

EM-51.2

Category: Liquidity
Topic: Liquidity Management
Published: 9/30/2020

Overview

The *Liquidity Management* topic provides guidance on evaluating a Farm Credit System (System) institution's policies, procedures, processes, and controls that ensure the ongoing funding of operations under reasonable terms and conditions. The underlying risks and related risk management processes for an institution to accomplish this objective differ significantly at associations compared to banks. For example:

- Association liquidity management should focus on maintaining access to funding through borrowings on the direct loan with its funding bank. Policies and internal controls should address general financing agreement (GFA) compliance, with monitoring and reporting of liquidity risk focused on current and prospective threats to GFA compliance.
- System bank liquidity management is much more complex and comprehensive. Management needs to assess pro forma cash flow requirements on an ongoing basis and ensure funding strategies and debt issuances meet daily funding needs for the bank and its affiliated associations. Such cash flows fluctuate and are at times challenging to predict. In addition, management must maintain sufficient secondary sources of liquidity (i.e., liquidity reserves) the bank can draw on if its primary source of funding is disrupted. Policies and internal controls should address the quantity and quality of the liquidity reserve and ensure it can be readily used to meet funding needs during a liquidity crisis. A comprehensive contingency funding plan that includes stress testing is a critical component of liquidity risk management and enables the bank to effectively respond to potential crisis situations in a timely and orderly manner.

For both associations and banks, declining or weak financial performance and risks in any area of operations can pose a threat to liquidity. As a result, effective liquidity management should be supported by sound overall risk management and strategic planning processes. In addition, the internal audit program should provide the board with reasonable assurance that policies, reporting, internal controls, and other aspects of the liquidity risk management framework are sound and functioning as intended.

Specific guidance and criteria for examining liquidity risk management are discussed in the procedures below. Refer to the following for additional background information and general guidance:

- [Interagency Policy Statement on Funding and Liquidity Risk Management](#) (March 2010)
- [Basel Principles for Sound Liquidity Risk Management and Supervision](#) (September 2008)
- [Interagency Stress Testing Guidance](#) (May 2012)
- [The Federal Reserve Board Commercial Bank Examination Manual](#) (Section 4020)

Examination Procedures and Guidance

General

1. Policy & Procedures:

Determine if policies and procedures provide adequate guidance for liquidity management.

Guidance:

FOR ASSOCIATION EXAMINATIONS: Liquidity is critical to ongoing viability and is an important board and management responsibility. As such, policies or procedures should clearly describe the framework for managing liquidity risk, with a focus on managing GFA compliance. Secondary sources of liquidity should also be addressed if used for managing liquidity risk. In addition, an association's policies and procedures, in aggregate, should be consistent with sound financial and credit practices and help ensure the association's ongoing creditworthiness.

Evaluative questions and items to consider when examining an association's liquidity policies and procedures include:

- ***Board Policy: Does the association have an adequate liquidity policy?*** Farm Credit Administration (FCA) Regulation [620.5\(g\)\(3\)\(ii\)\(A\)](#) requires associations to discuss their liquidity policy in the annual report to shareholders. As such, the board should adopt a policy that is appropriate for the nature of the institution's liquidity risk and risk management processes.
- ***GFA Compliance: Do policies or procedures adequately address GFA compliance?*** Policies or procedures should address the processes for monitoring and ensuring ongoing compliance with the GFA. Standards or guidelines should be established that trigger increased awareness and corrective actions before the association violates performance covenants or other requirements in these agreements. In addition, the guidance should address the requirement in FCA Regulation [614.4125\(f\)](#) to provide written notification to FCA and the Farm Credit System Insurance Corporation immediately upon the association's receipt of a notice that it is in material default under any general financing agreement, loan agreement, promissory note, security agreement, or other related documents with a System bank or non-Farm Credit institution.
- ***Secondary Sources: Do policies or procedures sufficiently address secondary liquidity sources, if any?*** If the association has secondary liquidity sources, these sources should be addressed in policies or procedures. The most common secondary sources of liquidity are supplemental lines of credit, loan sales, and voluntary advance conditional payment (VACP) programs. Policy and procedural guidance should be consistent with the amount and complexity of secondary liquidity sources.

