Liquidity Risk Management and the Regulatory Environment
Introduction

It is increasingly clear that the current downturn is fundamentally different from recessions of recent decades. Many believe that we are experiencing not merely another turn of the business cycle, but a restructuring of the economic order. For some organizations, near-term survival is the only agenda item. Others are peering through the fog of uncertainty, thinking about how to position themselves once the crisis has passed and things return to normal.
In addition to the aggressive financial environment, new rules on bank capital and funding have been issued by the Basel Committee on Banking Supervision. Nowadays, banks in Europe and in the United States face the challenge of finding ways to substantially boost their capital and funding under these new rules, which are intended to make the international banking system more resilient by addressing many of the flaws that became apparent during the liquidity crisis.

In this paper, we will primarily discuss liquidity management and the challenges created by the new regulatory requirements.

What is liquidity risk management?

Liquidity risk management is part of the larger risk management framework of the financial services industry, which concerns all financial institutions. Studying liquidity risk management issues is a critical but complex subject. Failure to address the matter may lead to dire consequences, including banking collapse, and by extension, the stability of the financial system. In fact, most bank failures are due to issues around managing liquidity risk.

This is also the reason why regulators are very concerned with the liquidity position of financial institutions and many financial industry professionals believe that the current thinking of regulators appears to center around the strengthening of liquidity framework.
New Basel III regulatory liquidity requirements

During the last few years, the Basel Committee on Banking Supervision (BCBS) has reviewed its capital adequacy standards and the Basel III Accords are the outcome of that review. One main evolution of Basel III (versus Basel II) revolves around the imposition of multi-dimensional regulations and supervision using capital, liquidity and the leverage ratios, which covers the bank’s entire balance sheet.

These new requirements will take effect around March of 2014. Full implementation will be mandatory on January 1, 2019.

Since January 2013, the Capital Requirement Directive 4 (CRD4) proposal helps implement Basel III in Europe while also covering other areas, such as governance and transparency of financial institutions. The CRD4 contains the Capital Requirements Regulation (CRR) which will be directly applicable and concerns Pillar 1 (leverage ratio) and Pillar 3 (market discipline) and the CRD which would be implemented through countries’ national laws and which concerns Pillar 2 (risk management and supervision).

Because one of the major contributors to the financial crisis was the inability of banks to roll over their short-term financing, Basel III introduces two new ratios: the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR), in order to help improve the banks’ short-term (LCR) and long-term (NSFR) balance sheet resilience.

By introducing these new ratios, the Basel Committee seeks to achieve the following goals:

- Promote short-term resilience of bank’s liquidity risk profile
- Improve the banking sector’s ability to absorb shocks arising from financial and economic stress
- Provide a sustainable maturity structure for assets and liabilities
- Incentive banks to fund their activities with more stable sources of funding

The “Basel Committee on Banking Supervision reforms – Basel III” document also touches on the following:

LCR

According to the Basel committee, the objective of the LCR is to ensure that a bank maintains an adequate level of high-quality liquid assets that can be converted into cash to meet its liquidity needs for a one month horizon.

Therefore, the LCR ratio estimates the gap between these high-quality liquid assets and the total net cash outflows over the next 30 calendar days under a significantly severe liquidity stress scenario. To meet Basel III requirements, the LCR should be superior to 100%.

\[
\text{LCR} = \frac{\text{Stock of high quality liquid assets}}{\text{Total net cash outflows over the next 30 calendar days}} \geq 100\%
\]

NSFR

According to the Basel committee, the objective of the NSFR is to ensure that long-term assets are funded with at least a minimum amount of stable liabilities in relation to their liquidity risk profiles and to limit over-reliance on short-term wholesale funding (for a one year horizon). The NSFR gathers several balance sheet items and weights them with the refinancing part. To meet the Basel III requirements, the NSFR should be superior to 100%.

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\text{NSFR} = \frac{\text{Available amount of stable funding}}{\text{Required amount of stable funding}} \geq 100\%
\]

Consequently, liquidity is no longer a readily available raw material and its careful management is becoming a strategic need for survival. It is also the major focus of international policy with expected delivery of supervisory requirements on an ambitious timeline. With the end of “free money,” the increased cost of funding and the unfavourable conditions on the interbank market may make liquidity a strategic resource.

In practice, experts estimate that banks in Europe and the United States will have to raise about €1.9 trillion of short-term liquidity, and about €4.5 trillion of long-term funding. The short-term liquidity gap is about 50 percent of all the liquidity that banks currently hold.

