



## EM-11.2

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### Overview

The board and management of Farm Credit System (System) institutions must ensure capital is adequately managed to absorb losses and maintain long-term financial viability. Capital management begins with a sound planning process that assesses capital needs and establishes effective strategies for achieving capital goals. Reporting systems should be sufficient for the board to monitor trends in capital adequacy and the effectiveness of capital strategies. Capital distribution programs should be consistent with capital plans and support achievement of capital goals and capitalization of growth. Internal controls must be sufficient to ensure compliance with Farm Credit Administration (FCA) capital-related regulations. In addition, the internal audit program should provide the board with reasonable assurance that capital management is sound and capital reporting is complete and accurate.

### Examination Procedures and Guidance

#### General

##### **1. Plans & Strategies:**

Evaluate management's assessment of capital needs, and determine if capital goals and strategies are sufficient to ensure sound capitalization.

##### Guidance:

Capital planning is integral to ensuring sound capitalization. Good capital planning begins with an internal assessment of capital needs that includes stress testing. This assessment provides the support for establishing capital goals that are commensurate with the institution's overall risk profile and business plan. Capital goals should be sufficient to protect against adversity, survive unexpected losses, provide for growth, and ensure long-term financial viability. In addition, institutions should establish strategies that ensure timely achievement of capital goals. The board must review the capital needs assessment, goals, and strategies at least annually to ensure that sufficient capital always exists to defend against risks and meet anticipated needs.

The capital planning process should be dynamic, ongoing, and tailored to the institution's risk profile and complexity. The risk profile, range of business activities, and operating environment significantly impact the level of detail needed in capital planning. A more complex institution with higher risk levels needs a more rigorous planning process than an institution with less complex operations and lower risk levels. The System's cooperative structure is also a factor. As cooperatives, System institutions have fewer options to raise capital quickly, and most associations

build capital almost exclusively through retained earnings. As such, longer-term capital planning is critical.

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

- **Capital Needs Assessment: Did management adequately assess capital adequacy and needs?** The institution must have an internal process for assessing capital adequacy and determining how much capital is needed. The results of this assessment should be documented in the business and capital plan. The sophistication of the assessment methodology should be tailored to the institution's unique risk profile, business model, business plan, and operating environment. For example, an institution operating at low capital levels should typically complete a more robust assessment of capital needs, with evidence of its low risk exposures, strong internal controls, and other mitigating factors, than an institution with high capital levels may need. As required by FCA Regulations, a key component of the capital needs assessment is to comprehensively identify and evaluate all material risks and determine how those risks affect capital adequacy. Specifically, FCA Regulation [628.10\(e\)](#) requires that each institution assess capital adequacy in relation to its risk profile and maintain capital commensurate with the level and nature of all risk exposures. FCA Regulation [615.5200\(a\)](#) requires that the assessment address the capital needed to protect the institution against credit and other risks. FCA Regulation [615.5200\(c\)](#) lists seven specific areas that must be considered as part of the capital needs assessment when developing the capital adequacy plan. Additionally, the following are examples of other factors that also warrant consideration in the capital needs assessment:
  - Credit administration and underwriting practices
  - Concentration levels and limits, especially in high risk activities and unsecured exposures
  - Asset and loan segment correlations
  - Stress test results (discussed below)
  - Historical and planned growth
  - Sustainable and predictable capacity to build additional capital from internal sources
  - Complexity of transactions, including specialized lending
  - Quality of risk identification
  - Quality of management processes for mitigating risks
  - New business strategies, initiatives, and products
  - Economic and agricultural conditions
  - Quality, composition, and sources of capital
  - Patronage refund, dividend, and other capital distribution practices
  - Balance sheet structure, interest rate risk, and liquidity risk
  - Potential risk from affiliates
  - Special situations that could cause capital impairment or future losses
  - Supervisory requirements or enforcement actions
  - Results of economic capital modeling (refer to the *Economic Capital* procedure)
- **Stress Testing: Did the capital needs assessment appropriately consider stress testing results?** Stress testing is an important component of the capital needs assessment. While stress testing capital adequacy is not required by FCA Regulations, the Informational Memorandum on [FCA's Stress Testing Expectations for All FCS Institutions](#) dated March 4, 2010, states that institutions should use stress testing results as a means for better understanding capital adequacy in relation to the institution's risk profile. Stress tests

estimate if capital will be sufficient to survive potential stress scenarios or losses. If stress tests indicate the institution would become undercapitalized, then consideration should be given to either building more capital or taking other actions to align stress results with capital goals. While this examination guidance does not endorse or prescribe a specific stress testing method, the following are key considerations:

- Stress test scenarios should be conceptually sound, sufficiently robust to capture the significant threats to capital, severe yet plausible, and adjusted when warranted to reflect changes in the operating environment. The scenarios should also be based on documented and supported underlying assumptions, and be applied across all business lines and risk areas. Some scenarios should cover multiple years to reflect the impact of a prolonged crisis or business cycle. Stress tests should combine different scenarios where plausible. In addition, studies may be needed to support stress test assumptions (e.g., loss rates on each loan portfolio segment). Such studies should critically assess how historical patterns may significantly change in unfavorable ways during periods of severe stress. Examples of possible stress events and scenarios include:
  - Prolonged agricultural crisis (e.g., sharp changes in commodity prices, input costs, collateral values, weather conditions)
  - Acute stress on a particular asset class or credit concentration
  - Disappearance of government support programs
  - Deterioration in specialized or unsecured capital markets loans
  - Prolonged high asset growth
  - Draws on unfunded commitments and contingencies that result in losses
  - Disappearance of noncore business lines or vulnerable revenue sources
  - Operational risk
  - Counterparty default (e.g., default of largest counterparties)
  - Losses from interest rate risk and asset/liability mismatches
  - Impairment on investments, particularly unsecured investments
  - Deterioration in, or assistance to, affiliated associations (banks only)
  - Simultaneous capital and liquidity crises that cause the bank to sell investments at a loss (banks only)
- Scenarios may include reverse stress testing, which involves extreme situations that result in the institution becoming unviable or falling below minimum capital requirements. Reverse stress testing begins with an outcome (e.g., breaching regulatory capital requirements). It then identifies the extreme scenarios and tail events in which the adverse outcome can occur. Reverse stress testing can be an effective tool to recognize risk mitigation needs and identify scenarios (beyond normal expectations) that may warrant increased capital.
- The comprehensiveness of stress tests should be commensurate with the complexity, size, and scope of the institution's operations. Stress tests should be especially comprehensive for institutions operating at low capital levels.
- Effective validation practices should exist to reduce model risk and ensure reliability of stress testing models, including systems that ensure underlying data is sufficiently reliable, robust, granular, and consistent across time periods. Models used for stress tests 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.*

- **Capital Goals: Are capital goals clearly defined and sufficient to ensure sound quantity and quality of capital?** FCA Regulation [615.5200](#) requires boards to establish capital goals that ensure continued financial viability and provide for the growth necessary to meet the needs of its borrowers. Goals must be established for the common equity tier 1 capital, tier 1 capital, total capital, tier 1 leverage, unallocated retained earnings (URE) and URE equivalents leverage, and permanent capital ratios. The goals should be set well above the regulatory minimum capital ratios, as well as the capital conservation and leverage buffers, to ensure the institution will meet regulatory requirements and maintain adequate capitalization during adverse conditions. These goals should be consistent with the institution's capital needs assessment and stress test results. The goals should be sufficient to protect against adversity, survive stressful conditions and unexpected losses, and ensure long-term financial viability.
  
- **Capital Strategies: Are strategies realistic and sufficient to maintain adequate capital levels, build capital if needed, and ensure timely accomplishment of capital goals?** Institutions should establish reliable strategies to maintain or build capital when needed and to achieve capital goals in a timely manner. FCA Regulation [628.10\(e\)\(2\)](#) requires that each institution establish comprehensive strategies for maintaining an appropriate level of capital. Strategies (and goals) should be countercyclical; that is, the institution should build strong capital during good business environments, especially during significant growth periods when systemic risks may be building. This will enable the institution to better withstand stressed environments, when building and raising capital may be more difficult. Institutions that are growing (or anticipating future growth) should have strategies that prevent significant deterioration in capital strength. Contingent strategies should also be established that include well-defined trigger points for implementation. These strategies and trigger points should evidence the board's strong commitment to achieve and maintain capital goals. In addition, the board should validate that strategies and contingent strategies are feasible and executable. For example, a strategy to issue preferred stock may be unrealistic for an institution with serious earnings weaknesses or credit quality problems. While strategies for increasing capital can vary from simple to highly complex, the strategies typically fall into the following categories:
  - Increase net income and return on assets (i.e., internal sources for building capital)
  - Reduce the cash patronage refund payout ratio
  - Suspend or defer retirements of allocated and purchased equities
  - Reduce asset growth below the sustainable growth rate (refer to the *Capitalization of Growth* procedure under the *Capital Adequacy* topic)
  - Reduce or sell assets
  - Reduce risks and risk weightings on assets (e.g., guarantees and credit derivatives)
  - Increase member stock requirements
  - Issue third-party capital stock
  