FOR BANK EXAMINATIONS: Policies and procedures should clearly describe the framework for managing liquidity risk. FCA Regulation [615.5134\(a\)](#) requires bank boards to adopt a liquidity policy, and identifies several minimum requirements it must address related to the liquidity reserve. In addition to these regulatory requirements, policies or procedures should address funding strategy, compliance with the Market Access Agreement (MAA) and Contractual Interbank Performance Agreement (CIPA), and any other secondary sources of liquidity. Also, a bank's policies and

procedures, in aggregate, should be consistent with sound financial and credit practices and ensure the bank's ongoing creditworthiness.

Evaluative questions and items to consider when examining a bank's liquidity policies and procedures include:

- **Board Policy: Does the bank have an adequate liquidity policy?** FCA Regulation [615.5134\(a\)](#) requires that bank boards adopt a liquidity policy. It also addresses expectations for annual review of the policy and internal controls for management to comply with and carry out the policy.
- **MAA and CIPA Compliance: Do policies or procedures address compliance with the MAA and CIPA agreements?** Since MAA and CIPA govern the ability to participate in Systemwide debt issuances, policies or procedures should address the processes for monitoring and ensuring ongoing compliance with these agreements. Standards or guidelines should be established that trigger increased awareness and corrective actions before the bank violates performance covenants or other requirements in these agreements.
- **Funding Strategy: Do policies or procedures address funding strategy and debt structure?** Policies or procedures should address the overall funding strategy and contingency funding plans. Debt structure should also be addressed since it has a material impact on the bank's liquidity risk profile. Policies or procedures should include standards or philosophy statements that promote effective liquidity risk management and longer-term structural funding of the balance sheet. For example, standards could include limits on the maximum amount of discount notes and short-term bonds outstanding. Also, if a bank's funding strategy includes a global debt program, FCA Bookletter [BL-036](#) provides expectations for establishing policies and procedures to implement the program.
- **Liquidity Reserve (Secondary Source): Do policies and procedures provide adequate direction on the liquidity reserve and comply with related regulatory requirements?**
 - FCA Regulation [615.5134\(a\)](#) contains several requirements. Specifically, the liquidity policy must address the purpose and objectives of the liquidity reserve, diversification requirements, targeted days of liquidity, delegations of authority, and reporting requirements. The liquidity targets and standards should be consistent with the bank's unique business model, risk profile, and assessment of liquidity needs. In addition, the reporting provisions must, at a minimum, require quarterly board reporting on compliance with the liquidity policy and performance of the liquidity reserve, and more frequent reporting if deviations from policy can potentially cause a material loss.
 - While not explicitly required by regulations, policies and procedures should also ensure compliance with other liquidity reserve requirements. In particular, policies or procedures should:
 - Clearly identify the market risk characteristics and measurable criteria that are used to implement the marketability requirement for the liquidity reserve (FCA Regulation [615.5134\(d\)](#)).
 - Address processes used to periodically test marketability (FCA Bookletter [BL-064](#)).

- Ensure investments held for liquidity are unencumbered (FCA Regulation [615.5134\(c\)](#)).
 - The bank may need to rely heavily on the repurchase (repo) market to convert the liquidity reserve into cash during a liquidity crisis. As a result, policies or procedures should contain requirements for establishing master repo agreements with counterparties and periodically testing these agreements.
- **Other Secondary Sources: Do policies or procedures sufficiently address other secondary liquidity sources, if any?** If the bank holds secondary sources of liquidity other than the liquidity reserve, these sources should be addressed in policies or procedures. The most common secondary liquidity sources are supplemental lines of credit, loan sales, and member investment bond (MIB) programs. Policy and procedural guidance should be consistent with the amount and complexity of secondary liquidity sources.

2. Monitoring & Controls:

Evaluate the board and management's plans, systems, and internal controls for monitoring and managing liquidity risk.

