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Overview

Earnings management focuses on board and management effectiveness in generating sound and sustainable earnings. To that end, business and financial plans should include effective strategies for generating and retaining sound earnings. Reporting systems should be sufficient for the board and management to understand earnings trends and drivers, track results of strategies, and make informed decisions. A strong cost governance culture should exist that ensures efficient operations. In addition, the loan pricing framework should generate sufficient profits while balancing credit quality and growth objectives. Inadequate past or projected earnings performance is typically indicative of weaknesses in one or more of these management areas or the institution's underlying business model. The internal audit program should provide the board with reasonable assurance that earnings management is sound and functioning as intended. Since earnings retention is a key aspect of capital management, refer to the *Capital Management* section of the Examination Manual for further examination considerations.

Since net interest income is the predominant source of earnings, loan pricing is a critical function of earnings management. Loan pricing generally refers to the process of establishing interest rates and fees on loans. Loan pricing decisions directly impact net interest income, which is the principal source of earnings at Farm Credit System (System) institutions. Loan pricing also significantly influences loan portfolio composition and growth, as well as exposures to various risks (e.g., credit, interest rate, and liquidity risks). Therefore, the board and management should ensure the loan pricing program is consistent with and promotes overall strategic business objectives and initiatives. Pricing policy, procedures, and plans must provide clear direction to the pricing framework. In addition, the pricing model should allow for differential pricing that incorporates the pricing factors unique to each loan. In particular, the pricing model should ensure pricing is sufficient to cover the costs and risks unique to each loan and achieve earnings objectives.

Pricing at System institutions is based largely on a funds transfer pricing (FTP) framework that is typically managed by the funding banks. FTP is a process for allocating and assigning funding costs to loans, transactions, and profit centers. For example, for each loan originated by an association, the rate charged by the bank to fund the loan equals the transfer rate plus the bank's spread. Similarly, the bank's cost of funding an investment purchase is its transfer rate. The transfer rate generally reflects the bank's cost of issuing debt to fund loans and investments plus the cost of hedging interest rate risk (IRR) and liquidity risk (regardless of whether it is actually hedged).

FTP is an essential tool for banks and associations to make informed decisions and manage earnings. In particular, accurate and reliable FTP processes enable these institutions to:

- Establish a funding cost for individual loans and transactions, including the direct loans to associations.

- Lock in a spread on each loan or transaction and transfer IRR and liquidity risk to a central management function (e.g., the treasury or mismatch unit), which can improve efficiencies and facilitate risk management.
- Measure profitability by loan, loan product, loan officer, business line, and profit center.
- Identify how IRR and liquidity risk affect earnings.
- Make informed strategic decisions on loan pricing, asset and liability mix, product offerings, and resource allocation.

Since FTP is a fundamental component of profitability measurement and management, the board and management should ensure FTP is consistent with and supports overall strategic business objectives and initiatives.

While the FTP examination guidance in this section is largely written from the perspective of how it applies to banks, it is also applicable to associations that do not use the bank's FTP program. For example, block-funded associations do not match-fund each loan but instead order blocks of debt from the bank to fund various segments of loans. This guidance applies in part to block-funded associations because they must implement their own FTP framework to assign funding costs to individual loans.

Examination Procedures and Guidance

General

1. Plans & Strategies:

Evaluate financial plans and determine if strategies are sufficient to ensure sound earnings.

Guidance:

Financial plans and earnings strategies should be sufficient to ensure earnings are sound and sustainable. Good planning begins with a board philosophy that supports sound earnings. Earnings goals should be consistent with that philosophy, and strategies should be sufficient to achieve earnings goals. In addition, financial plans and strategies should be tailored to the unique risks, range of business activities, operating environment, and challenges facing the institution. For example, an institution with weaknesses in the quantity or quality of earnings or that faces significant competitive threats should have more clearly defined strategies and detailed action plans than an institution with fewer threats and sound earnings.

Evaluative questions and items to consider when examining earnings plans and strategies include:

- **Earnings Philosophy: Is the board's earnings and loan pricing philosophy consistent with safe and sound business practices?** Board philosophy on generating and retaining earnings should be documented in the business plan, as discussed in the *Earnings* section of Appendix A in [The Director's Role](#). Earnings philosophy is evidenced primarily by projected return on assets, composition of income, competitive position, and long-term earnings goals. Earnings philosophy should be questioned if the business plan projects relatively low long-term returns on assets or increasing reliance on lower quality income sources. Earnings philosophy is also a function of loan pricing and how cooperative benefits are provided to members. For example, the board may maximize interest rate spreads within competitive constraints and then return patronage refunds to members at yearend after capital needs have been satisfied. Such a practice is consistent with an *earn-it-first* philosophy, facilitates

strong financial performance, and promotes the institution's capacity to withstand adversity. This practice is also viewed favorably by external parties, particularly rating agencies and investors, and promotes the System's access to funding, liquidity, and third-party capital. Conversely, the board may provide a cooperative benefit through lower interest rate spreads and loan pricing, which results in lower net income and patronage refunds to members. If taken to an extreme, this philosophy may produce, over time, a loan portfolio with low margins and insufficient flexibility to generate and retain the earnings necessary to provide for loan losses, capitalize growth, redeem allocated equities, and protect against financial adversity. This approach can also negatively impact loan portfolio fair value and marketability, may result in predatory pricing allegations by competitors, and generally requires higher capitalization to offset the related risks. Refer to Farm Credit Administration (FCA) Bookletter [BL-062](#) for additional guidance on evaluating strategies and risks related to loan pricing and structure.

- **Earnings Strategies: Are earnings strategies and contingency plans clearly defined, realistic, and sufficient to ensure sound earnings and achievement of earnings goals and projections?** The board and management should establish reliable strategies for generating sound quantity and quality of earnings and achieving earnings goals. The strategies should be well defined and addressed in the business plan. In addition, strategies and related action plans should be realistic, consistent with the operating environment, and sufficiently detailed to ensure successful implementation and effectiveness. Contingent strategies should also be established that evidence the board's strong commitment to achieving earnings goals under different scenarios or circumstances (e.g., stress scenarios). These strategies should include clear trigger points on when they will be implemented. Indicators of potential concerns with an institution's earnings strategies include:
 - Inadequate or marginal earnings (or projected earnings) in relation to risks, business needs, or FCA benchmarks.
 - Inadequate or declining earnings quality.
 - Lack of clear, realistic earnings strategies and specific action plans.
 - Inadequate stress testing to identify potential threats to earnings.
 - Lack of contingent strategies.

The *Business Strategy & Planning* Examination Manual topic and the *Quantity and Quality* procedure guidance in the *Earnings Adequacy* topic provide additional examination guidance in assessing earnings projections and strategies.

2. Monitoring & Reporting:

Determine if monitoring and reporting processes are sufficient to enable effective earnings management and pricing decisions.

Guidance:

Monitoring and reporting systems should be sufficient for the board and management to make informed decisions. In particular, reporting should enable the board and management to understand earnings levels and trends, their causes, and effectiveness of earnings strategies. Understanding the potential effects of loan pricing decisions is especially important because pricing is typically the primary driver of earnings. Reporting should also be sufficient for the board to understand emerging conditions and risks that could prevent the institution from achieving earnings goals.