- **Third-Party Capital: Are strategies to capitalize the institution with third-party capital appropriate and sustainable?** Issuing third-party capital such as preferred stock is a strategy sometimes used to increase capitalization. Issuing third-party capital causes an immediate

increase in capital ratios and can benefit an institution that needs to quickly improve capitalization. However, third-party capital should typically be used in moderation, with the primary source of capitalization coming from retained earnings and issuance of common cooperative equities. Dividend rates on third-party capital are typically high and can adversely impact earnings retention, the sustainable growth rate, and the capacity to pay patronage to members. As a result, while third-party capital can alleviate short-term capitalization pressures, it could make it more challenging to meet longer-term capital goals. Accordingly, boards that issue preferred stock should have robust capital planning that ensures capitalization strategies are sustainable over the long term and appropriately balanced with goals to build capital through retained earnings. Boards should also consider alternative capital strategies before deciding on a strategy of issuing third-party capital, such as those described earlier under *Capital Strategies*.

Refer to the following for additional information and guidance:

- OCC Bulletin [2012-16](#) – Guidance for Evaluating Capital Planning and Adequacy
- Federal Reserve paper [Capital Planning at Large Bank Holding Companies: Supervisory Expectations and Range of Current Practices](#) dated August 2013
- Federal Reserve Supervision and Regulation Letter [SR 15-19](#) – Federal Reserve Supervisory Assessment of Capital Planning and Positions for Large and Noncomplex Firms
- Federal Reserve Community Banking Connections article [Capital Planning: Not Just for Troubled Times](#) dated third quarter 2013
- Federal Reserve Supervision and Regulation Letter [SR 12-7](#) – Interagency Guidance on Stress Testing for Banking Organizations with Total Consolidated Assets of More than \$10 Billion dated May 14, 2012
- Federal Reserve Supervision and Regulation Letter [SR 14-3](#) – Supervisory Guidance on Dodd-Frank Act Company-Run Stress Testing for Banking Organizations with Total Consolidated Assets of More Than \$10 Billion but Less Than \$50 Billion dated March 6, 2014
- OCC Bulletin [2012-33](#) – Community Bank Stress Testing

## **2. Reporting:**

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

### Guidance:

Reporting systems should be sufficient for the board to monitor capital adequacy trends and the effectiveness of capital management decisions. Effective reporting enables the board to understand results of the capital needs assessment (including stress testing results) and to make informed decisions when establishing capital goals and related strategies. Reporting should also be sufficient for the board to fully understand emerging threats and risks to capital, including trends in the institution's ability to capitalize asset growth.

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

- **Reporting Frequency and Detail: Is reporting timely and sufficient for the board and senior management to monitor and understand key trends and issues related to capital?** Reporting should provide information on capital adequacy and effectiveness of capital strategies. Reporting frequency and detail should be appropriate for the institution's size, complexity, and capitalization. The following are examples of items that should typically be

reported:

- Trends in capital quantity and quality (e.g., regulatory capital ratios, percentage unallocated retained earnings and equivalents)
  - Emerging threats and risks to capital, particularly credit risks (e.g., adverse assets/total regulatory capital)
  - Capitalization of asset growth
  - Capital needs assessment, including stress test results
  - Progress in achieving capital goals and implementing capital strategies
  - Impact of capital distribution and allocated equity programs on quantity and quality of capital
- **Reporting Clarity: Are reports to the board and senior management easy to understand and interpret while providing meaningful and complete information?** Reports should be clear, understandable, and meaningful. While reporting should be complete, this does not necessarily imply that reporting needs to be voluminous. Meaningful information should be readily apparent.
  - **Reporting Controls: Do internal controls exist that ensure reporting is complete and accurate?** Internal controls should ensure reporting (including capital-related call reporting) is accurate, complies with policy requirements, and is not misleading.

### **3. Capital Distribution Programs:**

Evaluate administration of capital distribution programs.