Guidance:

FOR ASSOCIATION EXAMINATIONS: Monitoring and reporting systems should be sufficient for the board and management to understand the level and trends in liquidity risk and to make informed decisions. The systems should recognize that declining or weak financial performance or risks in other areas of operations can pose a threat to liquidity. Internal controls should ensure corrective action plans are developed when liquidity risks become elevated. In addition, management's plans and systems should effectively build and maintain a strong, creditworthy association that can command access to GFA funding at a reasonable cost and terms.

Evaluative questions and items to consider when examining an association's liquidity risk monitoring and control processes include:

- **Reporting: Is reporting timely, accurate, and sufficient for the board and management to monitor and understand liquidity risk on an ongoing basis?** Reporting should provide information on liquidity risk, particularly any threats to GFA compliance. Management should typically provide liquidity reports to the board at least quarterly or more frequently if liquidity risk becomes elevated. Internal controls should ensure reporting is accurate and complies with policy requirements. Reporting should generally include:
 - Current and projected compliance with key GFA covenants and conditions, particularly the adequacy of the borrowing base and underlying quality of collateral (i.e., asset quality) supporting the direct loan.
 - Current and projected compliance with liquidity policy and procedures, particularly standards and guidelines.
 - Emerging threats and risks to liquidity, if any (including increasing credit, interest rate, operations, strategic, and off-balance sheet risks).
 - Status of the corrective action plan, if any.

- Secondary sources of liquidity, if any, such as supplemental lines of credit and sales or securitization of loans.
- Threats to the funding bank's liquidity, if any.
- **Corrective Action Plan: Did management develop an adequate corrective action plan if liquidity risks became elevated?** The association should develop a corrective action plan any time GFA compliance is threatened or liquidity risk otherwise becomes elevated. Ideally, policies and procedures should include standards, guidelines, or trigger points that identify when a corrective action plan is needed. The plan should identify the strategies and specific actions management will take to mitigate liquidity risks, and establish time frames and assign responsibilities for implementing the plan.
- **Loan Portfolio Marketability: Does management complete a periodic study to monitor loan portfolio liquidity and market value?** As discussed in FCA Bookletter [BL-062](#), such studies are encouraged because they help the board and management understand how loan types, structuring, and pricing decisions impact the association's liquidity. While not required, completing such studies is an indicator of a more robust liquidity management program.
- **Models:** If the association uses any models for liquidity management purposes, refer to the *Models* evaluative question below in the bank examinations section.

FOR BANK EXAMINATIONS: Monitoring and reporting systems should be sufficient for the board and management to understand the level and trends in liquidity risk and to make informed decisions. The systems should recognize that declining or weak financial performance or risks in other areas of operations can pose a threat to liquidity. Banks should also develop a funding strategy that directs daily funding of operations and establish processes to monitor implementation of that strategy. In addition, internal controls should ensure corrective action plans are developed when liquidity risks become elevated, and should ensure debt and the liquidity reserve are managed in accordance with policy, procedures, and regulations. Management's plans and systems should effectively build and maintain a strong, creditworthy bank and affiliated associations that can command access to funding at a reasonable cost and on reasonable terms.

Evaluative questions and items to consider when examining a bank's liquidity risk monitoring and control processes include:

- **Reporting: Is reporting timely, accurate, and sufficient for the board and management to monitor and understand liquidity risk on an ongoing basis?** Reporting processes should be sufficient for the board and management to fully understand emerging threats to liquidity, ensure compliance with liquidity policies, monitor liquidity reserves, and make timely and informed liquidity management decisions. Management should typically provide liquidity reports to the board at least quarterly or more frequently if liquidity risk becomes elevated or liquidity deviates from policy. Internal controls should exist that ensure reporting is timely, accurate, and complies with policy requirements and FCA Regulation [615.5134\(a\)\(2\)\(v\)](#). Reporting detail and frequency should be appropriately differentiated between the board and management and should generally include:
 - Early warning indicators of a liquidity crisis or emerging liquidity risk as defined in the contingency funding plan.

