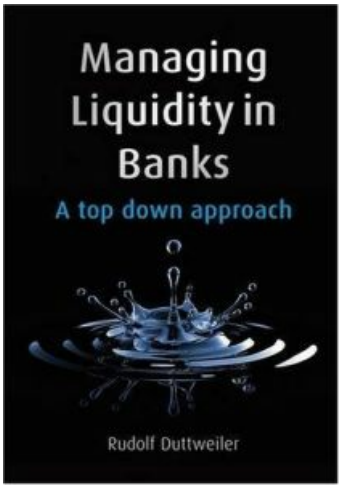

Book Managing Liquidity in Banks

A Top Down Approach

Rudolf Duttweiler
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Recommendation

A bank's liquidity can mean the difference between its life and its death. A sudden drop in access to funding can bring down a financial institution in a matter of days, sometimes even hours – as the 2008 demise of Bear Stearns and Lehman Brothers aptly demonstrated. The bank reforms spawned from the 2008 financial crisis tend to focus on amounts and calculations of bank capital, but liquidity remains the most important indicator of bank stability. Economist Rudolf Duttweiler condenses his decades of experience he spent leading treasury functions at top global banks into this comprehensive reference book for those seeking a serious foundation in the complex field of liquidity management. From time to time, he leavens his technical approach – which can be hard to navigate – with a welcome dose of grounded, real-life counsel. *BooksInShort* considers this specialized guide to bank liquidity management a must-read for financial and treasury professionals at all levels of experience.

Take-Aways

- Basically, liquidity refers to a bank having enough cash to meet "all payment obligations as and when they fall due – to their full extent and in the currency required."
- Banks face a "liquidity gap" when short-term deposits finance long-term loans.
- Liquidity denotes "a qualitative element of the financial strength of a bank" beyond figures, amounts and ratios.
- To stay in business, banks must have undisputed access to liquidity all the time, not just when assets and liabilities mature or during a crisis.
- Growth and profits drive a bank's business, curtailed by safety, viability and liquidity.
- An institution's "liquidity policy" outlines its basic liquidity management procedures.
- Since the late 1980s, at least 14 "liability events" – market crashes, panics and shocks – have strained the liquidity resources of the world's financial institutions.
- Banks can control "asset events" by strategically ensuring their financial health.
- A "shock scenario" like the September 11, 2001, attacks can disrupt liquidity briefly.
- Market uncertainty about a bank's reputation can affect the bank's access to funding for an indefinite period of time.

Summary

Life-Giving Liquidity

The term "liquidity" can have myriad shades of meaning. For banks, liquidity takes on various guises as it relates to different banking activities. At its most basic level, liquidity refers to a bank's "capacity to fulfill all payment obligations as and when they fall due – to their full extent and in the currency required." Liquidity means having enough cash to meet liabilities as they arise. In contrast, failing to have that buffer in place leads to illiquidity.

> "The term 'liquidity' is anything but well defined."

A bank's business drives its liquidity requirements. Financial institutions' policies and activities dictate the types, amounts and maturity dates of its assets. Banks face a "liquidity gap" when short-term deposits finance long-term loans. Though deposits tend to be a reliable source of bank funding, depositors can withdraw their money at any time without prior notice.

Commerzbank "adopted an old Chinese proverb: An intelligent banker accepts that some occurrences can be changed while others cannot; however, it takes a wise banker to know which of them can be changed."

Usually, the amount of deposits on hand isn't enough to support the assets banks generate, so banks borrow money in the market. Lenders' willingness to extend credit to a bank depends on their perceptions of that bank's creditworthiness. Those market perceptions, normally reflected in the interest rates charged, could change in an instant if a bank shows any signs of emerging trouble.

"Liquidity policy is embedded in a general framework of risk policy, which, in turn, is part of business policy."

A bank's liquidity also relates to the "marketability" of its securities holdings. The more easily a bank can sell its assets or borrow against them, the more liquidity it can raise when needed. Banks provide their clients with "optionalities," such as the possibility of drawing money through a committed line of credit at the client's behest. Such unanticipated needs make predicting and preparing liquidity that much more difficult.

"Liquidity represents a qualitative element of the financial strength of a bank."

Solvency and liquidity are not the same. Solvency relates to capital; liquidity relates only to cash. A solvent bank has the equity to absorb its losses, but it can lose its liquidity if it can't convert its capital to cash readily enough to meet its obligations as they mature.