#### Guidance:

Capital distributions can significantly impact an institution's overall capitalization. They affect the institution's ability to retain earnings, build capital, capitalize growth, and achieve capital goals. Generally, if an institution begins to experience stress or capital pressure, reducing capital distributions should be one of the key strategies the board considers. Within the System, capital is distributed primarily through:

- Payments of cash patronage and dividends.
- Retirements (i.e., redemptions, repurchases, and revolvments) of purchased stock, allocated equities, and other instruments included in regulatory capital.

FCA Regulation [628.11\(a\)\(2\)\(vii\)](#) includes additional examples and a more detailed definition of capital distribution (as it pertains to distributions under the capital buffer regulatory provisions).

Patronage programs are unique to the cooperative business model. If managed effectively, patronage (also referred to as patronage refunds) provides a return to members and promotes members' sense of ownership, loyalty, and vested interest in the institution's performance and management. Members' desire for ongoing patronage can increase the board's financial discipline to maintain strong profitability that supports continued patronage payments. Patronage can also be used as a tax management strategy. However, if managed ineffectively, patronage programs can challenge institutions in accumulating adequate and stable capital, capitalizing growth, and achieving capital goals.

Patronage differs from stock dividends. Patronage distributions are based on the member's use of the cooperative's products and services. For example, the amount of patronage might be based on

average daily balance of loans outstanding, interest earned, or net interest earned from each member. In other words, members are rewarded based on how much they support or patronize the institution. By contrast, stock dividends are payments based on the level of investment or ownership in the institution. For example, dividends on preferred stock are based on the amount of preferred stock held by the investor and the dividend rate. Both patronage and stock dividends are subject to board approval and must be declared by the board before payment.

Patronage may be in the form of cash, allocations of equity, or a combination of both. Cash patronage payments result in a reduction of unallocated retained earnings (URE) and total capital. Allocations of equity leave the amount of total capital unchanged but cause URE to be reclassified as allocated equity (stock or surplus). Allocations of equity increase common cooperative equities and individual members' ownership in the institution. The following lists the primary categories of common cooperative equities:

- Purchased member stock
  - Statutory minimum borrower stock requirement
  - Other member-purchased common stock (in excess of the statutory minimum stock requirement)
- Allocated surplus (i.e., allocated retained earnings) and allocated stock
  - Qualified and subject to retirement
  - Nonqualified and subject to retirement
  - Nonqualified and not subject to retirement (URE equivalents)

Allocated equities are designated as either qualified or nonqualified under Subchapter T of the Internal Revenue Code. Both are eligible for single taxation treatment but differ on who pays the federal taxes (applicable to taxable entities). If allocated equities are qualified, the federal taxes on the distribution are paid by the member when received. If allocated equities are nonqualified, the federal taxes are initially paid by the institution, but are later reversed at the institution and paid by the member if the allocated equity is retired. For tax-exempt institutions, all tax is deferred on nonqualified allocations until the equity is retired. The written notice of allocation provided to members at the patronage distribution date identifies whether it is qualified or nonqualified and preserves the single taxation status of patronage payments. The notice must also designate whether the allocated equity is subject to retirement.

Allocated equities may be designated as either retained indefinitely (as a permanent source of capital) or as available for redemption and periodically retired. If designated for redemption, different strategies exist for retiring allocated equities. The most common are a systematic revolving plan and a base capital plan, as described below:

- Under systematic revolving plans, the board establishes a cycle for revolving allocated equities. For example, with a 10-year revolving cycle, allocated equity is revolved 10 years after it is issued. Revolvments typically follow a first-in, first-out approach so the oldest allocated equity is revolved first and institution ownership remains with current users. Equities with a longer revolving cycle (holding period) are typically higher quality.
- Under a typical base capital plan, the board defines a minimum initial stock requirement and a target equity level that each member must strive to meet longer term. For example, the target equity level might be set at 8 percent of the member's 10-year average loan volume. Patronage would initially be paid primarily in the form of allocated equity. After the member reaches the 8 percent target equity level, patronage would be paid primarily in the form of cash.



The quality of allocated equity depends largely on the length of its holding period, member expectations, and board flexibility for managing revolvments. For example, nonqualified allocated equities that are not subject to retirement are the highest quality. They are considered functionally equivalent to URE (URE equivalents are defined in FCA Regulation [628.2](#)) if bylaws or an annual board resolution prohibit these equities from being retired (other than through the institution's liquidation, dissolution, or other exceptions listed in FCA Regulation [615.5200\(d\)\(4\)](#)). Conversely, equities revolved only 2 or 3 years after allocation have minimal economic value from a capital perspective and may result in unmanageable borrower expectations and reduced board flexibility to suspend or defer revolvments of allocated equities. Similarly, members that receive qualified allocated equities and pay the federal taxes will have a higher expectation that these equities will ultimately be retired and distributed in cash. In addition, allocated equity cannot be included in regulatory capital unless the institution, through a bylaw or an annual board resolution, has committed to retain the equity for at least the minimum applicable holding period. Specifically, allocated equity must be held at least 7 years to be included in common equity tier 1 capital and at least 5 years to be included in tier 2 capital. FCA Regulation [628.20](#) addresses the specific requirements for including allocated equity in regulatory capital.