Evaluative questions and items to consider when examining monitoring and reporting processes include:

- **Reporting Content and Timeliness: Is reporting timely and sufficient for the board and management to monitor and understand the adequacy of earnings and effectiveness of strategies on an ongoing basis?** Reporting should typically occur monthly, although the frequency and detail can vary based on the institution's size, complexity, range of business activities, and financial performance. Reporting should generally address the following:
 - Trends in earnings quantity and quality.
 - Progress in implementing earnings strategies and action plans.
 - Variances to financial projections and earnings targets, including the causes of variances.
 - Loan pricing and structuring, particularly:
 - Loan pricing and structuring practices for the overall portfolio and by portfolio segment (e.g., by branch, loan officer, loan product, or risk pool), as well as any major changes in pricing assumptions.
 - Market pricing data on competitors and its impact on the pricing program.
 - Compliance with policies, procedures, and the pricing model.
 - Operating expense and efficiency measures.
 - Significant threats and risks to earnings.
 - Profitability of individual products or business lines.
 - Clarification of potentially misleading performance measures.
 - Potential changes, if any, in funding bank direct loan pricing or patronage programs.
 - Funds transfer pricing (FTP) (banks and block-funded associations only). For example, reporting should include changes to the underlying FTP assumptions and the overall framework, as well as changes in market conditions that affect FTP. Reporting should be sufficiently granular to enable management oversight of the FTP framework.
- **Reporting Clarity: Are reports easy to understand and interpret while providing meaningful and complete information?** Reports should be clear, understandable, accurate, and meaningful. While reporting should be complete, this does not necessarily imply that reporting should be voluminous. Meaningful information should be readily apparent.
- **Reporting Controls: Do internal controls ensure reporting is complete and accurate?** Internal controls should ensure reporting is accurate, complies with policy requirements, and is not misleading. Examples of internal controls over reporting include post review, audit, reconciliation, automation, dual verification, and separation of duties.
- **Loan Pricing Oversight: Does the institution have an effective governance structure for loan pricing?** An asset/liability management committee or other senior management group should be responsible for overseeing loan pricing. This group should ensure policies and procedures are appropriate, monitor the loan pricing framework, and ensure the framework is periodically calibrated and aligned with markets. The group should also monitor the impact of pricing decisions, compliance with the pricing model (including pricing exceptions), and the impact of pricing on achievement of earnings and business objectives.
- **FTP Oversight (banks and block-funded associations only): Does the institution have an effective governance structure for FTP?** An asset/liability management committee or other senior management group should be responsible for overseeing FTP. This group should

ensure policies and procedures are appropriate, monitor the FTP framework, and ensure it is periodically calibrated and aligned with markets. The group should also monitor and manage earnings and earnings volatility in the central FTP management function (e.g., treasury or mismatch unit), including the key drivers of these earnings (e.g., IRR, liquidity risk).

3. Operating Efficiency:

Evaluate management's effectiveness in controlling expenses and ensuring efficient operations.

Guidance:

Operating expenses significantly affect earnings performance. An institution with lower expenses generally has greater ability to deal with adversity and declines in revenues and can offer more competitive loan pricing. As a result, the board and management should control expenses while maintaining sound infrastructure and quality of business operations. The primary objective when examining operating efficiency is to determine the effectiveness of cost governance. The analysis of operating efficiency should begin with evaluating expense levels and their impact on earnings performance. Trends in overall expenses and in each expense category should also be evaluated.

Evaluative questions and items to consider when examining operating efficiency include:

- **Operating Expense Levels and Trends: What are the current levels, trends, and causes of trends in operating expenses and related ratios? Are revenues sufficient to cover expenses and generate adequate earnings?** The efficiency ratio and the ratio of operating expenses-to-average total loans are useful measures when analyzing expense levels. While the Financial Institution Rating System benchmarks provide general guidelines on the efficiency ratio, an assessment of operating efficiency should consider the institution's unique earnings capacity and business model. In particular, the adequacy of revenue to cover expenses and generate adequate earnings should be a key consideration. Comparing operating expense measures to peer groups is also useful, but examiners should consider differences in business models, asset and product mix, and district infrastructure. For example, banks may differ in the services provided to associations and the methods for recouping the costs of these services.
- **Sources of Expenses: Are the primary sources of expenses reasonable and appropriate? Are changes in these sources significantly affecting operating efficiency?** Operating costs are primarily comprised of the following expense categories: employee salaries and benefits; occupancy and equipment; purchased services; information technology and data processing; director compensation; and Farm Credit System Insurance Corporation premiums. Employee salaries and benefits are typically the largest operating expense component, although other sources can also be significant. Examiners should evaluate changes in each source of expense, and the causes of those changes. The analysis of operating expense trends should also consider any extraordinary or nonrecurring sources, which can significantly affect and temporarily distort expenses. In addition, the interrelationship between expense and revenue levels should be considered. For example, substantial investments in technology and staffing might cause a temporary increase in operating expenses, but may be needed to support longer-term increases in business activity, revenues, or efficiencies.
- **Operating Expense Growth: Is the operating expense growth rate reasonable and consistent with revenue growth?** Increases in operating expenses are normal for a growing and thriving institution. Expense increases are not typically a concern if revenues are

growing at the same or higher rate. However, the return on assets and efficiency ratio will weaken if the rate of growth in expenses exceeds revenue growth. Comparisons of operating expense growth to revenue growth should consider and adjust for nonrecurring items and low-quality revenue sources. For example, if an association receives special patronage refunds from its funding bank, it can distort revenue growth and hide emerging concerns with expense growth. In addition, even if revenue growth exceeds expense growth, high expense growth should not be ignored. If operating expenses are consistently growing at an unusually high rate, the institution may not be able to sustain the high asset or revenue growth required to cover it.

- **Cost Governance: Are the board and management effectively controlling expenses and ensuring efficient operations?** Institutions should maintain a strong corporate culture for effectively managing costs. The culture should be evident in areas such as strategic planning; operating expense levels and trends; processes for tracking and controlling expenses by business line; efforts to eliminate unnecessary costs and unprofitable business lines; the standardization, automation, or optimization of business processes (e.g., loan origination processes); and board reporting. In particular, the business plan should address operating expenses and establish effective strategies for maintaining or improving efficiency. An FCA Informational Memorandum on [Farm Credit System Operating Expenses](#) dated July 22, 2014, addresses the importance of these cost governance areas. Additional considerations include:
 - Short-term tactical cost reduction efforts (e.g., reducing headcounts) should be balanced with longer-term strategic cost initiatives, such as streamlining and standardizing processes or focusing costs on higher margin business lines. Cost reduction that indiscriminately reduces costs equally across all departments or too deeply may end up cutting the infrastructure essential to support operations, future growth opportunities, or mission fulfillment.
 - Adopting a flexible operating cost structure enables management to respond quickly and effectively to changing business conditions and opportunities. For example, increasing the percentage of variable costs or outsourcing certain noncore functions could give management more flexibility to adjust the institution's cost structure as conditions change.
 - Cost advantages from economies of scale may be achieved through expansion, shared services, or merger. The increased efficiencies from these initiatives can be significant for smaller institutions, but such benefits typically accrue at a diminishing rate as institution size continues to increase.
- **Infrastructure: Are efforts to control expenses and operate efficiently appropriately balanced with the infrastructure needed to support operations?** While expense control is an essential aspect of cost governance, it should be balanced with the infrastructure needed to support operations. Considerations include:
 - The institution should ensure it is adequately investing in staffing, technology, internal controls, mission fulfillment, and other organizational needs for its unique business model. In particular, a reasonable balance should exist between efficiency and the infrastructure required to maintain sound loan portfolio administration and credit quality. An unusually low efficiency ratio could indicate essential controls and infrastructure have been sacrificed for expense control.

