk-bearing ability.

MIS and stress-testing models should be capable of categorizing risk in relation to the portfolio's compliance with loan underwriting standards. The models should easily identify loans that are clearly "low" or "high" in relation to standards. Loans that fall in the middle require additional judgment or analysis by management to fully assess risk. A reliable MIS with the capacity to effectively address the above areas provides reasonable support for the portfolio management functions, maintains effective internal controls, and helps ensure the institution's safety and soundness.

Risk Evaluation

A common approach to portfolio risk analysis involves analyzing the present composition and performance of the existing loan portfolio. This analysis may be accomplished by "slicing and dicing" portfolio information and does not require any stress testing beyond the current period. Typical goals may be to determine the number and volume of loans outstanding by predetermined categories, such as loan quality classes, primary commodity, branch office, loan officer, size of loan, or various financial or performance ratios.

The loan portfolio "slicing and dicing" gives an overall characterization of the institution's principal assets, including the concentration of loans in specific ranges or commodity groups. Further, this method allows assessment of the current performance of key portfolio segments. For example, the current financial position of all dairy farmers in the portfolio can be specifically examined. This examination would involve sorting out all loans listing dairy as the primary commodity and then determining the number and amount of dairy loans in specific ranges for such key ratios as debt-to-asset and term debt coverage or other ratios used as loan underwriting standards.

While the analysis described above deals with individual loans or portfolio segments, another approach to portfolio analysis is based on the institution's current performance and its capital position. This type of analysis requires data from the institution's current or projected balance sheet, income statement, and the sources and uses of its funds statement. A primary goal is to assess the institution's profitability relative to its risk exposure. A number of ratios and other indicators assist the board and management in assessing portfolio risk and returns. These risk indicators should focus on the capitalization, asset quality, and liquidity of the institution and its financial statements. Profitability indicators should focus on operating efficiency and rates of return. Each institution should tailor its performance measures to the conditions and environment particular to the institution. However, measures of performance for the FCA's Financial Institution Rating System are identified in the March 2, 1998, Informational Memorandum from the Chief Examiner, and provide guidelines in the areas of capital, earnings, asset quality, and liquidity.

20

Conclusion

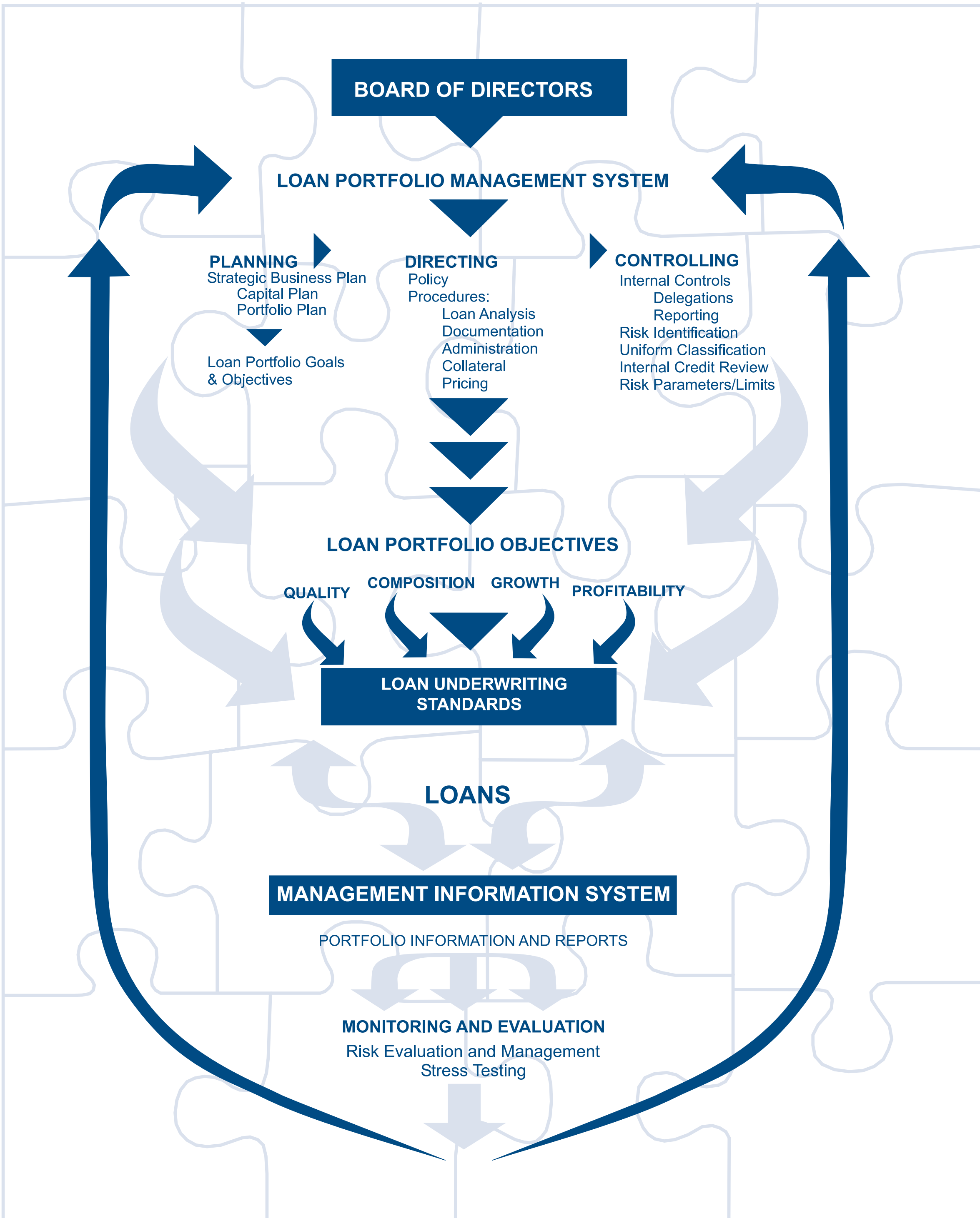
An institution's success depends on the proper assessment and measurement of its primary earning assets — loans. Neither the assessment nor any measurement can be deemed a reliable or reasonable predictor of future performance unless the institution accurately identifies and manages the credit risk in its portfolio. Therefore, an LPM system that encompasses all the processes used by the board and management to adequately plan, direct, control, monitor, and evaluate the institution's lending operations is an essential component of a well-managed institution. Just as the pieces of the LPM puzzle are laid out in this publication, loan portfolio management is solved through the careful and prudent implementation of each respective component or, figuratively speaking, each puzzle piece. Further, properly established and implemented loan underwriting standards form the linkage between individual loan assets and portfolio objectives.

When properly established, approved, and implemented, all components of an effective loan portfolio management system, working together, provide the controls for the institution to maintain its operations in a safe and sound manner. The LPM puzzle is framed as a diagram on the following page to demonstrate how each component may be linked to fit into an effective management system that any institution can use.

Thus, as each System institution analyzes its lending environments and establishes its loan portfolio management systems, the recognition of lessons from the past and use of historical credit analyses must be coupled with realistic projections of future scenarios. The Agency anticipates the increasing use of stress-testing models for individual loans, loan portfolio segments, and for the institution itself. Establishing comprehensive risk evaluation and monitoring systems by using pro-forma analyses for the institution's overall performance should help the Farm Credit System profitably compete in the 21st century.

21

Framing the Puzzle—Diagram for Effective Loan Portfolio Management



Copies Are Available From:
Office of Congressional and Public Affairs
Farm Credit Administration
1501 Farm Credit Drive
McLean, Virginia 22102-5090
703-883-4056

2500/1198