- Current and projected compliance with the requirements and standards in MAA, CIPA, and board policy (as required in FCA Regulation [615.5134\(a\)\(2\)\(v\)](#)).
 - Current and projected trends in key liquidity risk indicators.
 - Emerging threats and risks to liquidity, if any (including increasing credit, interest rate, operations, strategic, and off-balance sheet risks).
 - Funding strategy and debt structure.
 - Quantity and quality of liquidity reserve and supplemental liquidity buffer (as required in FCA Regulation [615.5134\(a\)\(2\)\(v\)](#)), including the liquidity characteristics of the liquidity reserve and buffer and testing results of master repo agreements.
 - Other secondary sources of liquidity, such as supplemental lines of credit, loan sales, or securitizations.
 - Compliance with collateral requirements in FCA Regulation [615.5050](#).
 - Status of any corrective actions to reduce liquidity risk.
- **Funding Strategy: Do adequate systems and controls exist to identify and monitor the bank's funding strategy?** Examiners need to understand how management makes daily funding decisions and who monitors and approves those decisions. The funding strategy has a material impact on cash flows, liquidity risk, and the days of liquidity measures (as well as earnings, interest rate risk, and counterparty risks related to synthetic funding). As a result, management should monitor the funding strategy and key liquidity measures. Key factors that could impact the funding strategy should also be monitored, such as potential draws on unfunded commitments, loan origination pipeline, loan prepayments, growth trends, collateral pledged to counterparties, cash flow projections, and funding conditions. A well-defined funding strategy should serve as a control to ensure cash flows are sufficient to fund daily operations. In addition, the funding strategy should ensure debt maturities are structured in a manner that avoids concentrations and promotes the bank's liquidity risk profile over the longer term (as discussed in the *Liquidity Risk* guidance).
 - **Debt-Related Controls: Do adequate systems and internal controls exist related to debt management?** Internal controls should ensure the bank issues and effectively manages debt in accordance with policy, procedures, funding strategy, and management direction. Examiners should periodically review a sample of debt transactions to test adequacy of controls. Internal controls (e.g., delegated authorities, post review, reconciliation, separation of duties, automation) should ensure:
 - Debt issuances (at the transactional level) are consistent with the funding strategy and policy.
 - Delegated authorities and approval requirements for issuing and calling debt are established, include appropriate limits on transaction amounts and debt types by individual, and are communicated to the Federal Farm Credit Banks Funding Corporation.
 - The costs and benefits of using derivatives to synthetically adjust the terms of funding are analyzed.

- Call options on outstanding debt are tracked, evaluated, and exercised timely when appropriate.
- Separation of duties exists between personnel who execute debt transactions and those who post accounting entries and reconcile trade confirmations.
- **Liquidity Reserve Controls: Do adequate internal controls exist related to managing the liquidity reserve and supplemental liquidity buffer?** Internal controls should ensure the liquidity reserve and buffer are effectively managed in accordance with regulations, policy, procedures, and management direction. Examiners should periodically review a sample of investment transactions to test adequacy of controls. Internal controls (e.g., delegated authorities, post review, reconciliation, separation of duties, automation) should ensure:
 - Each investment purchased for the liquidity reserve and buffer is consistent with policy, procedures, regulations, and liquidity objectives.
 - Each investment is discounted and included in the appropriate level of liquidity as defined in FCA Regulation [615.5134](#).
 - Investments in the liquidity reserve and buffer are unencumbered as required by FCA Regulation [615.5134\(c\)](#).
 - Investments in the liquidity reserve meet the marketability requirements in FCA Regulation [615.5134\(d\)](#), and unrealized losses on investments in the buffer are 20 percent or lower (FCA Regulation [615.5134\(e\)](#)).
 - Composition and size of the liquidity reserve and buffer are monitored, periodically analyzed, and adjusted timely in response to changing conditions.
 - Reporting to the board and management (e.g., the asset/liability management committee) is reliable and accurately presents the liquidity characteristics of the liquidity reserve and buffer.
- **Corrective Action Plan: Did management develop an adequate corrective action plan if liquidity risks became elevated?** The bank should develop a corrective action plan any time liquidity risk becomes elevated. Ideally, policies, procedures, or the contingency funding plan should include standards, guidelines, or trigger points that identify when a corrective action plan is needed. In addition, the results of liquidity stress tests determine when a corrective action plan is needed. Specifically, FCA Regulation [615.5134\(f\)](#) requires that liquidity reserves be sufficient to meet liquidity needs for at least 30 days under acute, yet plausible, stress events. If these stress tests or other liquidity indicators reveal a need to strengthen liquidity, the bank should take remedial or mitigating actions to build liquidity reserves or adjust the bank's liquidity profile. The plan should contain strategies and specific actions that management will take to mitigate liquidity risks, and establish time frames and assign responsibilities for implementing the plan.
- **Models: Are the models used for liquidity purposes managed in accordance with the institution's model risk management (MRM) framework and the guidance outlined in FCA's Model Risk Management procedure in the Corporate Governance Examination Manual topic?** These models (e.g., liquidity stress tests, which banks are required to complete) should be included in the institution's model inventory, which should accurately

