

Basics of Liquidity Risk Management

For Community Financial Institutions under \$3 Billion in
Assets

9/5/2013

By: Lawrence P. Poppert III, CPA



Lawrence P. Poppert, III CPA

Managing Principal

Tel: 215 880-8261

lpoppert@LiquidityRiskSolutions.com

Introduction

Not too long ago, community banks and credit unions could satisfy much of their liquidity management responsibilities by creating annual budgets, liquidity forecasts and maintaining sufficient levels of on balance sheet liquid assets. Some institutions gave little, if any, thought to short term or prolonged liquidity events that could harm the institution, nor was there much regulatory guidance mandating the consideration of such possible events.

More recently, however, through lessons learned during the financial crises of 2008, in conjunction with newly issued regulatory guidance over the past several years, most institutions have created a more comprehensive approach to Liquidity Risk Management. Greater emphasis is being placed on contingency planning and thoughtful metrics to proactively identify potential unexpected liquidity situations, or Liquidity Events.

The main objective of effective Liquidity Risk Management is to develop a comprehensive management process for identification, measuring, monitoring, and controlling liquidity risk. To that end, the management components discussed below represent the basic building blocks necessary to create a sound Liquidity Risk Management process. These areas are congruent with relevant regulatory guidance on Liquidity Risk Management at the time of this writing. The board and responsible liquidity management oversight committees should understand what is being presented in the liquidity management reports and why. Remember, this is not just an exercise in projecting liquidity; it is a continual planning and evaluation process. For those who have experienced a pervasive liquidity event, they know that previously available solutions start to disappear quickly. Lines of credit that were available suddenly are not. Bank regulators may prohibit new-brokered certificates and deposit retentions may plummet. The more prolonged and severe a liquidity event is, the fewer options will be available to remedy the situation. Therefore, contingency planning is essential. The following basic foundation should exist in a meaningful and compliant Liquidity Risk Management program:

“In your peer group, your regulators are now expecting your institution to be compliant with their published Liquidity Risk Management requirements”

Governance

Oversight

Board Responsibilities

According to the Interagency Policy Statement on Fund Management and Liquidity Risk, (March 2010) “the Board of Directors is ultimately responsible for the liquidity risk assumed by the institution”. The board’s responsibility is to oversee the development of related liquidity risk management strategies, policies and procedures. This can be accomplished either directly, or through a board delegated committee. Ongoing review of information necessary to understand the liquidity risks of the institution, including reviewing the institution’s Contingency Funding Plan (CFP) are required. The board must also set the liquidity risk tolerances for the institution, and communicate them to management through board-approved policies.

Senior Management Responsibilities

Senior management is responsible for ensuring that the institution’s liquidity risk is managed in accordance with the board-approved strategies, policies, and procedures. This includes the daily liquidity management and ensuring the liquidity buffer is adequate to address any planned or unplanned liquidity shortfalls. Management should also develop a framework that allows measurement, monitoring and reporting on the liquidity risk profile of the institution.

Management is also responsible for developing liquidity scenarios and the accompanying Early Warning Indicators (EWIs) necessary to identify potential liquidity events, and to stress test key assumptions within the varying stress levels of the liquidity scenarios. The CFP should be tested and reviewed regularly. All assumptions used in liquidity risk reporting should be transparent, documented, and approved by the board of directors, or its designated committee.

Regulatory Compliance

In your peer group, your regulators are now expecting your institution to be compliant with published Liquidity Risk Management requirements. Compliance with these regulations have been expected from larger institutions for some time, but are now common examination comments for affected community institutions, especially those with other challenges, such as asset quality or capital adequacy.

Planning

Contingency Funding Plan (CFP)

Once a liquidity event is in process, the institution's ability to address the event and take remedial action become more limited as time passes. Therefore, all financial institutions must have a Contingency Funding Plan (CFP) document. "A CFP provides a documented framework for managing unexpected liquidity situations. The objective of the CFP is to ensure that the institution's sources of liquidity are sufficient to fund normal operating requirements under contingent events"¹. The Contingency Funding Plan is the roadmap that is used to plan for, identify and manage all stages of the liquidity event.

