FEDERAL HOUSING FINANCE AGENCY

ADVISORY BULLETIN

AB 2018-06: LIQUIDITY RISK MANAGEMENT

Purpose

This advisory bulletin (AB) communicates to Fannie Mae and Freddie Mac (the Enterprises) the Federal Housing Finance Agency's (FHFA) guidance for the management of liquidity risk. Strong liquidity risk management supports safe and sound operations by enabling the Enterprises to meet their financial obligations when they come due without incurring unacceptable losses.

This advisory bulletin summarizes the principles of sound liquidity risk management, and, where appropriate, aligns with the regulation of other financial intermediaries. FHFA expects the Enterprises to use liquidity metrics that are commensurate with their funds management strategies and provide a comprehensive view of their liquidity risk to ensure that sufficient funds are available at a reasonable cost to meet potential demands.

This AB supersedes AB 2014-01 (*Liquidity Risk Management*).

Background

Liquidity risk is the risk that an Enterprise will be unable to meet its financial obligations as they come due without incurring unacceptable losses. Strong liquidity risk management enables an Enterprise to be financially sound to perform its public mission and to limit and control shortfalls in cash. The guidance emphasizes the importance of cashflow projections, diversified funding sources, stress testing, a cushion of liquid assets, and a formal, well-developed contingency funding plan as primary tools for measuring and managing liquidity risk.

The standards for safe and sound operations for the Enterprises are set forth in the Prudential Management and Operations Standards (PMOS) at 12 CFR part 1236. Standard 5 (Adequacy and Maintenance of Liquidity and Reserves) states that each Enterprise should establish a liquidity management framework, articulate liquidity risk tolerances; and establish a process for identifying, measuring, monitoring, controlling, and reporting its liquidity position and liquidity risk exposures. In addition, Standard 5 includes guidelines for conducting stress tests to identify sources of potential liquidity strain and guidelines for establishing contingency funding plans.

Standard 8 (Overall Risk Management Processes) states the expectation for the Enterprises to establish risk management practices that measure, monitor, and control liquidity risk. The PMOS describe responsibilities of boards of directors and management for all Standards.

Guidance

Each Enterprise is expected to be able to identify, measure, monitor, control, and report its liquidity exposures by accurately identifying both existing and emerging risks, and quantifying the primary sources of liquidity risk. Effective liquidity risk management should include:

- Adequate board of directors (board) and senior management oversight;
- Appropriate liquidity management policies, procedures, and limits;
- Appropriate risk measurement methodology, monitoring, and reporting systems; and
- An effective contingency funding plan.

The Enterprise should address risks unique to it with regard to liquidity, such as access to debt markets and the ability to sell or repurchase securities during a crisis.

Board of Directors and Senior Management Oversight

An Enterprise's board is ultimately responsible for the liquidity risk assumed by the Enterprise and for guiding the strategic direction of liquidity risk management. The board, or a committee thereof, should establish and approve appropriate liquidity risk tolerances and limits, and oversee management's establishment and approval of liquidity management strategies, policies, and procedures. The board should review these at least annually. In addition, the board is expected to have an understanding of the Enterprise's business activities and associated liquidity risk. The board should understand the cash inflows and outflows that dictate an Enterprise's liquidity needs (*e.g.*, trust remittance cycle, guarantee fee, cash window, and mortgage purchase commitments). The board is expected to ensure that senior management has the necessary expertise to effectively manage liquidity risk.[1]

Senior management oversees the daily and long-term management of liquidity risk. As part of an effective liquidity risk management program, senior management:

- Develops liquidity risk management strategies, policies, and practices for approval by the board;

[1] Liquidity risk management policies and procedures should establish the roles and responsibilities of groups involved in liquidity risk management, and have clear escalation procedures in the event of a breach of the liquidity limits. This would include board-level risk limits and action plans in the event of a breach of risk limits. The standards for board governance in 12 CFR part 1239, FHFA's Corporate Governance Rule, were issued November 2015. Section 1239.11 addresses risk management.

- Implements sound internal controls for managing liquidity risk;
- Establishes effective information systems and contingency funding plans; and
- Establishes reporting systems that produce timely and accurate information on the Enterprise's liquidity position and sources of risk exposure, including concentration risk, and provides regular reports to the board.

These responsibilities may be delegated to a board-approved management committee.

The Enterprise's organizational structure should clearly assign responsibility, authority, and relationships for managing liquidity risk and management should ensure that personnel are competent and appropriately trained with regard to the Enterprise's established systems, policies and tolerances.

FHFA expects a Treasury unit to be responsible for the ownership and management of the liquidity risk limits. The unit should also be responsible for the identification, assessment, mitigation, control, monitoring, and reporting of liquidity risk, and for the Enterprise's adherence to risk policies, standards, and limits.