represent each model's risk, materiality, and validation status. Model validation, change controls, staffing, separation of duties, and new model development should be consistent with the guidance in the institution's MRM framework and FCA's *Model Risk Management* procedure, recognizing that application of this guidance varies based on model risk and materiality. *Note: Examiners completing this procedure should focus on the specific model(s) being used; the overall MRM framework is examined using the Model Risk Management procedure referenced above.*

3. VACP & Member Investment:

Evaluate administration of the VACP and member investment programs.

Guidance:

Voluntary advance conditional payment (VACP) accounts are advance loan payments from members that have an outstanding loan or commitment from the institution. VACP funds are intended to be applied to future loan installments and maturities although, depending on the type of account, funds may be returned to the member in lieu of repaying or increasing the member's loan. VACP programs are typically offered as a service to members rather than a significant funding source. Nonetheless, VACP accounts are not government guaranteed and can be withdrawn if members believe the institution's financial condition is deteriorating or at risk. The potential for runoff may pose a risk to the GFA borrowing base and increase liquidity demands for an association and its funding bank. Management should monitor and manage this risk to liquidity. Management systems and internal controls should also ensure VACP programs comply with FCA Regulations and guidance.

Member Investment Bonds (MIBs) are Farm Credit Investment Bonds issued by System banks that are purchased primarily by members, employees, and retirees of banks and associations. While banks issue the bonds, associations can distribute information and arrange the sales. These bonds are not covered by the System's joint and several liability, but have priority over Systemwide debt obligations in a bank liquidation. Similar to VACPs, MIBs provide a relatively small source of funding and are not government guaranteed. In addition, these bonds may have embedded put options the bondholder can exercise, or short-term maturities with automatic rollover options. Therefore, MIBs can run off if bondholders believe the bank's financial condition is deteriorating or at risk. Management should monitor and manage this risk to liquidity. Management systems and internal controls should also ensure MIB programs comply with FCA Regulations and guidance.

Evaluative questions and items to consider when examining VACP or MIB program administration include:

- **Policy and Procedures: Do policies and procedures provide adequate direction to the VACP or MIB program?** Institutions that use VACP or MIB programs should have policies and procedures that are consistent with the extent and complexity of the program. Refer to FCA Bookletter [BL-030](#) for specific expectations on VACP policies and procedures. Policies and procedures for both programs should generally address the following:
 - Program limits
 - Board reporting requirements
 - Member or investor qualifications and limits
 - Program or product terms and structures
 - Pricing