- Operating efficiency may justifiably decline during periods of significant credit quality deterioration. During such periods, management may need to temporarily increase staffing and other expenses to effectively service and resolve problem assets. In addition, such growth in expenses may occur at a time when revenues and earnings are declining due to increasing loan losses and nonaccrual loans, thereby magnifying the impact on efficiency measures.
- **Cost Allocation: Is the allocation of expenses among operating subsidiaries, business lines, and other cost centers appropriate and adequately supported?** Cost allocation is the process of assigning operating expenses to subsidiaries, business lines, departments, products, projects, or other cost centers in the most accurate and fairest way possible. If operating expenses vary among subsidiaries, products, or business lines, then expenses should be differentiated and allocated to each. Cost allocation may be necessary to determine the fees and interest rates that should be charged; measure profitability of each product or business line; understand and effectively manage operating costs; and make strategic decisions. Institutions may also need to allocate expenses among operating subsidiaries (e.g., production credit association versus federal land credit association) for federal tax purposes. Such allocations must comply with Internal Revenue Service regulations and guidance, and be fully justified and supported to help minimize reputation risk that could jeopardize the System's beneficial tax treatment. The methods for allocating costs can vary, although the method used should be documented and fully supported. The cost allocation method and related studies should be periodically updated, particularly when structural changes occur or business processes are modified.

4. Audit:

Determine if the institution conducts an effective audit (scope, reporting, and followup) of pricing and earnings management.

Guidance:

The internal audit and review program is a key mechanism for ensuring earnings management processes are functioning effectively and in compliance with regulations and policies. The internal auditor or other qualified, independent party should review the adequacy of earnings management to ensure compliance with applicable criteria. The audit risk assessment and scope should address earnings management topics, and audit frequency should be commensurate with the complexity of the institution's operations and risk profile. A reliable audit program provides the board reasonable assurance that earnings management is sound and earnings reports to the board are complete and accurate.

Evaluative questions and items to consider when examining earnings management audits include:

- **Audit Coverage: Is there periodic audit or review coverage of earnings management?** Audit or review coverage and frequency should be appropriate relative to risks, changes in the operating environment, regulatory requirements, and periodic testing needs. Coverage should also be consistent with the institution's risk assessment results and annual audit plan.
- **Scope and Depth: Are audit or review scope and depth sufficient to conclude on the adequacy, completeness, and timeliness of earnings management processes?** The scope should cover key processes and controls within the area being audited or reviewed. The depth of work should be sufficient to determine if internal controls are functioning as

intended and regulatory requirements are met. The scope and depth of coverage should be consistent with the approved audit or review plan and engagement contract (if applicable). If audit or review work deviated materially from the original planned scope, the board (or Audit Committee, if so delegated) should be notified of the reasons for the change. Specific items that should be considered in the audit or review scope include:

- Financial planning process.
- Board reporting systems.
- Operating expense management and governance.
- Loan pricing program, including items such as:
 - Compliance with pricing policy and procedures, including processes for monitoring and managing exceptions.
 - Board and management oversight of loan pricing.
 - Pricing model and framework.
 - Consistency of loan pricing strategies and related employee incentive programs with strategic business objectives.
- Funds transfer pricing (FTP), including an evaluation of whether it is accomplishing its intended purposes (banks and block-funded associations only).
- Model validation and compliance with the model validation policy for all significant earnings management models (e.g., loan pricing and FTP-related models), consistent with guidance in FCA's Informational Memorandum on [Computer-Based Model Validation Expectations](#) dated June 17, 2002. Audits are especially important when models are revised or replaced.
- Fraud-related threats and vulnerabilities, as well as anti-fraud controls.
- **Reliability of Results: Did FCA identify any concerns with audit and review reliability?**

Evaluate the reliability of internal audit or review work by comparing the results to FCA's examination results in this area. This comparison often includes FCA testing of transactions that were covered in the internal audit or review (transactions are often loans or loan applications, but may include other types of transactional activity, as well). In addition to the audit or review report, examiners should request and review the workpapers and hold discussions with the auditor to obtain a more thorough understanding of work completed. Often, auditors and reviewers will complete line sheets, flowcharts, control matrices, standard work programs, workpaper forms, or other relevant documents when conducting work. Workpapers should adequately document the work performed and support the final report. In addition, any proforma work programs, workpapers, or other tools should be accurate and sufficiently thorough. If there are material weaknesses identified by examiners that are not identified by internal audits or reviews, examiners should assess the underlying reasons.
- **Reports: Do internal audit reports sufficiently communicate earnings management review results and recommendations, if applicable?** Examiners should consider the following when evaluating the audit or review report:
 - Is the report prepared in accordance with the institution's guidelines?

- Is an executive summary or overview included to provide the board with a general conclusion on audit or review results?
- Is the report accurate, concise, supported, and timely in communicating the audit or review objectives, scope, results, conclusions, and recommendations?
- Are conclusions and recommendations realistic and reasonable, with material and higher risk issues clearly identified and prioritized?
- Are conclusions and recommendations supported by convincing evidence and persuasive arguments (condition, criteria, cause, and effect)?
- Does the report conclude whether the institution adheres to policies, procedures, and applicable laws or regulations, and whether operating processes and internal controls are effective?
- Does the report address potential vulnerabilities to fraud, if applicable?
- **Corrective Action: Are management responses to audit findings in this area reasonable, complete, and timely? Have corrective actions been effective?** Audits and reviews are only effective if corrective action is taken to remedy the weaknesses identified. As such, there should be a reasonable, complete, and timely management response to the audit or review report. In some cases, management commitments and agreements or any areas of disagreement are documented in the report or in a separate memo or tracking system. If corrective actions are not resolving the issues or concerns (based on repetitive audit findings, FCA findings, etc.), examiners should further investigate the reasons. For example, this could indicate the audit or review did not sufficiently identify the underlying causes or materiality of weaknesses, sufficient resources are not being directed toward corrective actions, or weaknesses exist in the institution’s corrective action process, including board oversight of the process.

Examination Procedures and Guidance

Loan Pricing & Structuring

1. Policy & Procedures:

Determine if policies and procedures provide adequate guidance and parameters over the loan pricing and structuring process.

Guidance:

Policies and procedures must provide clear direction on the loan pricing and structuring framework. These policies and procedures are especially important due to the significant impact loan pricing has on achieving strategic business objectives. Evaluative questions and items to consider when examining policies and procedures include:

- **Compliance: Do policies and procedures on loan pricing and structuring comply with FCA Regulations and follow other FCA direction?** Policy and procedure requirements are addressed in FCA Regulations, a Bookletter, and an Informational Memorandum:

- FCA Regulations require institutions to adopt written policies and procedures for prudent loan pricing and structuring. More specifically:
 - FCA Regulation [614.4150\(f\)](#) requires all institutions to address loan pricing practices in their lending policies and procedures.
 - FCA Regulation [614.4155](#) states the board must set interest rates or changes to interest rates either on a case-by-case basis or through an interest rate plan. The interest rate plan must set loan pricing policies and objectives and identify the parameters within which management may set and adjust pricing. This regulation also states that the pricing policy and plans must be reviewed by the board on a continuing basis, and when reviewing and approving the business plan. Such reviews are needed to ensure the pricing policy and plans remain consistent with and help promote strategic business objectives.
 - FCA Regulation [614.4160](#) requires that policies address differential interest rate programs, if used.
- FCA's Informational Memorandum on [Loan Pricing by Farm Credit System Institutions](#) dated February 11, 1999, reinforces regulatory requirements.
- FCA Bookletter [BL-062](#) expects institutions to develop policies and procedures to ensure the following:
 - Loan pricing and structure decisions are consistent with the board's portfolio strategy and business plan objectives.
 - Appropriate risk-based premiums are incorporated into differential loan pricing programs.
 - Loan product mix provides sufficient flexibility to adjust interest rates and returns.
 - Liquidity and salability of the loan portfolio is adequately considered in loan pricing and structuring practices.
 - Pricing on all loan products and structures appropriately considers credit risk over the term of the loan.
 - Loan pricing practices provide sufficient margins for patronage refunds and financial uncertainties.
 - Loan pricing and structuring practices meet statutory and regulatory objectives.
- **General Direction: Do policies or procedures provide adequate direction to loan pricing and structuring?** In addition to the minimum requirements and expectations discussed above, policies or procedures should address all other significant aspects of loan pricing and structuring, including reporting requirements that enable the board and management to monitor pricing practices and the impact of pricing on achievement of earnings and business objectives. The following should typically be addressed in policy or procedures:

- The board’s loan pricing and structuring philosophy and objectives, which should be consistent with overall business goals, objectives, and plans.
 - Delegations of responsibility for administering the policies, plans, and procedures and approving exceptions to the pricing model and framework.
 - A description of internal controls that limit exceptions to policies, procedures, and the pricing model.
 - Reporting expectations that allow the board and management to oversee pricing and structuring practices, understand the impact of pricing decisions, and monitor compliance with policies, procedures, and the pricing model.
 - Types of loan pricing products, structures, and convertibility options offered, including qualifying criteria for each, if applicable.
 - A description of the pricing model, including processes for measuring risk premiums and the spreads required to cover operating costs and meet profit objectives.
 - Processes for monitoring the competitive environment and incorporating results into the pricing framework.
 - Description of loan fees, including the process for maintaining a fee schedule.
 - Special pricing processes where the standard array of loan pricing, products, and structures do not meet the borrower’s needs.
- ***Incentive Programs and Procedures: Do incentive programs and procedures promote sound loan pricing?*** Institutions may implement incentive programs that provide bonuses and other incentives to officers for achieving new business and loan volume goals. If implemented incorrectly, such programs can incent officers to lower spreads, originate high-risk loans, and underprice risks. Incentive programs should emphasize the pricing needed to balance all strategic business objectives. In particular, incentive programs should factor in loan quality and risk-adjusted profitability measures to ensure new loan volume is of proven quality and profitability over sustained periods. Management should review the effectiveness of incentive programs at least annually.

2. Pricing Model:

Determine if the pricing framework (model) incorporates appropriate loan pricing factors and risk-based pricing principles.

Guidance:

An institution’s pricing model should consider and incorporate all relevant loan pricing factors. Key factors include the cost of funds, operating costs, earnings objectives, inherent loan risks, loan structure, and competitor rates. These factors should be reasonably balanced in loan pricing methodologies. For example, a pricing methodology that focuses on matching or beating competition just to get the business may not ensure the rate charged is sufficient to cover inherent risks or achieve earnings objectives. Conversely, a methodology that focuses on a markup over costs to achieve earnings objectives may not adequately consider inherent risks or the competitive environment. In addition, a model that focuses only on spread may incent lending staff to offer the

lowest possible rate (while still clearing the institution's minimum pricing standard or hurdle rate), which can adversely affect net interest margin and earnings. A good pricing model will help the institution attract high quality customers and achieve portfolio growth objectives while ensuring spreads are sufficient to cover risks and meet earnings goals.

A differential pricing model should be implemented that ensures interest rates and fees reflect the unique costs and risks of specific loans and loan types. In particular, the pricing model should incorporate risk-based pricing principles. Risk-based pricing is the alignment of loan pricing with risks in the loan, particularly credit and interest rate risks. FCA Regulation [614.4160](#) authorizes differential pricing so long as it achieves equitable rate treatment within categories of borrowers (i.e., it adheres to the principle of nondiscrimination). Equitable treatment does not require the same pricing for all borrowers. Instead, it refers to consistency in pricing among borrowers with similar loan products, structures, costs, risk profiles, and competitive factors. FCA Bookletter [BL-062](#) provides additional criteria for differential pricing.

Pricing models should provide lending staff with the ability to price and structure loans in a manner that meets both the borrower's and institution's needs. For example, pricing models could quantify the impact of various deal components, such as costs of alternative collateral coverage, loan guarantees, loan amounts, and loan structures or terms (e.g., amortizations, maturities, variable versus fixed rates, conversion and prepayment options, and embedded caps). With such information, the loan officer can create a custom deal that works for the borrower yet still meets the institution's pricing objectives. Pricing models require constant review to ensure that all pricing factors remain appropriate and are adjusted as conditions change.

Evaluative questions and items to consider when examining a pricing model include:

- **Cost of Funds: Are funding costs accurately captured in the pricing model?** For most associations, the cost of funds for each loan is determined through the bank's funds transfer pricing (FTP) system. Specifically, the cost of funds to the association simply equals the funding bank's transfer rate plus the bank's spread. If the association does not use the bank's FTP system, it may need to implement its own FTP system to determine the cost of funds for each loan. At these associations, examiners should use the procedures and guidance in the *Funds Transfer Pricing* section.
- **Operating Costs and Earnings Objectives: Are spreads and fees on loans sufficient to cover operating costs and achieve earnings objectives?** Loan pricing should result in an interest rate spread and fee income that are sufficient to cover all operating costs and achieve earnings objectives. The business plan identifies earnings objectives and should address the general pricing required to achieve these objectives. Operating costs considered in pricing should include each loan's unique origination and servicing costs along with an allocation of the institution's general operating expenses. Loan pricing should be differentiated if these costs differ significantly among the various loan portfolio segments. For instance, servicing costs and efficiencies can vary by loan size, loan type (e.g., operating versus real estate loans), or loan origination system (e.g., credit scoring models). To facilitate accomplishment of these objectives, processes should exist that enable management to measure and monitor the impact of pricing decisions on earnings. For example, the loan pricing model could be integrated into the overall financial planning model.
- **Credit Risk Premiums: Does loan pricing include accurate and sufficient premiums for credit risks?** One of the most important principles in loan pricing is to align pricing with credit risk. The pricing of credit risk should be sufficient to compensate for the risk to

earnings and capital. Inaccurate pricing of credit risk can result in a risk-return imbalance, lost business due to overpricing lower risk loans, or underpricing and closing higher risk loans (i.e., adverse selection). Key considerations in establishing credit risk premiums include the following:

- The ability to align loan pricing with credit risk is highly dependent on the ability to accurately distinguish among loans and loan portfolio segments with differing risk levels. Risk ratings are key drivers of many loan pricing models, although other factors should also be considered for differentiating risks. Examples of such factors include industry and concentration risks, guarantees, collateral risk, credit score, loan type, loan purpose, and the reliability of borrower-supplied financial information. In addition, results from loan portfolio stress tests and economic capital models can provide information on credit risk sources and levels, which can be incorporated into pricing.
 - The allowance and provisions for loan losses should be considered in credit risk premiums. Numerous quantitative and qualitative factors are considered in determining allowance needs, such as loss history, risk ratings, environmental conditions, lending practices, and risk identification processes. Loan pricing should generate sufficient net interest income to cover provisions for loan losses and still meet earnings objectives. For example, during periods of high loan growth or increasing credit risk, significant provisions for loan losses (and increased capital accumulation) are often necessary and should be considered when establishing credit risk premiums.
 - Credit risk premiums should be accurately established at loan origination or when interest rate commitments and spreads are locked in. The institution cannot subsequently adjust risk premiums when credit classifications deteriorate or other risks emerge, unless loans reprice and loan agreements allow for a spread adjustment. In addition, any penalties imposed when an event of default occurs may not fully compensate for the resulting loss exposure on the loan.
 - Risk-adjusted pricing adequately compensates for only the normal, acceptable ranges of credit risk. Credit risk can reach a point where pricing cannot be high enough to compensate for it. In particular, no pricing level will compensate for a bad loan that turns out to be uncollectible.
 - Models for calculating credit risk premiums range from relatively simple to complex, such as using economic capital models to measure risk-adjusted return on capital (RAROC). RAROC models allocate capital to loans based on estimated risk, and then compute the pricing required to achieve a targeted risk-adjusted return. RAROC models can be used to discourage higher-risk loans even though they may generate the highest spread. Such models can be complex and are highly dependent on accurate assumptions and inputs (see *Economic Capital* procedure guidance under the *Capital Management* Examination Manual topic).
- **Interest Rate Risk Premiums: Does loan pricing include accurate premiums for hedging IRR, particularly risks from embedded loan options?** Loans frequently contain borrower options that can expose the institution to IRR. For example, borrowers may have the right to prepay the loan, the option to convert the loan's interest rate to a floating or fixed rate, or an option to lock in a rate on a loan commitment before closing. In addition, a loan may contain