The institution may also attribute URE to members. Such URE is assigned to specific members through memorandum accounting entries, but the institution does not provide qualified or nonqualified written notices of allocation to the members. Thus, members may be unaware of their attributed URE ownership stake. Institutions typically do not intend to ever retire this URE under normal circumstances. Because of these factors, attributed URE is not considered allocated equity as defined previously and does not preserve single taxation treatment. The purpose of the attribution is to determine how URE may be distributed in the event of the institution's merger, liquidation, or dissolution. Since the attributions are assigned through memo records, it is generally within the board's discretion and authority to reduce, increase, or cancel the assignment of URE to members.

Dividends on preferred stock are cash payments out of URE. In comparison to patronage, the board typically has less flexibility or may be less willing to adjust preferred dividends. Dividends must be declared by the board (FCA Regulation [615.5295](#)) and can be suspended without triggering an event of default. Therefore, like patronage payments, preferred stockholders are not guaranteed a dividend. Nonetheless, the dividend rate is defined at the time of preferred stock issuance and normally does not change for the life of the stock. Dividends on preferred stock must be paid in full before cash patronage can be paid to members. In addition, if dividends are cumulative, dividends skipped (not declared or paid) by the board are considered "in arrears" and must be paid before future dividends are paid. As a result, a board's decision to skip dividends can result in reputation risk with both members and investors. Disruption in dividend payments can also create challenges in attracting investors for future preferred stock issuances.

Evaluative questions and items to consider when examining capital distribution programs include:

- ***Patronage & Allocated Equity Strategies: Do patronage and allocated equity strategies promote the accumulation of adequate and stable capital, capitalization of growth, and achievement of capital goals?*** Patronage and allocated equity strategies should promote and be consistent with capital plans and goals. For example, the institution may be unable to build capital to capitalize growth or achieve capital goals if (1) cash patronage is too high and insufficient earnings are retained to build capital, (2) the amount of allocated equity subject to revolvment is too high, (3) the allocated equity revolvment cycle is too short, or (4) the target equity level in base capital plans is too low. The quality and stability of capital



are affected by the form of allocated equities as described previously. In addition, patronage and allocated equity programs must be consistent with regulatory requirements, particularly the following (additional requirements are addressed in the *Capital Compliance* procedure):

- Patronage strategies must be consistent with cooperative principles, with patronage paid on an equitable and nondiscriminatory basis as described in FCA Regulation [615.5230\(c\)\(3\)](#).
  - Capital distributions must receive FCA prior approval unless they are deemed to already be approved under the “safe harbor” provisions in FCA Regulation [628.20\(f\)\(5\) and \(6\)](#). The “safe harbor” provisions identify minimum holding periods for common cooperative equities before they can be retired, maximum capital distribution amounts, and certain other criteria.
  - Common cooperative equities cannot be included in regulatory capital unless either the institution amends its bylaws or the board adopts an annual resolution. The bylaws or resolution must ensure that equity holding periods, equity redemptions and revolvments, and amounts of capital distributions comply with FCA Regulation [615.5200\(d\)](#), including the requirement for FCA prior approval of capital distributions and redesignation of equities into a different component of regulatory capital.
  - If regulatory capital ratios fall into the conservation or leverage buffers, FCA Regulation [628.11](#) imposes more restrictive limits on capital distributions. FCA Regulation [615.5215](#) prohibits capital distributions if afterwards the permanent capital ratio fails to meet the minimum regulatory requirement.
- ***Preferred Stock Dividend Strategies: Are dividend strategies appropriate and adequately supported?*** As discussed previously, dividends are cash payments out of URE. Therefore, like patronage, dividends can affect the accumulation of capital and achievement of capital goals. While board decisions to pay or not pay dividends should consider reputation risks, dividends should be readily adjusted, as needed, to maintain adequate capitalization or respond effectively to financial adversity.
  - ***Board Governance: Does the board complete sufficient due diligence when deciding to declare capital distributions?*** Provisions should be made in bylaws (as required by FCA Regulation [615.5220](#)), board resolutions, policies, and procedures that address capital distributions (including patronage paid on nonperforming loans). In addition, the board must evaluate capital distribution programs at least annually to determine if changes are needed (as required by FCA Regulation [615.5200\(b\)](#)). The board should never put capital distribution programs on automatic pilot because these programs have a significant impact on capitalization, and institution conditions, financial performance, and capital needs change over time. Patronage payments, allocated equity retirement practices, and other capital distributions should be readily adjusted when needed to achieve capital goals. Several alternatives are available if the board determines capital distribution programs need adjustment. For example, if capital needs strengthening, the board can reduce the percentage of earnings distributed as cash patronage, temporarily suspend or extend the allocated equity revolvment cycle, increase the target equity level in base capital plans, allocate equity as opposed to distributing cash patronage, or retain more earnings as URE. The net effect of these types of strategies is a reduction in either cash patronage or