- Issuance
 - Redemption processes and limitations
 - Member agreement requirements on VACP accounts
 - Processes for limiting risks to the institution
- **VACP Accounting: Does VACP accounting comply with FCA Bookletter [BL-030](#)?** VACP accounts where funds must be applied to the loan balance should typically be reported on the balance sheet as a contra-asset that is netted against loan volume. VACP accounts where funds either exceed the outstanding loan balance or can be withdrawn for qualified purposes are reported as liabilities. VACP accounts reported as liabilities generally pose the greatest risk of runoff.
 - **VACP Management and Controls: Are the VACP program and related costs effectively managed? Does the VACP program comply with FCA Regulations and guidance?** The institution should manage VACPs in a manner that mitigates liquidity risk. Examples of approaches include limiting the size of the program relative to the unused borrowing base, retaining discretion over withdrawal of funds, requiring advance notice before withdrawal, and restricting purposes for the funds. The approach used should consider and minimize related reputation risk. VACP program costs should also be effectively managed. If the program is aggressively marketed and offers yields that are above market rates at depository institutions, it could result in significant program growth, increased liquidity risk, and increased funding costs. In addition, the institution should have sufficient processes and controls to ensure compliance with criteria in FCA Regulation [614.4175\(a\)](#) and FCA Bookletter [BL-030](#), particularly the following requirements:
 - Interest rates paid cannot exceed the rate on the related loan.
 - The maximum amount a member can place in a VACP account must be limited to either the outstanding loan amount or commitment. If limited to the commitment, the amount of commitment should be based on reasonably projected borrowing needs. The maximum VACP amount for revolving lines of credit should be limited to the projected maximum outstanding loan balance.
 - The institution must establish a VACP agreement with members that discloses and addresses the following:
 - Accounts are not insured.
 - Risk of loss if the institution is liquidated.
 - Limits on amounts that can be paid into the account.
 - Interest rates paid including terms of variable interest rates.
 - Withdrawal guidelines and restrictions.
 - **MIB Management and Controls: Is the MIB program effectively managed? Does the MIB program comply with FCA Regulations and guidance?** The bank should manage MIB programs in a manner that mitigates liquidity risk. Examples of approaches include limiting the size of the program, extending maturities, restricting early redemptions, or maintaining secondary sources of liquidity sufficient to offset runoff risk. The bank should also effectively manage MIB program costs. If the program is aggressively marketed and pays relatively high interest rates, it could result in significant program growth, increased liquidity risk, and an increase in funding costs. In addition, banks that issue MIBs and associations that facilitate sales should have sufficient processes and controls to ensure compliance with FCA

Regulations [615.5110](#) and [615.5120](#), and FCA Bookletter [BL-011](#), particularly the following requirements:

- Eligibility to purchase these bonds is limited to members and employees of banks and associations (including retirees that are beneficiaries of a bank or association retirement program), and to FCA retirees.
- Bank directors, officers, and employees involved in setting the term or interest rate on these bonds are not eligible to purchase the bonds.
- Stock cannot be sold solely to qualify a party as a member for the purpose of purchasing these bonds.
- Disclosures to investors should clearly explain that the bonds are not government-guaranteed and the issuer (obligor) is the Farm Credit Bank and not the association.

4. Contingency Funding Plan (banks only):

Determine if the contingency funding plan ensures liquidity will remain sufficient to fund normal ongoing operations under unplanned liquidity stress events.

Guidance:

FCA Regulation [615.5134\(f\)](#) requires each bank to adopt a contingency funding plan (CFP). The purpose of the CFP is to ensure liquidity reserves and other backup funding sources are sufficient to meet obligations and fund normal operations when the primary funding sources are disrupted or other stress events threaten the bank's liquidity. Therefore, a critical component of the CFP involves identifying plausible stress events and measuring their impact on the bank's liquidity. The CFP should also describe the actions and steps management will take during a liquidity crisis. The CFP is not intended to deal with the normal day-to-day management of funding and cash flows. Instead, it should address low-probability, high-impact liquidity stress events. FCA Regulations require the board to review and approve the CFP at least every year and update it to reflect changes in the bank's risk profile and market conditions.