an embedded interest rate cap. If these option risks or other types of IRR are not eliminated through FTP match funding, premiums should be incorporated into loan pricing to cover the costs of hedging and managing these risks. Premiums should be differentiated based on each loan's unique IRR exposure. The *Funds Transfer Pricing* section contains examples of how these premiums may be computed.

- **Loan Structure: Does the loan pricing model appropriately consider loan structure?** Loan structure generally refers to loan type, maturity, amortization, repricing frequency, fixed versus variable pricing, pricing index, borrower options, and loan conditions. Certain structures affect profitability and risks and therefore should be incorporated into loan pricing. Examples include the following:
 - Loans with especially long maturities pose unique risks. Uncertainty inherently increases as the term of the loan increases, particularly uncertainty with borrower repayment ability, environmental conditions, funding costs, and the institution's financial needs. Loan pricing should include a premium sufficient to compensate for this risk. Alternatively, the loan can be structured to mitigate this risk. For example, a long-term loan structured with a shorter-term repricing opportunity can mitigate this risk, provided that processes exist to accurately reassess the borrower's risk profile and other pricing components at the repricing date. Such repricing requires, at minimum, reliable and updated borrower financial information.
 - The structure of principal and interest payments can affect credit risk in the loan as well as the loan's profitability. For example, credit risk increases when loans require interest-only payments for a prolonged period, or when repayment terms are inconsistent with borrower cash flows or loan purpose. In addition, profitability of loans is significantly reduced if borrower payments on a revolving line of credit are applied first to principal (as opposed to accrued interest). Pricing premiums may be needed in these situations.
- **Competitive Adjustments: Does the pricing model adequately consider the competitive environment?** The pricing model should allow for consideration of competitor interest rates in making pricing decisions while ensuring that such competitive adjustments still result in an adequate spread to cover risks, costs, and earnings objectives. In this regard, the pricing model should optimize pricing within competitive constraints and provide the information needed to decide when it makes sense to adjust pricing to compete for a loan. Maintaining efficient operations and effective risk management can help keep pricing at competitive levels by reducing the premiums charged to cover costs and risks. Refer to the *Competition* procedure for additional guidance.
- **Negotiated Rates or Pricing Model Exceptions: Do sufficient processes exist to monitor and control exceptions to the pricing model and fee structure?** Institutions may allow for exceptions to the established pricing model and fee structure by allowing negotiated rates and overrides. These options are most common on large, high-quality loans where borrowers typically have many financing choices and shop around for the lowest price. Granting staff the autonomy and ability to make exceptions to the pricing model may be needed in a competitive environment. Nonetheless, over time, the impact on earnings and achievement of other strategic business objectives can be significant. Internal controls should include monitoring and controlling the frequency of exceptions, and determining the impact on achieving earnings and strategic business objectives. The frequency of exceptions can also provide important insights into the pricing model and management processes. For

example, if exceptions are frequent, it could indicate problems with the pricing model or controls over exceptions.

- **Pricing Model Controls: Are controls sufficient to validate and prevent unauthorized changes to the pricing model?** Change-control procedures should exist that prevent unauthorized changes to the pricing model. Examples include user-access controls and approval requirements for changes to the model, formulas, and assumptions. A log should be maintained that documents changes to the model. In addition, the pricing model should be periodically validated consistent with guidance in FCA's Informational Memorandum on [Computer-Based Model Validation Expectations](#) dated June 17, 2002. *Note: This review should focus on validation of the specific model being used; refer to the Enterprise Risk Management procedure in the Corporate Governance topic for examining model validation policies and programs in general.* Pricing model controls should be commensurate with the complexity of the model. Models that are highly complex have an increased possibility of error and are more difficult to validate. Such models require controls that are more robust.

3. Pricing Strategies:

Evaluate loan pricing and structuring strategies and determine if these strategies are consistent with, and help achieve, business and loan portfolio objectives.

Guidance:

Loan pricing and structuring strategies are a key driver of earnings and play a fundamental role in achieving business objectives. FCA Bookletter [BL-062](#) communicates important factors each institution should consider when developing loan pricing and structuring strategies. As noted in that Bookletter, these strategies should be well-developed, documented, and available for board review. The board and management should review the strategies periodically, and should increase the frequency of review if the operating environment or loan portfolio mix warrants additional attention.

Evaluative questions and items to consider when examining loan pricing and structuring strategies include:

- **Strategic Business Objectives: Are loan pricing and structuring practices consistent with, and do they help promote, business plan objectives?** Loan pricing is a critical tool for achieving and balancing the board's overall strategic objectives. For example, loan pricing is a key driver of earnings and can help balance loan growth with the institution's ability to capitalize growth. Loan pricing and structure decisions can also significantly influence portfolio composition, including concentrations, types and quality of loans originated, risk-return tradeoff, and the types of markets targeted. As a result, when dealing with strategic challenges and initiatives, management should consider how loan pricing and structuring affects and can help achieve goals. Management should review loan pricing and structuring practices at least annually to ensure they remain consistent with strategic objectives. Management should also remain disciplined in maintaining margins and adjusting pricing practices, when needed, to achieve strategic objectives.
- **Flexibility: Do loan pricing and structuring strategies provide sufficient flexibility?** At times, management may need to adjust pricing and spreads to respond effectively to financial adversity, maintain adequate earnings, or build capital. Interest rates and spreads that appear sufficient during strong economic times may prove to be insufficient during economic downturns or adversity. Loan pricing and structuring strategies should provide the

board with the flexibility to respond to such changing conditions. Considerations include:

- Pricing flexibility can be improved by promoting loan products and structures that have frequent repricing opportunities, using risk-based pricing, and maximizing spreads within competitive constraints.
- While spreads on existing fixed- and indexed-rate loans typically cannot be adjusted, a loan portfolio that contains a large volume of these loans should still produce a relatively stable and adequate stream of earnings over time if priced and funded properly. However, pricing flexibility may be inadequate if these loans have long-term maturities combined with aggressive pricing and thin spreads that provide minimal margin for adversity. Declining interest rates that result in reduced returns on lendable equity could exacerbate this situation.
- Administered rate loans are a unique loan product that offers significant pricing flexibility. These loans have a variable rate and spread the institution can adjust at any time, with proper notification, regardless of changes in market interest rates. With administered pricing, institutions can quickly adjust spreads on this portion of the portfolio, which can have a major and immediate impact on portfolio profitability. However, administered pricing also demands greater pricing discipline and skillful management of reputation risk. Spreads and profits can significantly decline if management does not immediately adjust rates when funding costs increase. Moreover, reputation risk could rise if changes in administered rates do not mirror changes in market interest rates. Accordingly, the board and management should have significant discipline and internal controls (e.g., automation, delegated authorities, prior approval, and reporting) over administered rates to ensure rates are changed in a timely and appropriate manner.
- **Loan Salability: Do loan pricing and structuring strategies promote loan portfolio liquidity and salability?** Loan pricing and structuring has a significant impact on the institution's ability to sell loans readily. For example, if loans are underpriced or have an unusual or higher risk structure, significant discounts could be required to sell the loans in the secondary market. While System institutions generally hold loans they originate until maturity, the salability and market value of the portfolio are still important considerations in maintaining sound capital and liquidity. As a result, management should periodically analyze the impact of loan pricing and structuring strategies on loan portfolio liquidity and market value.
- **Teaser Rates: Are pricing strategies that employ teaser rates appropriately managed?** At times, institutions may price loans with an introductory rate that is below market rates for a defined period, after which the rate increases to the full market-indexed rate. The objectives of these teaser rates may be to attract new borrowers, increase loan volume, target a specific industry, or entice borrowers to select a desired loan type. A teaser pricing strategy carries unique risks that should be carefully managed. Teaser rates can have a significant adverse impact on spreads and profitability, particularly if borrowers prepay or refinance at the end of the teaser period or have embedded interest rate caps on their loans. In addition, borrower repayment capacity can decline when the teaser period ends, which will increase credit risk. Credit risk is further increased if only the highest quality loans prepay and refinance at the end of the teaser period. As a result, limits should be placed on the size of the teaser rate program, with appropriate analysis and board reporting on risks, returns, and how the program is being managed.

- **Pricing to meet Mission Objectives: Do loan pricing and structuring strategies promote achieving the System’s public mission objectives?** The System’s statutory mission is to provide sound and dependable credit and related services to agriculture and rural America. Pricing programs and strategies can be an important part of supporting and promoting this mission. For example, FCA Regulation [614.4165](#) requires institutions to establish programs to provide sound and constructive credit and services to young, beginning, and small (YBS) farmers, ranchers, and producers or harvesters of aquatic products. To meet the special credit needs of YBS borrowers, institutions may provide more flexible interest rates and fees or customized loan structuring and underwriting, as described in FCA Bookletter [BL-040](#). Refer to the *Mission Compliance Examination Manual* topic for more information and guidance.

4. Competition:

Evaluate processes for monitoring the competitive environment and incorporating the results into loan pricing and structuring.

Guidance:

Institutions should monitor competitor pricing and structuring to maintain a proper balance between remaining competitive in the marketplace and generating earnings. Such information should be incorporated into the pricing model and methodology, as discussed previously. Evaluative questions and items to consider when examining processes for monitoring competition include:

- **Competitor Surveys: Does management conduct surveys or have other processes to monitor the competitive environment and incorporate results into loan pricing and structuring?** While competitor studies are not specifically required by FCA Regulations, timely knowledge of competitors’ loan pricing is a sound business practice that is an essential part of any institution’s loan pricing system. FCA’s Informational Memorandum on [Loan Pricing by Farm Credit System Institutions](#) dated February 11, 1999, stated that in most cases, support for loan pricing decisions should include an analysis or survey of competitors. The extent of competitor surveys may vary depending on the competitive environment in which the institution operates. The best surveys are updated frequently and include loan rates and fees for various loan products, structures, embedded options, and collateral requirements. It can be difficult to obtain exact information on competitor pricing because advertised rates are often adjusted to reflect the risk profile and needs of specific borrowers. Likewise, information on competitor pricing provided by prospective borrowers may not be entirely accurate. In addition, it can be challenging to identify the numerous local, national, and international creditors that provide agricultural and rural financing in the institution’s lending territory. As a result, while surveys provide beneficial information, they may need to be used as only a general market indicator.
- **Intra-System Competition: Does the institution work cooperatively with other System institutions in meeting the credit needs of eligible customers?** Competition among System institutions for the same loans can result in a decline in interest rate spreads, reduced earnings, and relaxed loan conditions. If taken to an extreme, intra-System competition can threaten safety and soundness and harm the institution’s long-term value to its members, marketplace, and public mission. Intra-System competition can emerge through lending in over-chartered territories, lending outside of the institution’s chartered territory, or purchases of loan participations. If such lending is significant, the board should monitor the

impact of intra-System competition, particularly the impact on interest rate spreads, earnings, loan conditions, and general underwriting practices. The board should also ensure such lending complies with FCA Regulations, and work cooperatively with other System institutions (including strategic partnering, where possible) in meeting the needs of customers.

- **Predatory Pricing: Does the institution avoid predatory pricing strategies?** Predatory pricing generally refers to the violation of antitrust laws by underpricing loans below cost in an attempt to lure borrowers and drive competitors out of the market. In general, predatory pricing allegations and antitrust claims are difficult to prove because charging low interest rates is frequently viewed as normal competition that benefits the public. In addition, FCA's Informational Memorandum on [Loan Pricing by Farm Credit System Institutions](#) dated February 11, 1999, clarified that [Section 1.1\(c\)](#) of the Farm Credit Act of 1971, as amended (the Act), does not prohibit System institutions from charging interest rates below competitors. Notably, Sections [1.8\(b\)](#), [2.4\(c\)\(2\)](#), and [3.10\(a\)](#) of the Act state that it shall be the objective of System lenders to set interest rates and other charges at the lowest reasonable cost on a sound business basis taking into consideration the lender's cost of funds, necessary reserves, and the cost of providing services to its members. Nonetheless, the System as a government-sponsored enterprise has a responsibility to not only avoid predatory pricing practices, but to avoid the appearance of predatory pricing. In addition, while institutions understandably price loans at levels that will attract and retain borrowers, loans should always be priced at levels sufficient to cover all costs and inherent risks as well as meet earnings objectives. Examinations should focus on loan pricing that appears to be outside prevailing market interest rates to identify the reasons for such practices, evaluate compliance with policies, procedures, and the pricing model, and determine if pricing is consistent with safe and sound banking practices.

5. Transaction Testing:

Evaluate pricing on a sample of loans, with a focus on compliance with the pricing policy and model.

Guidance:

The loan pricing and structuring examination should be supplemented as necessary with transaction testing conducted as part of FCA's loan review. This testing should assess areas such as:

- Compliance with the policy and procedural framework.
- Correct use of the pricing model.
- Appropriateness of pricing and fee exceptions.
- Effectiveness of internal controls.

This includes assessing reliability of the audit and review function and accuracy of board and management reports on loan pricing and structuring. When selecting the sample of loans to examine, consider the following:

- Loans across different types and segments of the portfolio.
- Loans with interest rates that appear to be below the pricing model or prevailing market interest rates, or where teaser rates have been used.
- Loans reported with pricing exceptions, with a focus on the justification for the exception.
- Loans with varying credit risk characteristics, with a focus on credit risk premiums.
- Loans not match funded through funds transfer pricing, with a focus on IRR premiums.

Note that FCA's loan review coverage of loan pricing and structuring under this examination procedure may overlap somewhat with work completed under the *Transaction Testing* procedure in the *Credit Administration* topic.

Examination Procedures and Guidance

Funds Transfer Pricing (banks and block-funded associations only)

1. Policy & Procedures:

Determine if policies and procedures provide adequate guidance for the funds transfer pricing process.