A risk management unit should be responsible for the independent oversight and monitoring of liquidity risk. The risk management unit's responsibilities would normally include:

- Ensuring that risk limits for liquidity risk are meaningful, assessing liquidity risk against key risk indicators;
- Independently reporting on liquidity risk issues;
- Escalating liquidity risk breaches;
- Stress testing liquidity risk limits;
- Providing senior management and the board with reports on liquidity risk management and gaps between supervisory guidance, industry sound practices, and practices at the Enterprise; and
- Ensuring that the Treasury unit has an effective process in place to identify, assess, monitor, and report on key liquidity risks.

Appropriate Liquidity Management Policies, Procedures, and Limits

A robust set of liquidity risk management policies would appropriately include:

- Standards regarding day-to-day operational liquidity needs;
- Plans for dealing with contingent liquidity needs, including potential temporary, intermediate-term, and long-term liquidity disruptions;
- Board-established liquidity risk tolerances, and procedures establish steps to manage the risk exposures within those limits.

- Methodology for determining the Enterprise's operational and contingency liquidity needs;
- Characteristics of investments that can be held for liquidity purposes;
- Identification of investments that can be liquidated with minimal loss during times of stress;
- Provisions for documenting and periodically reviewing assumptions used in liquidity projections;
- Contingency funding plan for the Enterprise's ability to access capital markets during periods of market stress; and
- The nature and frequency of liquidity risk reporting for management and the board.

Liquidity risk tolerances or limits should be appropriate for the complexity and liquidity risk profile of the Enterprise and should employ quantitative targets. These limits, tolerances, and guidelines will be most effective if they include items such as:

- Discrete or cumulative cashflow mismatches or gaps (sources and uses of funds) over specified future short- and long-term time horizons under both expected and adverse business conditions. These may be expressed as cashflow coverage ratios or as specific aggregate amounts;
- Target amounts of unpledged, high-quality liquid asset reserves expressed as aggregate amounts or as ratios;
- Asset concentrations, especially with respect to more complex exposures that are illiquid or difficult to value, e.g. the size of the position relative to the depth of the market;
- Funding concentrations that address diversification issues, such as dependency on a few sources of borrowed funds; and
- Contingent liability metrics, such as amounts of unfunded commitments and lines of credit relative to available funding.

Appropriate Risk Measurement Methodology, Monitoring, and Reporting Systems

FHFA expects an Enterprise's measurement of liquidity to include metrics for intraday liquidity, short-term cash needs (*e.g.*, 30 days), access to collateral to manage cash needs over the medium term (*e.g.*, 365 days), and a general congruence between the maturity profiles of the assets and liabilities. An Enterprise should also consider common industry practices and regulatory standards.[2]

[2] On October 10, 2014, the Office of the Comptroller of the Currency, the Board of Governors of the Federal Reserve System, and the Federal Deposit Insurance Corporation collectively issued a final rule that implemented a quantitative liquidity requirement, the Liquidity Coverage Ratio (LCR). 12 CFR part 50 (OCC); 12 CFR part 249

FHFA expects that an Enterprise's measurement systems should reasonably measure liquidity exposures, identify potential liquidity shortfalls, and simulate various market scenarios, including stress scenarios. Measurement systems should include robust models for projecting cashflows and an Enterprise's liquidity needs over appropriate time horizons, ranging from intraday to longer-term liquidity needs of one year or more. These systems are expected (i) to measure tenor, liquidation costs, time to liquidate assets, and liquidity provider concentrations to ensure that reliance on certain funding structures or sources of funds is appropriately identified and controlled, and (ii) to capture all significant on- and off-balance sheet items and be adjusted as products or risks change.

A. Cashflow Modeling

Since an Enterprise's cashflows depend on choices mortgage borrowers make to prepay or extend their obligations, managing liquidity risk will be facilitated by the Enterprises' use of pro forma cashflow statements. Pro forma cashflow analysis can be used to project sources and uses of funds under various liquidity scenarios to identify potential funding gaps. In determining potential liquidity needs and risk management strategies, the possibility of losses and deterioration in valuations from potential credit and market events should be considered. The Enterprise should account for this in assessing the feasibility and impact of asset sales on its liquidity position during stress events. Stress events should include national and regional events and cases where the catastrophic events occur simultaneously. The Enterprise should be able to calculate all of its collateral positions in a timely manner, including the value of assets currently pledged relative to the amount of security required and unencumbered assets available to be pledged. The Enterprise should be aware of the operational and timing requirements associated with accessing collateral given its physical location (*i.e.*, the custodian entity or securities settlement system with which collateral is held). The Enterprise should also fully address the potential demand for additional collateral arising from various types of contractual contingencies during periods of both market-wide and Enterprise idiosyncratic stress.