There are various types of liquidity events that should be articulated in the institution's Scenarios (discussed below). Some originate as a result of internal circumstances (institution specific), while others are the result of external factors. Liquidity events can be of short duration, such as a sudden operations loss, or the event could be prolonged, such as capital deterioration resulting from loan losses. Therefore, to properly manage liquidity events under different circumstances, multiple liquidity event scenarios should be developed and their related expected cash flows modeled, for each scenario, at each level of stress.

"We have seen many institutions caught by surprise by their regulator's comments for non-compliance. What was appropriate for last year's examination, may not be for your next one"

Once the scenarios are developed, and the potential amount and timing of the liquidity needs are identified in these scenarios, the CFP can then address two important aspects of liquidity management. That is, knowing when the liquidity event is materializing, and what steps need to be implemented to manage the event. Predicting the event and assessing the levels of stress and timing are typically accomplished using Early Warning Indicators, as discussed below. EWI's are also, what generally determines the possible invocation of the CFP. Managing the event is delineated within the CFP itself.

For community financial institutions, an appropriate CFP will address:

- Early identification of the of possible liquidity event utilizing Early Warning Indicators

¹ INTERAGENCY POLICY STATEMENT ON FUNDING AND LIQUIDITY RISK MANAGEMENT March 17, 2010

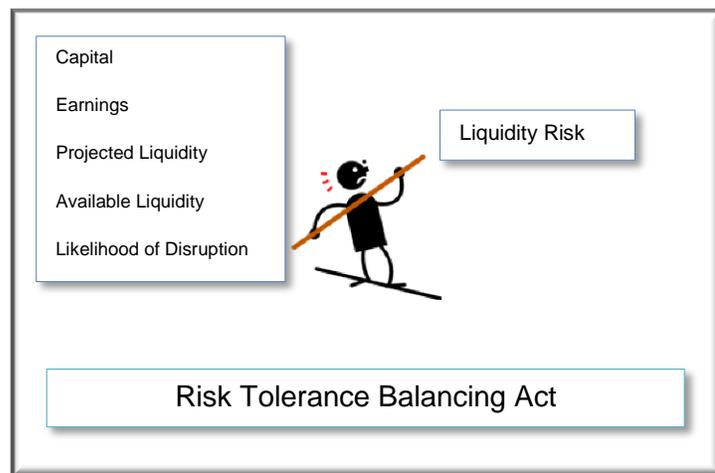
- Identifying the number of triggers or EWIs that would cause the CFP to be invoked or escalated (once invoked)
- Establishing contingency plans for dealing with cash flow shortfalls of any nature
- Delineate clear policies and action plans to manage and monitor potential liquidity events at all severity levels
- Establishing a Liquidity Event Management Team which will create clear lines of responsibilities, communication and reporting before and during a liquidity event
- Identification of alternative liquidity sources (sale of assets/additional sources of funds)
- The potential impact that Prompt Corrective Action (PCA) could have on the financial institution, if it were to become less than well capitalized

Risk Tolerances

One of the more difficult responsibilities the board must fulfill with respect to liquidity management is establishing the institution's liquidity risk tolerance. There are several considerations the board must weigh while establishing the risk tolerance of the institutions. The institution's earnings and capital, available liquidity, projected liquidity, regulatory expectations and the likelihood of a disruption of funding should all be contemplated. There is also an inherent tradeoff between liquidity risk and short-term profits.

Maintaining high liquid balances on the balance sheet will generally negatively affect earnings, but will reduce liquidity risk, (and vice-versa). Therefore, risk limits should consider the strength of the organization, the ability to convert financial instruments to cash, current liquidity projections and stress results as well as other

factors that would affect liquidity. The board of directors with input from management should then define the risk tolerance and associated limits, and such limits should be made part of the liquidity policy.