Guidance:

Policy and procedures must be sufficient to direct, control, and identify expectations on funds transfer pricing (FTP). The board and management should ensure the FTP framework is clearly described in policy and procedures. Evaluative questions and items to consider when examining FTP policy and procedures include:

- **General Direction: Do policy and procedures provide adequate direction on FTP?** As discussed in the *Policy & Procedures* guidance in the Loan Pricing & Structuring section, several regulations require institutions to have policy and procedure direction on loan pricing, which would include FTP. These consist of FCA Regulations [614.4150\(f\)](#), [614.4155](#), and [614.4160](#). In addition to this regulatory guidance, the following are examples of specific areas that are fundamental to the FTP process and should be addressed in policies or procedures:
 - Types of bank and association loans, investments, and other transactions priced under the FTP model.
 - Delegations of responsibility for administering the policy or procedures.
 - Bank process for communicating FTP rates to affiliated associations.
 - Process for establishing FTP rates before introducing new products.
 - Internal controls that ensure FTP rates comply with policy and procedures.
 - Process for handling exceptions to policy and procedures, including the special pricing of loans that are not supported by the standard FTP model.
 - Extent to which the bank's FTP process insulates affiliated associations from IRR and liquidity risk, including controls for monitoring and limiting mismatched funding at associations (may be included within other policies and procedures).
 - Board and senior management reporting requirements.
- **FTP Framework: Is the FTP framework clearly described in policy or procedures?** An FTP framework (model) typically includes the following key processes, which should be clearly described in policy or procedures:
 - Assigning cost of funding to loans.
 - Determining premiums for embedded options, risks, and terms.
 - Administering special pricing of loans that are not priced through the standard FTP model.
 - Establishing a bank spread that considers the bank's operating costs and profit

- objectives.
- Allocating association equity.

2. FTP Model:

Determine if the funds transfer pricing framework (model) incorporates appropriate pricing factors.

Guidance:

Banks should use an FTP model to determine funding cost for all significant products and business lines at the bank and its affiliated associations. Block-funded associations should also use an FTP model to determine funding costs for products and business lines. For example, transfer prices should be established on retail loans, purchased participation loans, nonaccrual loans, and investments. An FTP model process is essential to clearly understand the spreads and profitability of each transaction and business line and to make informed decisions.

While several FTP methodologies exist, the matched-maturity method (also known as the matched-rate method) is generally considered the preferred approach in the financial industry. Only this method can lock in an interest rate spread on each loan and transfer IRR and liquidity risk to a central treasury or mismatch unit, leaving only the customer's credit risk with the lending or business unit. The matched-maturity method establishes a unique transfer rate on each loan at origination (or at the conversion or renewal date) that mimics changes in the customer's interest rate and therefore freezes the spread throughout the life of the loan. The matched-maturity method also enables management to produce detailed reports and information on spreads by loan, loan officer, branch, or other measure. Robust automated applications are typically required to administer the matched-maturity FTP methodology and process the numerous daily transactions.

The process of establishing a transfer rate on an asset involves several steps. Determining the marginal cost of debt (MCD) is the first and most critical step in establishing a transfer rate. Once the MCD is established, premiums are added that reflect the cost of hedging the options embedded in the asset, any other sources of IRR, and contingency liquidity risk. The final transfer rate is then equal to the MCD plus risk premiums.

An error in the FTP methodology could have significant ramifications. It could result in mispricing risks embedded in loans, inaccurate measurement and reporting of transaction profitability, misleading incentives for product selection and portfolio composition, misalignment of risk-taking incentives with the institution's risk appetite, misunderstanding of earnings drivers, and decision-making that is based on incorrect information. For example, insufficient pricing for longer-term loans could incent excessive exposure to loans with higher IRR and liquidity risk.

Evaluative questions and items to consider when examining an FTP model include:

- **MCD: Does the model accurately price for the MCD?** Establishing the MCD as the base funding curve is the first and most critical step in the FTP process. MCD represents the current cost of debt used to fund the asset. Key principles for determining the MCD include the following:
 - MCD represents the interest rates prevailing at the time the loan or other asset is originated (or at the conversion or renewal date) and reflects real funding opportunities currently available to the bank. Thus, any changes in market conditions are immediately reflected in the MCD. MCD should be based on current

and readily observable market benchmarks. For example, it could be based on indications from the Federal Farm Credit Banks Funding Corporation, Bloomberg, or the Wall Street Journal. MCD should also be based on the all-in cost of issuing the debt, including the cost of derivatives for synthetic funding.

- The MCD should be based on the same pricing index as the asset. For example, if pricing on the asset is indexed to a 3-month Treasury bill rate, then the MCD should also be based on this index (if the MCD cannot be based on the same pricing index as the asset, a risk premium should be considered as discussed in later bullets).
 - Spreads for institutional credit risk should be included in the MCD so that it represents the actual cost of funding. For example, if the asset is indexed to a Treasury rate, the MCD should incorporate the credit spread to that index. If the asset is indexed to Prime, the MCD should incorporate the basis spread to that index.
 - The MCD should be based on debt that matches the asset's cash flows. For example, if all principal on an asset is repaid at the maturity date, the MCD should be based on debt that has the same maturity. More sophisticated processes are required if principal cash flows on the asset are amortizing. Ideally, the MCD for an amortizing asset should be based on the weighted average of the debt costs applied to each cash flow (i.e., an MCD is assigned to each cash flow and then averaged into an overall MCD for the loan, with the averages weighted by time and amount of cash flows). Alternatively, the MCD may be based on the weighted average of the costs of a mix of debt securities that have the same combined weighted average life (WAL) as the asset. Such debt mixes are sometimes used to approximate the cash flows of the asset. Other less-precise, short-cut alternatives include basing the MCD on the WAL or duration of the asset (e.g., with WAL, an instrument is simply assigned the MCD rate that corresponds to the point on the yield curve equal to its WAL). While WAL and duration are simpler, these alternatives understate the true MCD in most interest rate environments, and this error can significantly increase with longer maturities and steeper yield curves. If these alternatives are used, management should, at minimum, quantify the pricing error and ensure its implications are manageable, particularly incentives it creates for acquiring longer-term loans (due to underpricing long-term cash flows).
 - If the asset's cash flows (or WAL) are adjusted for prepayments when calculating MCD, the assumptions should be conservatively based on the minimum base prepayment speeds expected for the portfolio regardless of the interest rate environment. Higher prepayment speed assumptions would typically result in underpricing the cost of funds on assets that realize a slowdown in prepayment rates below the rate assumed in pricing.
 - MCD should be updated at least weekly to reflect changes in market conditions and funding costs. Ideally, it would be updated daily, especially for large loans or during times of significant interest rate volatility.
- **Prepayment Risk Premiums: Do transfer rates include adequate premiums for hedging prepayment risk?** Customers may have the option to prepay the loan early. This prepayment option can result in significant IRR, especially on long-term fixed-rate loans during periods of declining interest rates. A premium that covers the cost of hedging this prepayment risk

should be included in the transfer rate. For example, hedging costs could equal the incremental cost of the call option when issuing callable debt. Alternatively, a make-whole prepayment penalty can be assessed that offsets the higher cost of the debt that is funding the loan (i.e., the cost of reversing or defeasing the debt). Regardless of the approach, the prepayment premium included in the transfer rate should be sufficient to compensate the treasury or mismatch unit for prepayments that may occur over the life of the loan.