allocated equity retirements. Conversely, if capital is strong and exceeds goals, the board may decide to increase capital distributions, although several other factors would need to be considered before making such a decision. Areas the board should consider when evaluating capital distribution programs include:

- Capital adequacy
  - Capital goals
  - Quality of capital
  - Annual earnings and earnings trends
  - Existing and emerging risks
  - Capitalization of growth
  - Future business strategies
  - Results and robustness of the capital needs assessment (described in the *Plans & Strategies* procedure)
- **Managing Member Expectations: Do capital distribution programs give the board sufficient flexibility to readily adjust cash distributions and equity retirements without significant repercussion or reputation risk?** When the board establishes a capital distribution program, it should consider whether the program can be easily managed and adjusted. Patronage payments and allocated equity redemptions are strictly a discretionary board decision per FCA Regulations [615.5220\(a\)\(6\)](#) and [615.5240\(b\)](#). However, if such programs cause members to believe they are guaranteed a certain return, then significant repercussions and reputation risk may result if the board decides to reduce or suspend capital distributions. Institutions should not promote business programs by advertising that capital distributions can be expected (albeit subject to board discretion and approval). This could cause members to have unwarranted expectations that these distributions will continue even when they need to be reduced due to emerging risks or other issues. In addition, revolvment cycles that are aggressively short can create high member expectations that they will continue. The board should ensure sufficient flexibility exists to modify capital distribution programs when needed to respond to changing conditions and still achieve capital goals. The board should also ensure strategies and communications with members properly manage member expectations.

#### **4. Economic Capital:**

Evaluate the use of economic capital methodologies for capital management, risk management, and other purposes.

##### Guidance:

While not required by regulations, System institutions may supplement the assessment of capital needs with economic capital analyses. Economic capital is the estimated amount of capital an institution needs to cover unexpected losses and ensure its survival as a going concern. It is the amount of capital that would be needed to cover unidentifiable risks, including credit, market, operational, and interest rate risks. Advanced modeling techniques are used to estimate economic capital. These models quantify the amount of capital needed to cover the various risks and remain solvent over a defined period at a predetermined statistical confidence interval. Key drivers of model results typically include probability of default, loss given default, loss history, loss volatility, risk concentrations, and asset correlations. Although economic capital analyses can significantly improve the assessment of capital needs, such analyses should not be used to justify capital levels

that are lower than what is typically considered prudent.

Economic capital models also provide several benefits beyond helping determine capital needs. In particular, these models provide sophisticated measures of risk. The models provide granular information on the sources and levels of risks and promote a better understanding of the institution's risk profile. With such knowledge, management is more apt to identify emerging risks in the early stages and implement more effective risk controls. For example, if the model identifies emerging loan concentration risks, management may need to take actions to reduce concentrations, strengthen underwriting, or impose a loan pricing premium. Economic capital models may also be used in risk-based loan pricing, allocating capital to business lines, assessing risk-adjusted performance, enterprise risk management, and in establishing the overall strategic lending and business focus.