Measurement

Use of Liquidity Scenarios

When discussing Scenarios in the context of Liquidity Risk Management, we are referring to adverse scenarios that could cause temporary, intermediate-term, and/or long-term liquidity disruptions. Identifying these Scenarios prior to their occurrence will allow the institution to plan for, and accordingly, possibly remedy the liquidity disruption in its early stages. Liquidity Scenarios should:

- Include events and circumstances both internal and external to the institution
- Consist of varying levels of increasing stress
- Include assumptions with a long term and short term durations
- Be well documented, with approved and transparent assumptions
- Be monitored using Early Warning Indicators (EWIs)
- Be addressed in the institution's Contingency Funding Plan (CFP)
- Be stress tested, especially key assumptions

Developing Scenarios

There are various techniques of developing Scenarios. A practical method is to create a chronological story line, where one or more events conspire to create a liquidity event (a disruption to liquidity). Scenarios could have a very short, high-impact effect on liquidity, such as a sudden operating loss due to theft within the organization, or could be more prolonged and chronic, such as capital deterioration resulting from bad loans. This methodology for developing Scenarios is practical, as it will allow the institution to concurrently develop the Early Warning Indicators necessary to determine whether the liquidity event is occurring, and at what level of severity the event is measured, e.g. mild, moderate or severe.

Selecting Assumptions

Assumptions that drive the base case (forecast) scenario and the stressed scenarios should be well documented and approved. It is not appropriate to apply blanket assumptions such as, "money markets will lose 5%, 10% and 15% under a mild, moderate and severe stress environment, respectively". Assumptions should be supported by empirical data where practicable, such as past performance, or benchmarked to a peer institution if available. Note past performance is not always indicative of future outcomes

Stress Testing Scenarios

Once the Scenarios are developed and assumptions documented, the Scenarios should be stress tested. That is, key assumptions that the liquidity model is utilizing should be changed to measure the impact on future liquidity and liquidity sources. These stress tests will typically include deterioration of deposits, increase in customer loan draws and reduction of available borrowings from correspondent institutions. Other stresses could include the inability to obtain brokered certificates, or a reduction in the market value of available collateral (such as securities designated as available-for-sale), which may preclude sales due to the resulting impact to capital, upon recognition of a loss. Stress tests results should be compared to policy limits for compliance, for example, survival horizons.

Monitoring

Monitoring liquidity risk metrics and the results of stress testing are essential parts to the ability to quickly respond to a liquidity crises. Historically institutions have been monitoring their liquidity using common ratios, often found in the Uniform Bank Performance Report for their peer group. However, many of these ratios, if not all, are historic in nature, and are not necessarily indicative of future unforeseen liquidity events. Better practices would be to create additional institution specific and external indicators of liquidity, that are both predictive in nature (as opposed to historical) and relevant to the institution's liquidity event scenarios. These indicators are called Early Warning Indicators.

Early Warning Indicators (EWI)

To recognize the potential emergence of a liquidity event as reflected in the liquidity Scenarios, institutions should develop Early Warning Indicators (EWI), also known as Key Risk Indicators (KRI) or Triggers. These are thresholds, that when breached, alert both Liquidity Risk Managers and Liquidity and/or Asset Liability Committees that a potential (negative) liquidity event may be developing at their institution. EWIs are also the catalyst for the invocation of the institution's Contingency Funding Plan. Early Warning Indicators and their respective limits are selected by the institution, and are made part of the Liquidity Policy and Contingency Funding Plan (CFP).

Using EWI's

EWI's like most other metrics are monitored and compared to liquidity policy limits and guidelines. The breach of one or more of the EWI's does not necessarily mean that there will be a disruption in liquidity, nor does it mandate the institution to take any specific action, other than

to call a meeting and discuss the cause of the EWIs exceeding their pre-defined policy limits. EWIs are simply a tool to assist management in identifying potential liquidity events as early as possible. After ascertaining the cause of the EWIs exceeding prescribed limits, management may decide to invoke or escalate the CFP, or conclude that there is a valid reason the EWIs were triggered, and may take no further action. As defined in the CFP or liquidity policy, the triggering of a certain number of EWIs exceeding their policy limits should cause an immediate meeting of the liquidity event management team or similar committee for evaluation of the situation.

Selection of EWIs

Depending on the institution's complexity and risk appetite, anywhere from 10 to 30 EWIs are normally defined. Early Warning Indicators should be quantitative and qualitative in nature. For example, a [non-performing loan to total loan] ratio would be considered a quantitative EWI, whereas qualitative EWIs can typically be answered in a Yes or No fashion. An example of a qualitative EWI could be, "have changes to what is considered acceptable collateral securing our borrowing capacity at the Federal Home Loan Bank been communicated?"