- **Option Risk Premiums: Do transfer rates include adequate premiums for hedging risks from other types of embedded options?** Customers may be given the right to alter the initial loan terms. For example, a customer may have the option to convert the loan's interest rate to a floating or fixed rate, or an option to lock in a rate on a loan commitment before closing. In addition, an asset may contain an embedded interest rate cap. The transfer rate should include a premium that reflects the cost to hedge these types of risks. For instance, the premium for hedging an embedded interest rate cap could equal the cost of purchasing a cap option that perfectly offsets this risk, or an option-adjusted spread model may be used to value the option.
- **Liquidity Risk Premiums: Do transfer rates include adequate premiums to cover the costs of managing liquidity risk?** The bank's costs to manage liquidity risk should be periodically measured, incorporated into transfer rates, and adjusted as market conditions and risks change. Liquidity risk premiums may vary by loan or business line to reflect the different costs and risks. Alternatively, if management considers liquidity a cost covered by the bank spread, then the spread should be readily adjusted to accurately reflect changes in liquidity costs. Examples of costs and risks that should be considered when establishing liquidity risk premiums include:
 - Cost of maintaining a liquidity reserve.
 - Inability to actually issue debt that matches assets or the MCD used in the FTP model (especially the MCD on long-term assets).
 - Significant market volatility that results in market access restrictions or uncertain funding costs.
- **Investments: Do measures of spreads on investments identify and attribute the sources of the spread?** FTP may not be used to transfer IRR or liquidity risk in investments to the treasury or mismatch unit if investments are managed by that same unit. However, determining a fully hedged matched-maturity transfer rate on investments is still important because it facilitates the attribution of spread to its sources (e.g., IRR, liquidity risk, credit risk). This attribution is key to understanding the drivers of earnings on investments, quality of those earnings, and the related risks.
- **Model Validation: Has management taken actions to minimize model risk by obtaining an independent and reliable validation of the model, assumptions, and input?** FTP frequently involves the use of models that should be validated, such as the FTP model itself and option models. In particular, option models can be very complex and rely heavily on accurate information and reliable assumptions (especially rate volatility assumptions). Effective validation practices should exist to reduce model risk, and the models should be periodically validated consistent with guidance in FCA's Informational Memorandum on [Computer-Based Model Validation Expectations](#) dated June 17, 2002. *Note: This review should focus on validation of the specific model being used; refer to the Enterprise Risk Management procedure in the Corporate Governance topic for examining model validation policies and programs in general.*

- **Special Transfer Pricing: Do appropriate transfer pricing processes exist for assets that are not priced by the standard FTP model?** FTP models support a limited set of asset pricing and structuring alternatives. If an asset has pricing or a structure that is not supported by the standard FTP model, alternative processes should exist for establishing the transfer price. Such special transfer pricing is most common with large loans to sophisticated customers and participations in loans purchased from other lenders. The primary objective of special pricing is to establish a unique transfer rate that match funds the loan and locks in a spread.

Refer to the [Funds Transfer Pricing Related to Funding and Contingent Liquidity Risks](#) guidance document prepared by other federal regulatory agencies for additional information.

3. Bank Spreads on Direct Loans (banks only):

Determine if the spreads on direct loans are sufficient to achieve bank profitability objectives.

Guidance:

Similar to establishing a spread on retail loans (addressed in the *Loan Pricing & Structuring* section), the bank should consider a variety of factors when establishing its spread on direct loans to associations. Evaluative questions and items to consider when examining the bank's spreads on direct loans include:

- **Operating Costs: Are spreads and fees on direct loans sufficient to cover operating costs?** As part of the annual business planning process, management should identify operating costs related to administering and servicing direct loans. Spreads and fee income should be sufficient to cover those costs as well as allocated bank overhead expenses.
- **Earnings Objectives: Are spreads and fees on direct loans sufficient to achieve earnings objectives?** In addition to covering operating costs, spreads should also be sufficient to achieve earnings, capitalization, and patronage refund objectives, and include an adequate cushion to weather financial adversity.
- **Spread Adjustments: Are spreads dynamically adjusted when needed to meet business objectives?** Management should readily adjust spreads on direct loans in response to changing conditions and financial needs. Such adjustments might reasonably be limited to new loan originations (or conversions and renewals) to preserve FTP's transfer of IRR and liquidity risk to the bank's treasury or mismatch unit.
- **Differential Pricing: Are spreads differentiated to reflect the unique costs and credit risks in direct loans?** Differentially pricing direct loans based on overall institutional credit risk posed by each association is considered a sound business practice. This practice compensates the bank for risk, incents sound performance, and recognizes the debtor-creditor relationship between the bank and affiliated associations. For example, banks may differentiate the spread based on performance covenants in the general financing agreement (GFA), risk rating on the direct loan, or various association performance measures. Differences in operating costs may also be incorporated into the spread or addressed through expense billings and fee income. If a bank does not use differential pricing, the examiner should determine if adequate compensating factors exist.

4. Controls Over Association IRR (banks only):

Evaluate bank processes for monitoring mismatched funding at associations and ensuring association IRR is maintained at an acceptable level.

Guidance:

A key objective of FTP is to lock in the association's interest rate spread on each asset and transfer IRR to the funding bank's treasury or mismatch unit where it can be centrally managed. This allows associations to operate more efficiently and avoid the costs of implementing and maintaining sophisticated models and systems for managing IRR. However, the degree to which FTP insulates associations from IRR can vary. On some assets, FTP may not fully hedge and transfer IRR to the bank. Also, banks may give associations the ability to intentionally mismatch the funding of assets and actively manage IRR. For example, the funding bank could give an association the ability to fund a variable rate loan that has embedded caps with an uncapped variable transfer rate. Another example of mismatched funding would be a loan indexed to the Prime rate funded by a transfer rate indexed to System discount notes. Banks with this type of FTP framework should have processes to monitor and control association IRR exposures and risk management. Inadequate controls could result in excessive risk in the bank's direct loans to associations.

Evaluative questions and items to consider when examining the bank's controls over association IRR include:

- **Mismatched Funding Sources: Under the bank's FTP framework, what are the potential sources and types of mismatched funding that can exist at associations?** Such information should help indicate the materiality of potential mismatches and the scope of bank oversight required to monitor and control association IRR.
- **Monitoring and Controls: Does the bank have sufficient processes to monitor IRR at associations and ensure it is maintained at an acceptable level?** If the bank's FTP framework enables associations to mismatch funding, then the bank should have processes to monitor and control the resulting risks. An example of a monitoring process would be reviewing reports that identify types and volume of mismatches and the related impact on association IRR. Examples of controls include requirements for associations to have sufficient IRR policy and procedures, mismatch limits, reporting, management and measurement systems, staffing, and audit coverage. Bank monitoring and control processes should be commensurate with the associations' potential IRR exposures from mismatched funding and be documented in bank policy or procedures. Delegations of responsibilities for carrying out the monitoring and control requirements should also be documented in bank policy or procedures.
- **Bank Staff Expertise: Do bank staff assigned to monitor and control mismatched funding and resulting IRR at associations have sufficient specialized expertise?** Mismatched funding at associations can result in significant IRR exposures that require complex IRR management and measurement processes. As a result, bank staff assigned to monitor and control association IRR exposures and management processes should have sufficient specialized expertise to fulfill this duty.
- **Block Funding: If an association uses block funding, does the bank have sufficient processes to ensure the association effectively measures, manages, and controls IRR?** Block funding can result in significant funding mismatches and IRR at associations. With

block funding, the association orders large blocks of debt from the bank, which are then used to fund various loan portfolio segments. For example, the association can potentially order a block of Treasury-indexed debt to fund a segment of variable and fixed rate loans. Therefore, block funding will not lock in a spread on each loan or transfer IRR to the bank's treasury or mismatch unit. An association that has significant mismatches due to block funding should implement its own FTP processes for assigning funding costs to loans, actively manage its assets and liabilities, and implement sophisticated and robust processes for managing and measuring IRR. Before approving an association's request to implement block funding, the bank should validate and ensure the association's staff is adequately trained and has specialized expertise, and all aspects of IRR management and measurement processes are sufficient to control IRR. The bank should also monitor the association's IRR exposures on an ongoing basis and establish requirements for periodic audits of IRR management and measurement by qualified personnel.