Evaluative questions and items to consider when examining economic capital methodologies include:

- **Used in Capital Needs Assessment: Are economic capital estimates appropriately considered in the capital needs assessment?** A key objective of economic capital measurement is to estimate the amount of capital needed to cover risks. Results of economic capital models are interpreted by comparing the actual capital level to the economic capital measure. If the actual capital level is higher than the economic capital measure, the model is indicating capital is adequate in relation to identified risk exposures. Conversely, if the actual capital level is below the economic capital measure, the model is indicating that capital is insufficient relative to risk exposures. While economic capital models are useful and assist in the capital needs assessment, the institution should use care in interpreting and balancing results due to inherent model risk. Considerations include:
  - System institutions should allow for model imprecision and recognize the model is most likely not measuring all potential risks (i.e., model risk). Institutions can recognize this model risk by operating with a cushion of capital well above economic capital estimates. The capital needs assessment should determine how much cushion is needed. If a capital cushion does not exist or is considered insufficient, the institution should develop and implement goals and strategies to either build capital or reduce risk exposures.
  - The capital needs assessment should not be overly reliant on economic capital measures. Economic capital requirements should be only one of many considerations in the capital needs assessment, as discussed in the *Plans & Strategies* procedure. In particular, economic capital models do not eliminate the need for stress testing and sound judgment in assessing capital needs.
- **Model Risk: Does the model provide a reliable and accurate measure of economic capital?** Model risk cannot be eliminated but should be minimized. The examination of model risk should focus on modeling methodology, underlying assumptions, and data feeds. The model should contain valid and supported methodologies for measuring risks (e.g., credit, market, operational, and interest rate risk) from each of the institution's significant business lines. Underlying assumptions should be supported and compared to peers where possible. In addition, historical datasets used in the analysis should be robust and sufficiently granular to assess the unique risks in different business lines. The following should also be considered in assessing model risk and reliability:

- Model input relies heavily on robust historical datasets, which can be difficult to obtain.
  - Even if historical data is readily available, future risks can and will deviate from history.
  - Mistakes on assumptions, such as asset correlations or loss probabilities, can significantly affect model results.
  - Models frequently measure risks over a 1-year horizon even though the next crisis or cyclical downturn could last several years.
  - Considerable uncertainty exists in measuring and quantifying operational risk.
  - If a district-wide model and assumptions are used, the model may not capture or differentiate risks that are unique to the institution.
  - Black swan events are impossible to predict and model, but can have significant consequences.
- **Model Validation: Has management taken actions to minimize model risk by obtaining an independent and reliable validation of the model, assumptions, and input?** Models used for economic capital assessment 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.*

### 5. Capital Compliance:

Evaluate compliance with capital-related FCA Regulations.

#### Guidance:

FCA Regulations contain extensive capital-related requirements. Institutions must have sufficient processes and internal controls to ensure compliance with these requirements. Evaluative questions and items to consider when examining capital compliance include:

- **Regulatory Compliance: Is the institution complying with capital-related regulations?** The general regulatory requirements are listed below and categorized by topic.
  - *Computation of Regulatory Capital Ratios* – The following regulations address computation of regulatory capital ratios:
    - [628.20](#), [628.22](#), and [628.23](#) – Tier 1 and tier 2 capital
    - [628.30 through 628.53](#) – Risk-weighted assets
    - [615.5201](#), [615.5206](#), [615.5207](#), [615.5208](#), and [615.5240](#) – Permanent capital
  - *Minimum Regulatory Capital Requirements* – FCA Regulation [628.10\(b\)](#) defines minimum requirements for the total regulatory capital, tier 1 capital, common equity tier 1 capital, tier 1 leverage, and permanent capital ratios. Compliance with these regulations is examined through the ongoing oversight program and Financial Institution Rating System (FIRS) analyses.
  - *Capital Buffers* – FCA Regulation [628.11](#) defines the capital conservation and leverage buffer levels, computation of the buffers, and limits on capital distributions and discretionary bonus payments if regulatory capital ratios fall within the buffers.

- *Capital Distributions* – The following regulations establish prior approval requirements and limits on capital distributions, and various requirements on borrower stock retirement. Compliance with these regulations is assessed in the *Capital Distribution Programs* procedure. Capital distribution limits are also addressed in the *Capital Buffers* bullet above.
  - [628.11\(a\)\(2\)\(vii\)](#) – Capital distribution definition (only for purposes of the capital conservation buffer and the leverage buffer)
  - [628.20\(f\)](#) and [615.5200\(d\)](#) – FCA prior approval requirements for distributions of capital included in tier 1 and tier 2 capital
  - [628.20\(f\)](#), [615.5215](#), and [615.5270](#) – Capital distribution prohibition if afterwards the permanent capital ratio fails to meet the minimum regulatory requirement
  - [615.5260](#) – Retirement of eligible borrower stock at par (primarily stock issued before October 1988, the payment of which is guaranteed by the Farm Credit System Insurance Corporation)
  - [615.5270](#) – Retirement of borrower stock other than eligible borrower stock
  - [615.5280](#) – Retirement upon loan default
  - [615.5290](#) – Retirement in the event of loan restructuring
  - [620.5\(d\)\(1\)\(v\)](#) – Policy on stock retirement and restrictions on transfer, which may be addressed in bylaws or a board policy
  - [628.20](#) – Holding periods and FCA prior approval requirements for retiring tier 1/tier 2 equities
  