It is common knowledge that banks are already mobilizing to reprice assets and cut costs further.

Insights

Even if the LCR ratio should not have a major impact on the financial balance sheet, financial institutions will likely make an effort to reinforce their asset base in the long-term as well as reduce their balance sheet subordination to meet Basel III requirements.

Achieving an NSFR target level of over 100% is a real challenge for most financial institutions. They need to evolve and adapt their role and activity to meet regulatory expectations. An observation period precedes the application of the ratio, as part of the QIS (Quantitative Impact Study) called for in Basel III. It should be noted, the NSFR standardized calculation is used in very high stress situations:

- A greater than 100% level of NSFR ratio implies that long-term assets are funded with a minimum amount of stable liabilities
- NSFR ratios are also used in situations where banks are more constrained to conduct business in a traditional way. For example, when making decisions on long-term resources, the use of short-term NSFR weightings can help banks adjust their strategy, implementing some activities or products, while abandoning others

How to navigate in shallow waters?

Banks continue to work on getting their organization ready to support the new strategies to implement the processes, methods, and indicators, and to deploy the tools and systems to effectively manage liquidity and its risks. In order to make the changes in an efficient manner, banks may find it useful to know and understand their liquidity profile at all times and make decisions in accordance with their level of liquidity and risk appetite.
Key challenges for banks

Financial institutions with a strategy focused on extensive short-term funding or with insufficient high quality liquid assets may face important operating costs when meeting the new liquidity requirements. To produce the NSFR and LCR ratios, financial institutions would most likely have to adapt their strategy to focus on Basel III requirements.

Financial institutions will have to adjust their balance sheets, for instance by:

- Holding more high quality liquid assets and measure the encumbrance of the assets in order to reduce the level of structural subordination
- Identifying deposits subject to higher outflows via factors such as: volatility, volume, currency, location of deposits and the relationship with customers
- Improving additional medium and long-term wholesale funding

The implementation of Basel III requirements, would likely impact both business model and organizational structure of financial institutions. Indeed, financial institutions will have to create stress and scenario tests, meet new reporting requirements and model cash flows in order to respond to the new liquidity requirements, so financial institutions should expect to face significant operating cost pressures in the short-term.

As for global banks, they will have to manage both central and local requirements to meet the Basel III requirements with a minimum impact on their ability to move funding and liquidity.
Banks' liquidity management programs

When looking at banks’ liquidity management programs, they can be categorized in three groups:

1. Large global banks and global universal banks: They tend to be fairly advanced in their response to the regulatory agenda and requirements. Their organization and business model often take into account liquidity management and governance requirements, activated during the recent crisis.

2. Market active corporate and investment banks: They often have the appropriate tools to evaluate their liquidity needs and funding contingency plans. They are often focused on addressing their risk appetite strategies and the resulting organizational impacts.

3. Local banks and consumer and asset managers-type banks: They are often less proactive than large and market-active banks in addressing the regulatory agenda.

The concept of liquidity risk revolves around a bank’s ability to maintain sufficient funds to meet its commitments, which may, in turn, be related to its ability to attract deposits. It is also about matching the maturity of assets and liabilities and coping with any short-term pressures that may arise during the process of ensuring assets are fully funded.

This is a daily process which benefits from being well structured and adhered to. Banks are also aware of the benefits of developing methods and tools to monitor and control their liquidity levels for business as usual situations and setting up contingency funding reserves for addressing stressed scenarios.

Source: Accenture, Liquidity Management Framework - Implementation challenges for banks, 2011
Implementing a successful liquidity program

To manage their liquidity risks and to meet new regulatory requirements, banks may wish to define, develop and implement liquidity programs.

The implementation of such programs by both regional and large banks can be tailored to the size, nature of the business and complexity of their activities.

In order to mitigate the inefficiencies of inadequate or incoherent, long and costly solutions, a bank’s senior management may want to address the following key questions which appear in the visual below.

Key Questions and Proposals for a Successful Implementation

1. What is my liquidity and liquidity risk strategy and how is it defined (risk appetite) and managed throughout the bank?

2. Is my organization ready and adapted to manage liquidity and liquidity risk at all consolidation levels and business lines?

3. Are my products, my business and supervision processes liquidity enabled and aligned with my risk strategy?

4. Are my methods, indicators, measurements of liquidity relevant and accurate? Are my simulation capabilities up to par?

5. Are my systems and my data collection capable of supporting my liquidity measurements, methods, simulations and reporting?