To capture a variety of stresses, management's pro forma cashflow analysis should incorporate multiple scenarios that consider the general and unique risks faced by the Enterprise.

Assumptions used in pro forma cashflow projections should be reasonable and appropriate, adequately documented, and periodically reviewed by the appropriate risk management unit and the model oversight group at the Enterprises. Assumptions should consider a wide range of potential outcomes with regard to the stability of borrowings and securitization. Sensitivity tests

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(Regulation WW) (Federal Reserve Board); 12 CFR part 329 (FDIC). On June 1, 2016, the FFIEC interagency rule for the Net Stable Funding Ratio: Liquidity Risk Measurement Standards and Disclosure Requirements (NSFR) was proposed. 81 FR 35124 through 35183 (June 1, 2016). These sources address issues of short term liquidity (*e.g.*, the adequacy of high quality assets holdings) and scale of mismatch of cashflows over the intermediate term. As of this date, the Net Stable Funding Ratio has not been adopted, but the proposal remains a useful reference point.

should be performed to measure the effects that material changes to assumptions would have on related accounts.

B. Management Reporting

To effectively fulfill senior management's responsibilities with respect to liquidity risk management, it is necessary that senior management receive sufficient reports on Enterprise's liquidity risk management. An Enterprise should generate such reports at least monthly, including the level and trend of the Enterprise's liquidity risk; and to report to the board, or a board committee, quarterly. If liquidity risk is high, or if it is moderate and increasing, more frequent reports are likely to be called for. Reportable items may include:

- Cashflow gaps;
- Asset and funding concentrations;
- Critical assumptions used in cashflow projections;
- Key early warning or risk indicators;
- Funding availability;
- Status of contingent funding sources; and
- Collateral usage.

Contingency Funding Plan (CFP)

Funding decisions can be influenced by unplanned events. Such events include the inability to fund asset growth; difficulty renewing or replacing funding as it matures;[3] the exercise of options by customers to prepay or to draw down lines of credit; legal or operational risks; the demise of a business line; and market disruptions. Funding and investment strategies that are concentrated in one or two business lines or relationships, such as the Enterprises' strategies, typically are at greater risk of being disrupted by adverse events.

An Enterprise should examine contracts and arrangements associated with major lines of business and funding sources to identify low-probability/high-impact events that could adversely affect liquidity. Contingency plans that incorporate practical solutions that can be adopted quickly to address such contingencies as they arise will minimize exposure to such events.

An Enterprise's CFP should be customized to the liquidity risk profile of the Enterprise, and should identify the types of stress events which may be faced. The overall impact of a given stress event should be considered, including both direct and indirect effects. To be effective in mitigating foreseeable stress events, the CFP should:

[3] Critical rollover needs can be identified using funding ladders.

- Define responsibilities and decision-making authority so that all personnel understand their role during a problem-funding situation;
- Include an assessment of the possible liquidity events that an Enterprise might encounter;
- Detail how management will monitor for liquidity events, typically through stress testing of various scenarios in a pro forma cashflow format; and
- Identify and assess the adequacy of contingency funding sources. The plan should identify any back-up facilities (lines of credit), the conditions and limitations to their use, and the circumstances where the Enterprise might use such facilities. Management should understand the various legal, financial, and logistical constraints, such as notice periods, collateral requirements, or net worth covenants, that could affect the Enterprise's ability to use back-up facilities. They should test back-up facilities annually.

CFPs are particularly important in institutions such as the Enterprises that rely on securitization. This is because an Enterprise's income is generated from its volume of business. The Enterprises have contracts to purchase fixed volumes of loans from mortgage originators, and they are dependent on the To Be Announced (TBA) market to generate corresponding cash inflows. CFPs are expected to address scenarios where securitization or asset sales become rapidly unavailable. The Enterprise should have plans in place to address disruptions in the capital markets that would result in delayed sales of loans as well as required increases in retained interests and other credit enhancements.

Related Guidance

12 CFR part 1720 Safety and Soundness Standards, August 30, 2002.

12 CFR part 1236 Prudential Management and Operations Standards, Appendix.

12 CFR Part 249 Liquidity Coverage Ratio: Liquidity Risk Measurement Standards, October 10, 2014.

12 CFR part 1239 Responsibilities of Boards of Directors, Corporate Practices, and Corporate Governance, December 21, 2015.

Proposed Rule on Net Stable Funding Ratio: Liquidity Risk Measurement Standards and Disclosure Requirements, 81 FR 35124 through 35183, June 1, 2016.

Model Risk Management Guidance, Federal Housing Finance Agency Advisory Bulletin 2013-07, November 20, 2013.

Liquidity Risk Management, Federal Housing Finance Agency Advisory Bulletin 2014-01, February 18, 2014 (superseded).

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