Liquidity Risks

Liquidity risks tend to fall into four categories:

1. **"Call liquidity risk"** – Banking activities unfold on-demand. That can result in unexpected liquidity requirements to cover either sudden withdrawals or unforeseen drawdowns on committed lines of credit.
2. **"Term liquidity risk"** – A bank must anticipate that a client could postpone loan repayments or diverge from its contracted loan repayment agreement.
3. **"Funding liquidity risk"** – A bank that funds long-term assets with short-term liabilities risks incurring higher costs at a later stage when it has to replace those maturing liabilities.
4. **"Market liquidity risk"** – Market changes can affect a bank's ability to convert its assets into cash or to borrow money to fund its assets.

"The banking industry knows all there is to know about liquidity...but [during the subprime crisis] may have forgotten about it or was distracted and no longer remembered that liquidity is the twin of downside risk and equally dangerous if neglected."

Beyond figures, amounts and ratios, liquidity denotes "a qualitative element of the financial strength of a bank." To stay in business, banks must have undisputed access to liquidity all the time, not just when assets and liabilities mature or when a crisis hits. Bank liquidity experts must sequence the known flows of cash in and out of the bank as closely as possible as they try to predict their unknown future needs by making educated guesses about depositor or borrower behavior. They have to adapt their strategies to handle different liquidity scenarios.

Liquidity as Strategy

Financial institutions, just like any other organizations, strive to increase their business and to maximize their profits. Banks must counter these "drivers" with the "brakes" of ensuring the ongoing viability of their franchise as well as meeting the liquidity requirements that growth and profitability demand. Sound liquidity practices must inform any strategic objectives.

"The purpose of any liquidity policy is to help a bank fulfill its payment obligations now and in the future."

A workable "liquidity policy" helps outline basic liquidity management procedures. The necessary components of a good liquidity policy include:

- **"Policy scope and frame"** – Determine where the policy will apply and set its parameters. A bank should design its liquidity policy to secure the institution as a going concern operating at "the lowest possible burden." But just saving the bank from liquidation aims too low. The policy should delineate the specific business activities it covers, along with desired time frames.
- **"Defining terms"** – Make sure the policy's wording and terms are not ambiguous. Spell out a common language that everyone understands.
- **"Authorities and responsibilities"** – Create an organizational chart establishing reporting relationships and responsibilities and tracking each unit's function. The board of directors determines overall liquidity standards and goals. The important "asset/liability committee" (ALCO) should oversee liquidity practices; a bank's different branches and various business units may support their own ALCOs. The bank's treasury is accountable for execution, communication and scenario planning.
- **"Methods and tools"** – Various information systems, calculations and technical instruments help financial institutions manage liquidity. Liquidity professionals have to choose among the distinct time frames they will measure, the currencies they will track and the levels of detail they will manage.
- **"Scenarios and concepts employed"** – Outline various possible liquidity situations, including a "normal case" and a "stressed condition." Test a "'virtual' scenario" that hasn't yet occurred, but might. Regularly assess whether actual events support or undermine your scenarios.
- **"Limits and limit structures"** – Define the restrictions and limits on liquidity amounts, currencies and locations. This establishes the boundaries for managing the bank's liquidity. From an internal perspective, different levels of the bank operate under their own limits. These levels range from business units to the board of directors, which is responsible for overall liquidity limits. Banking regulators will ask how the different limit structures comply with supervisory requirements.
- **"Reports and reporting frequency"** – Data flow and communication should move up the bank's hierarchy. Those people who monitor the lowest levels report up to the next level, continuing all the way up to senior management. The liquidity measures the bank tracks will determine the frequency of reporting, from intraday accounts to daily or weekly reports.
- **"Contingency planning"** – Contingency planning builds on all other aspects of liquidity policy. If one part of the policy is missing or underdeveloped, a bank's chances of surviving a liquidity crisis unscathed shrink dramatically. A good contingency plan replicates all the facets of a liquidity policy, explicitly defining limits, responsibilities and activities. The plan should also describe as many early indicators of potential trouble as possible, along with prescribing remedial actions. For

example, a bank that experiences an acute rise in deposit withdrawals or is the subject of market rumors needs a battle plan it can put into action quickly to head off rapidly escalating problems.