Evaluative questions and items to consider when examining the CFP include:

- **Stress Test Events: Does the CFP incorporate the results of acute stress events and are the types of stress scenarios conceptually sound and sufficiently robust to capture the significant threats to liquidity?** The CFP should be largely based on the results of the liquidity stress tests required by FCA Regulation [615.5134\(f\)\(3\)](#). Therefore, identifying plausible stress events along with the potential severity and duration of these events is critical. Stress events are those that may have a significant impact on the bank's liquidity given its unique balance sheet structure, business lines, organizational structure, and other characteristics. Stress tests should combine different scenarios, where plausible, and may also incorporate reverse stress testing to help identify scenarios that could threaten liquidity. In addition, the bank may need to conduct studies to support stress test assumptions (e.g., assumed draw rates on unfunded commitments). Examples of possible stress events and scenarios include:
 - Disruptions in the market and in the bank's ability to issue debt.
 - Reduced market access or unprecedented increases in funding costs and credit spreads.
 - Difficulties in renewing or replacing funding with desired terms and structures.

- Off-balance sheet contingencies (e.g., loan commitments, guarantees, letters of credit, litigation, joint and several liability) and unexpected draws on unfunded commitments at the bank and affiliated associations.
 - Requirements to pledge collateral with counterparties, including event triggers in legal agreements that require collateral posting or variation margin.
 - Rapid increase in loan demand at the bank or affiliated associations.
 - Declines in the value of investments held for liquidity, or increased discount rates on investments posted as collateral.
 - Inability to convert investments into cash through sale or the repurchase market.
 - Runoff of MIBs at the bank and VACP accounts at affiliated associations.
 - Inability to draw on supplemental lines of credit.
 - Inability to timely sell assets or participations in assets.
 - Significant deterioration in the risk profile and financial performance of the bank, consolidated district, or System as a whole.
- **Stress Test Measurement: Do stress tests adequately measure expected funding needs and funding capacity during each stress event?** The stress tests should typically evaluate total sources and uses of funds under each stress event. More specifically, the stress tests should analyze the potential impact of the event on pro forma cash inflows and outflows as required by FCA Regulation [615.5134\(f\)\(3\)](#), including draws from the liquidity reserve and alternative funding sources. The timing of the cash flows should be measured for the purpose of identifying when funding shortfalls will occur, assessing severity levels over the course of the stress event, and estimating the bank's liquidity survival horizon (e.g., number of days before liquidity reserves are depleted). Stress tests should also measure the potential impact of the stress event on profitability and solvency, as required by the regulation, because significant deterioration could exacerbate and compound threats to liquidity. Models used for stress tests should be managed in accordance with the institution's MRM framework and related FCA guidance, which is addressed in the *Monitoring & Controls* procedure.
 - **Action Plans: Does the CFP define the contingent actions and steps the bank will take during a liquidity crisis?** A rapid response to a developing liquidity crisis is essential. Therefore, to facilitate and speed decision-making, the CFP should describe the potential actions that may be executed (FCA Regulation [615.5134\(f\)\(4\)](#)). The actions should be differentiated depending on the severity and type of crisis. For example, actions taken during the early stages of a developing event would be much different from those taken when it escalates into a severe funding crisis. In addition, different types of crises generally require different responses and actions. Action plans addressing communications with investors, counterparties, media, shareholders, regulators, and other stakeholders are especially important to mitigate the increasing reputation concerns during a liquidity event. Action plans should address the changes in reporting as the stress situation intensifies. For example, during a severe crisis, management may need daily updates and reporting on market and funding conditions, debt issuance, funding spreads, cash position, days of liquidity, ability to monetize liquidity reserves, time required to liquidate each asset class, cash flow demands (including variation margin projections), and credit default swap spreads for significant counterparties. In addition, FCA Regulation [615.5134\(f\)\(2\)](#) requires action plans to identify the alternative funding sources the bank can implement when the ability to issue debt is impeded. This must include arrangements for pledging collateral to secure alternative funding and possible initiatives to raise additional capital. The CFP should also contain actions that would be implemented in the event of a Fedwire protracted outage.