- *Capital Bylaws and Resolutions* – The following regulations address areas that must be included in bylaws or board resolutions:
  - [615.5220](#) – General capital bylaw requirements
  - [615.5200](#) and [628.20](#) – Provisions that must be in either a bylaw or annual board resolution before including issued or allocated equities in regulatory capital
  - [628.2](#) – Unallocated retained earnings equivalents definition
  
- *Third-Party Capital* – The following regulations address controls over the issuance and retirement of preferred stock and other third-party capital:
  - [628.23](#) – Limits on the amount of third-party capital that can be included in tier 1 and tier 2 capital
  - [615.5245](#) – Board policy requirements and limitations for association preferred stock that may be held only by members
  - [615.5270](#) – Retirement requirements for all institutions issuing third-party capital, including the need for a board policy that addresses certain minimum criteria
  - [615.5255](#) – Disclosure requirements for the sale of equities other than borrower stock
  
- *Capital Planning* – FCA Regulations [615.5200](#) and [628.10\(e\)](#) address minimum requirements for capital planning and the assessment of capital needs. Compliance with these regulations is examined using the *Regulatory Compliance* procedure in the *Business Strategy & Planning* topic. The more qualitative assessment of capital

planning is addressed in the *Plans & Strategies* procedure in the *Capital Management* topic.

- *Capital Disclosures to Prospective Borrowers* – FCA Regulation [615.5250](#) addresses capital-related disclosures to prospective borrowers prior to loan origination.
- *Public Capital Disclosures* – FCA Regulations [628.61](#), [628.62](#), and [628.63](#) address capital-related disclosures in the quarterly and annual shareholder reports for banks. Compliance with these regulations is examined using the *Annual Report* and *Quarterly Report* procedures in the *Financial & Shareholder Reporting* topic.
- **Internal Controls: Does a sufficient internal control framework exist to ensure ongoing compliance with capital regulations?** The institution should have processes and internal controls that ensure compliance with capital regulations. FCA's Informational Memorandum on [Implementation of the Tier 1/Tier 2 Capital Framework](#) dated November 10, 2016, summarizes several key controls. In particular:
  - Ongoing processes should exist to validate the computation and reporting of regulatory capital measures.
  - Processes should exist to alert the board and management when FCA prior approval is required before distributing capital.
  - Policies or procedures should document processes for ensuring ongoing compliance with capital regulations. For example, policies or procedures should address controls over capital calculations, patronage programs, allocated equity revolvment cycles, issuance and redemption of third-party capital, reporting and disclosures, compliance with FCA prior approval requirements, and annual board resolutions (as applicable).

Refer to the following for additional information and guidance:

- FCA Bookletter [BL-068](#) – Tier 1/Tier 2 Capital Framework Guidance
- FCA [Call Report Instructions](#) for Schedules RC-R.1 through RC-R.7

## 6. Audit:

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

### Guidance:

The internal audit and review program is a key mechanism for ensuring capital management processes are functioning effectively and in compliance with regulations, bylaws, and policies. The internal auditor or other qualified, independent party should review the adequacy of capital management to ensure compliance with applicable criteria. The audit risk assessment and scope should address capital 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 capital management is sound and that capital reporting is complete and accurate.

Evaluative questions and items to consider when examining the audit function regarding capital management include:

- **Audit Coverage: Is there periodic audit or review coverage of capital 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 capital 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:
  - Capital planning, including the capital needs assessment and resulting capital goals and strategies.
  - Board reporting systems for monitoring capital adequacy trends and effectiveness of capital strategies.
  - Capital distribution programs.
  - Regulatory capital ratio calculations.
  - Capital-related reporting in FCA Call Reports.
  - Internal controls ensuring compliance with capital-related regulations, bylaws, board resolutions, and policies.
  - Model validation and compliance with the model validation policy for all significant capital management models (e.g., stress testing and economic capital 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 capital 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 given the institution's size and complexity, 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.