EWIs can also be classified as either lagging or leading indicators. An example of a lagging indicator would be the tier one leveraged capital ratio, as it is calculated using historical data. A leading (or concurrent) indicator by contrast, is one that is based upon current or future data. Leading indicators can be more useful than lagging indicators, especially in the early stages of a liquidity event, as leading indicators may allow the early identification of a potential liquidity event, thus affording the institution more time to address and prepare for the event.

Liquidity Coverage

Survival Horizons

All of the pre-defined liquidity event scenarios should be modeled at each level of stress. With four liquidity event scenarios, at three levels of stress, that's 12 scenarios plus the base case.

One of the more important pieces of information your stress tests will convey are the survival horizons. Survival horizons illustrate over what period the available liquidity will be exhausted, in each scenario at each stress level. The governance documents (liquidity policy) should define what the acceptable survival horizons should be for each scenario at each level of stress based upon the institutions risk appetite.

Counter Balancing Capacities (CBC)

Counter Balancing Capacities are possible options that may increase liquidity, or slow the decline in liquidity. Most common forms of CBC are available lines of credit, available assets that could be readily converted to liquid assets or changes in balance sheet management, such as extending terms of certificates of deposits, or curtailing lending activities. Counter Balancing Capacity should be considered in all of your liquidity management modeling, and presented as a separate part of the liquidity risk management reporting.

Reporting

The two components of reporting that should be considered when communicating liquidity risk are content and format. Both should address key assumptions, forecasts and relevant metrics, such as survival horizons. Trend reports should be used where practicable, for example, when reporting Early Warning Indicators. Reports should make it very clear to the reader:

- what liquidity is needed over given time horizons
- what liquidity (and CBC) is available to satisfy that need
- how those results, available liquidity and CBC are impacted when stressed
- what are the survival horizons
- is the institution in compliance with policy limits

Graphical representations of data or summary tables are very helpful when presenting to committee or board members. Detailed data reports and assumptions can be presented in the appendices. It is also useful to present the liquidity risk management reports separate from the ALCO reports. Liquidity risk reports warrant their own discussion, and may sometimes be overshadowed by the voluminous ALCO reports and related discussions at the same committee meeting, if presented concurrently.

Note:

It is clear that regulators expect their institutions to have a comprehensive, well-documented, thoughtful and proactive process in place to properly manage and monitor liquidity risk. No longer is it permissible to meet your institutions liquidity risk responsibilities by just maintaining high levels of liquidity on the balance sheet and present historical liquidity ratios. We have seen many institutions caught by surprise by their regulator's comments for non-compliance with

liquidity risk regulations. What was appropriate for last year's examination may not be for your next examination. Don't let that happen to your institution.

How we can help:

Given the spectrum of the CAMELS ratings, liquidity risk is probably the easiest area to maintain compliance. We have worked with many institutions to assist in the creation, documentation and implementation of their liquidity risk management functions. Our popular pre-assessment review allows us to informally (or formally) review your liquidity risk implementation and processes to ensure you are regulatory compliant. The pre-assessment also determines if you have sound management practices in place for liquidity risk management. Your final report is presented with findings and related recommendations noting associated levels of priority. This format is very useful as it allows institutions to prioritize and remedy deficiencies quickly.

Since reporting can be a challenge for many institutions, rather than develop your own report set from scratch, we offer a co-sourced reporting solution that allows the data from your ALM model (whether internal or outsourced) to be imported and seamlessly integrated into our proprietary Liquidity Risk Management Reporting Model. We will model (stress test) and create all supporting reports for your institution. You will have custom reports delivered to your institution using your data, your assumptions and your scenarios; however, we will perform the modeling and prepare the necessary reports (the co-sourced solution).

Contact Information:

Liquidity Risk Solutions
Lawrence P. Poppert, III CPA
Managing Principal
1815 Horace Avenue
Abington, PA 19001
Telephone 215 880-8261
lpoppert@LiquidityRiskSolutions.com
www.LiquidityRiskSolutions.com