Liquidity in Practice

Since the late 1980s, at least 14 events have strained the liquidity resources of the world's financial institutions, including 1987's US market crash; the 1990s' Mexican, Asian and Russian financial crises; the September 11, 2001, terrorist attacks; and the subprime mortgage collapse beginning in 2007. Bank liquidity policies should differentiate between "asset and liability events." Exogenous market happenings can affect a bank's liabilities or its ability to fund itself. To protect a bank from unexpected incidents that leave it with little control, make sure its financial well-being is secure enough to withstand market disruptions. Match long-term assets with stable long-term funding resources, diversify funding and encourage the growth of reliable retail deposits.

> "Liquidity policy and management do not exist in a vacuum."

Managers should proactively take steps to ensure liquidity, such as distinguishing between "franchise and nonfranchise" assets. In extreme stress, a bank could liquidate nonessential assets. Bankers should define balance sheet limits for asset growth for each business unit, curtail optional add-ons that put pressure on liquidity and set aside a "reserve portfolio" for daily payments.

Liquidity in Crisis: The 9/11 "Shock Scenario"

Extensive planning, scenario building and testing can't prepare you for the real-life challenges of an actual liquidity crisis. Shock scenarios can come from exogenous sources and can result in short-term but significant hits to liquidity. The treasury function at Germany's Commerzbank on September 11, 2001, provides a useful case for understanding effective liquidity management during times of stress.

> "There are external forces at work. Market conditions can change. Assets previously qualifying as marketable and thus as liquid may suddenly be difficult to turn into cash."

Commerzbank's New York branch is the center of its US dollar business. On the morning of the terrorist attacks, it abandoned its lower Manhattan offices for its emergency operating site 50 miles away. As part of its liquidity planning, Commerzbank already had collateral on reserve with the New York Federal Reserve Bank to fund its dollar book of transactions if liquidity were to dry up. As New York staffers traveled to their temporary worksite, their German counterparts activated their European contingency plan. They alerted the members of its ALCO and kept them informed. The ALCO kept the CEO and the board of directors apprised of unfolding events. Assessing the likelihood that daily payments flows would be disrupted, the bank's German treasury took on the responsibility of making all global payments until the New York contingency site was operating.

> "Liquidity is only one of the risks any company faces. It has to be kept within a sound balance of general risk management."

By the next morning, it became clear that damaged infrastructure would result in a several-billion-dollar temporary shortfall in payments owed to Commerzbank. The bank's head office, working with the US Federal Reserve, the Bundesbank and other financial institutions, borrowed dollars on behalf of its New York operation. The bank determined that market confidence in the institutions and in the system meant that the shock would not last very long; Commerzbank was able to lift its emergency status one week after the attacks.

"Name-Related Stress"

Shock scenarios tend to be short and sharp. When a bank experiences problems – whether real or rumored – the repercussions can include a liquidity squeeze of indeterminate length and intensity. Deteriorating economic conditions in 2002 in the wake of the dot-com collapse put German banks under the microscope, with Commerzbank coming under especially intense scrutiny. As market analysts and media commentators debated whether the bank was experiencing credit and liquidity problems, senior management could do little to counter the uncertainty. Rumors of trading losses – as well as objective assessments that cast the bank as less resilient than its German peers – roiled its share price and raised its cost of funding in the market.

> "For bank management entrusted with securing and furthering the commitment to shareholders and stakeholders, staying liquid cannot be regarded as an isolated goal."

The bank's treasury staff members went on alert. They assessed possible scenarios, revisited their assessments of franchise and nonfranchise assets, and made various executives responsible for communicating with important corporate clients. They also set aside buffers totaling €30 billion. On October 5, 2002, their incoming cash flows slowed. The bank implemented its contingency plan: It communicated to its central bank, regulators, market lenders and clients that it had the resources to maintain liquidity. It activated its plan to divest noncore assets, and it set "confidence building" behavior guidelines for its traders, telling them to interact with market participants as they always had, and, if queried, to "tell the truth: We have no liquidity shortage." Tensions eased after about a week; Commerzbank survived its liquidity crisis.

> "Markets tend to act on the following basis: Prepare for the worst but hope for the best."

Bank executives should know that they cannot delegate the responsibility of liquidity risk management; they must consider the "multidimensional nature" of liquidity as an important and integral part of their strategic business management.

About the Author

Economist **Rudolf Duttweiler** is a professor of bank treasury management at the University of St. Gallen in Switzerland. He led treasury functions at Commerzbank and other European institutions.