6. Are my reporting and supervision systems able to cater to regulatory and internal requirements?

7. Is the depth and scope of my liquidity management framework sufficient for efficient risk monitoring and control?

8. Is the timeframe and implementation pace of my liquidity program adapted to regulatory and business requirements?

Source: Accenture, Liquidity Management Framework - Implementation challenges for banks, 2011
Liquidity management framework

Once these questions have been addressed, a key step for management may be to define the bank’s strategic and opportunistic businesses in regards to liquidity and the organization needed to help support the strategies.

In addition, banks may wish to consider setting up and standardizing liquidity measurements and indicators (global and business specific) as well as implementing a centralized, flexible framework.

This can help financial institutions define or adopt robust information systems for measuring, monitoring, controlling and reporting liquidity risk.

To help properly define and measure its main program objectives, banks may want to consider a robust framework for a liquidity program built upon the following six pillars:

1. **Strategy**: Banks may wish to establish an efficient liquidity risk management framework in relationship to the bank’s strategy. This can help the bank define its strategic and opportunistic business(es) in regards to liquidity. For instance, the liquidity department may wish to work in collaboration with individual businesses to build products that are “liquidity-efficient”.

2. **Governance**: Banks may wish to assess their current situation and develop a broad liquidity program covering short-term (survival horizon, regulatory requirements) and long-term liquidity management goals by implementing a centralized and distributed flexible framework for both entities and groups in order to address regulatory requirements.

3. **Processes**: Banks may wish to set up and standardize a sound process for identifying, measuring, monitoring and controlling liquidity in order to produce efficient internal and regulatory indicators (global and business specific) and develop or enhance cash flow forecasting capabilities (standard, behavioral, stochastic).

4. **Methodology**: It may be advantageous to define and implement a limited and representative number of monitoring indicators:

   - Global indicators (consolidated at group level)
   - Business specific indicators
   - Advanced cash flow forecast (to measure liquidity risk and help take corrective actions)
   - Regulatory ratios

5. **System and Data**: A five step approach could be considered:

   - Define the blueprint target architecture
   - Identify re-usable existing platforms and associated conditions of integration
   - Identify IT solutions to close the gap between current state and target state
   - Build scenarios (mix of build versus buy)
   - Build business case to assess each scenario

6. **Reporting**: Disclose information such as Basel III liquidity ratios (LCR, NSFR, additional monitoring tools) and respond to local regulatory requirements (French ACP, UK FSA framework).

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**Liquidity Management Framework Proposal and Stream Definition**

- **1. Strategy**
  - Risk profile and risk appetite
  - Liquidity buffer level
  - Budget and performance levels by business and entity
  - Funding contingency plan

- **2. Governance**
  - Organization and operating model
  - Funding transfer pricing
  - Model and standards governance
  - Committees and roles

- **3. Processes**
  - Funding
  - Product mix
  - Origination and hedging
  - Collateral/Buffer management
  - Steering/Control
  - Reporting

- **4. Methodology**
  - Liquidity measurement
  - Metrics and ratios
  - Stress testing and scenario
  - Intra-day liquidity

- **5. Systems and Data**
  - Sources
  - Data management
  - Reconciliations
  - Storage/Staging
  - Valuation/Calculation
  - Aggregation
  - Portals

- **6. Reporting**
  - Regulatory reports (incl. Basel III i.e., LCR, NSFR and others) at appropriate consolidation levels
  - Internal reports
In a few words

Liquidity risk and management is both a challenge and an opportunity for financial institutions as they broaden their playing field. Beyond the goal of regulatory compliance, many feel that banks are working to embed liquidity risk and management in their organization and businesses.

This can help them gain the advantage of differentiating themselves from the competition and capitalize on the new tools/indicators developed to address both business and regulatory requirements. By better monitoring the liquidity of their products, counterparties and the market as a whole, banks should be able to effectively focus their attention on the most liquidity-efficient activities and make decisions in accordance with their level of liquidity risk appetite.

The Basel Accords may represent a chance for banks to revisit their risk management framework to deliver effective risk management and strengthen their competitive performance.
Notes
3. “Consultative proposals to strengthen the resilience of the banking sector announced by the Basel Committee”, www.bis.org, December 2009
9. “Consultation paper: On Asset Encumbrance Reporting under article 95a of the draft Capital Requirements Regulation (CRR)”, European Banking Authority, March 2013
10. “Discussion Paper on retail deposits subject to higher outflows for the purposes of liquidity reporting under the draft Capital Requirements Regulation (CRR)”, European Banking Authority, February 2013

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