- **Testing: Are action plans routinely tested to provide assurance they will be available and can be readily executed during a liquidity crisis?** The liquidity reserve and other backup funding sources are rarely used in the normal course of business. Therefore, routine testing of various elements in the CFP is necessary to assess their reliability and to identify potential impediments in implementation. For example, establishing master repo agreements and periodically entering into repo transactions with counterparties would improve the probability that they will be accessible during a liquidity crisis. Communications, coordination, and decision-making strategies may also need to be tested. It may be impractical to test some action plans in the CFP, such as liquidation of assets. In these instances, the bank may need to test the operational components underlying the action plan, such as ensuring roles, responsibilities, and legal documents are up-to-date. While testing is important, it does not guarantee that contingent funding sources will remain available within expected terms or time frames during real stress events. The CFP should address this uncertainty.

- **Early Warning Indicators: Does the CFP establish effective early warning indicators for identifying emerging liquidity risks?** The bank should establish monitoring and early warning systems that trigger action plans in the CFP at the early stages of an emerging liquidity event. Through early recognition, an institution can either prevent a crisis or proactively position itself into progressive states of readiness as the liquidity event evolves. One option is to develop green-yellow-red dashboards for key liquidity risk indicators. Such dashboards can be used to build an escalation scheme in action plans and reporting that will be implemented at the various stages of an emerging liquidity crisis. Examples of early warning indicators include significant changes in the following:
 - Negative publicity
 - Declining market and economic conditions
 - Increasing System or government-sponsored enterprise debt spreads
 - Reduced debt issuance flexibility
 - Increasing interest rate volatility
 - Liquidity reserve impairment
 - Declining liquidity survival horizons and days of liquidity
 - Increasing asset growth or other liquidity demands
 - Declining credit ratings or negative watchlist from credit rating agencies
 - Declining CIPA scores
 - Declining performance in relation to MAA covenants
 - Increasing risk profile or declining financial performance
 - Declining agricultural conditions
 - Inability to sell participations in assets
 - Declining access to repo agreements
 - Increasing collateral margin requirements
 - Increasing off-balance sheet items
 - Declining condition of other System banks

- **Crisis Management: Does the CFP define responsibilities and an administrative structure for implementing the plan?** The CFP should assign the personnel responsible for carrying out the plan, as required by FCA Regulation [615.5134\(f\)\(4\)](#). This should include clearly defining roles and responsibilities for responding to liquidity events and implementing the plan. In particular, the bank should establish a crisis management team and identify team

member contact information and the liquidity events that would activate this team. Examples of responsibilities that could be defined include updating the CFP, testing action plans, monitoring early warning indicators, declaring a liquidity event, invoking action plans, escalating the response, and initiating communications with members of the team, management, and board. Changes in delegated authorities should also be defined. For example, during a liquidity crisis, decisions dealing with funding, asset liquidation, and loan origination could require prior approval by the crisis management team. The CFP should link to the bank's business continuity planning where applicable.

5. Audit:

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

Guidance:

The internal audit and review program is a key mechanism for ensuring liquidity 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 liquidity management to ensure compliance with applicable criteria. The audit risk assessment and scope should address liquidity management topics, and audit frequency should be commensurate with the complexity of the institution's operations and risk profile. For example, audits of liquidity management at banks should be more frequent and in-depth than audits at associations. A reliable audit program provides the board reasonable assurance that liquidity management is sound and liquidity reporting is complete and accurate.

Note: This procedure focuses on evaluating the reliability and effectiveness of internal audits and reviews in this topical area. Refer to the *Audit & Review Programs* topic in the Examination Manual for guidance on examining the overall internal audit and review program.

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

- **Audit Coverage: Is there periodic audit or review coverage of liquidity 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 liquidity management processes?** The scope should cover the primary processes and controls within the area being audited or reviewed. The depth of work, including transaction testing, 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:
 - Liquidity policy and procedures.
 - Compliance with liquidity-related regulations, policies, and procedures.

- Plans, systems, internal controls, and reporting systems for monitoring and managing liquidity.
 - VACP and MIB programs and their impact on liquidity risk.
 - Contingency funding plans and related stress testing (banks only).
 - Management of all significant liquidity models (e.g., models for liquidity stress tests, which banks are required to complete) including consistency with the institution's overall model risk management framework.
 - 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 liquidity 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.