

Foreword

“Have I not walked without an upward look
Of caution under stars that very well
Might not have missed me when they shot and fell?
It was a risk I had to take — and took.”

Robert Frost, *Bravado*, 1947

ABOUT THIS MANUAL

Liquidity Risk Management has two objectives. One of the major themes is that we cannot understand anything useful about liquidity risk unless we consider the applicable environment. We will define and discuss very distinct liquidity needs. We will examine how various liquidity sources are available to differing degrees — or not at all — in different need environments. Then, we will focus on how that understanding can be applied to measuring and managing liquidity.

Another goal of this work is to attempt to meld some of the practical “realities on the ground” — the composition of bank balance sheets and the restrictions imposed by business conditions — with some of the ideas, concepts, and theories of liquidity risk management. These two sets of ideas cannot be considered independently. Too many liquidity risk measurement tools are impractical. Too many liquidity theories are too general to be useful, or they are simply irrelevant. On the other hand, bankers are so focused on practical issues that they often neglect fundamental concepts or the lessons learned by previous generations. This book attempts to bake a cake using knowledge of theoretical recipes, a whole lot of practical methods, and some historical spices.

The content also reflects the often different resources and needs of small, medium, and money center bankers. Issues relevant to the largest banks are often more publicized and analyzed. As a result, large banks are featured in many of the examples used throughout the book. At the same time, however, the interests and needs of community bank managers are also reflected. When analysis or recommendations might be different for

large or small banks, separate comments are focused on only the large banks or only the community banks.

Historical precedents and fundamental concepts are emphasized only when they illustrate key points or provide essential background. The bank manager's need for workable suggestions and practical ideas is an overriding goal of this work.

PREFACE

The field of liquidity risk management is undergoing change. Big banks have gotten much bigger and, in some cases, more international. Community banks now have access to liquidity management tools that were once restricted to large banks, especially the ability to rely on borrowed funds of various maturities. The asset sides of bank balance sheets are becoming more liquid while the liability sides are becoming more dependent on funds obtained in wholesale markets. We have witnessed a growing consensus among bankers and regulators for risk measurement methods. Liquidity ratios using historical data are now relegated to marginal roles. Liquidity measurement is now based on scenario-based cash flow projections.

In May of 2008, Fed Chairman Ben Bernanke spoke extensively about the role of liquidity in banking. He noted that, "mortgage lenders, commercial and investment banks, and structured investment vehicles have experienced great difficulty in rolling over commercial paper backed by subprime and other mortgages." He went on to say that there are some promising signs, "but, at this stage, conditions in financial markets are still far from normal."

The subprime crisis of the summer of 2007 quickly morphed into a near-meltdown of key markets for bank borrowings and bank asset sales. The good news is that the vast majority of community banks were not impacted, but the bad news is that the final result of this crisis has not been played out completely yet.

Three changes are coming at community banks.

First, as the crisis spreads from subprime mortgages to all residential mortgages, to HELOCs, to credit cards and beyond, bank loan defaults are rising. Furniture and appliance sellers are suffering. Firms that are heavy energy users are facing steeply higher prices. Your bank may be a better than average lender, but some banks will clearly be hit hard. Regardless of how clean you think your loan portfolios are, now is the time to ensure that you are well prepared with strong liquidity risk measurement and management.

Second, even if you only rarely sell loans or sell debt, new funds available from those sources will be more expensive and harder to get. This also applies to FHLB borrowings since, in some districts, the banks have raised requirements for collateral margins.

Last but not least, the regulators are paying much more attention to liquidity risk in the wake of crisis in the capital markets. Some banks have been told in advance of their exams to expect closer scrutiny. Large national banks have been given a monthly report form for stock and flow measures of liquidity. It is in times like these that *Liquidity Risk Management* is a must-have for your office bookshelf.

ORGANIZATION OF THE CONTENTS

Our consideration of bank liquidity is presented in seven sections:

1. In Chapter 1, we consider some of the underlying questions, themes, and issues that are common to all views of bank liquidity. In that chapter, we define liquidity and consider the nature of liquidity risk.
2. Chapters 2 through 4 present and analyze current liquidity concepts and tools. Chapters 2 and 3 provide a contrast between liquidity theories and practical realities. Theories are discussed first in Chapter 2. Actual balance sheet, business, and market conditions are described in detail in Chapter 3. Skeptics on both sides will see that both theory and reality are relevant to a workable understanding of liquidity risk management. We consider traditional tools for measuring liquidity risk in Chapter 4.

3. Then, in Chapter 5, we discuss why the traditional measurement tools are so often imprecise. Chapter 5 brings current developments, historical approaches, and a variety of ideas together. With the discussion of the three dimensions of liquidity, this chapter is the thematic heart of the book.
4. The practical heart follows in Chapters 6 through 9, which detail workable procedures for bankers to manage liquidity. Chapter 6 addresses better liquidity measurement. Chapter 7 addresses liquidity management and ways to enhance liquidity. Chapter 8 tackles the thorny issues of liquidity costs and pricing. Contingency planning and crisis management are addressed in Chapter 9.
5. Chapters 10 through 12 examine major issues associated with liquidity management. Chapter 10 addresses stress testing and Chapter 10A discusses liquidity contingency planning. Chapter 11 discusses liquidity policies, a topic close to the heart of many bank examiners. Chapter 12 wraps up the discussion with an examination of institutional perspectives and includes key relationships between liquidity, risk management, interest rate risk management, credit risk management, earnings, and capital.
6. Following the content discussions in the 12 chapters, a Study Guide is available for readers interested in reviewing or testing the knowledge gained. For each chapter, the study guide provides a brief summary of the key points, a short test, and a list of sources for additional reading.
7. Last, you will find a resource section containing appendixes with funding crises data, a detailed glossary of terms, and a bibliography.

ACKNOWLEDGEMENTS

Preparation of this book has involved reading numerous books and articles and having valuable discussions with other bankers. Ideas from many of those sources have contributed to this book in ways not always direct enough to be singled out by specific footnotes. In other cases,

ideas from conversations and seminar presentations may have become too commingled or blurred to permit appropriate recognition of their creators. Any omitted acknowledgements are unintended.

Credit for many of the examples, anecdotes, and insights that liven the otherwise dry discussion of liquidity topics must be given to the invaluable assistance provided by many volunteers. Each and every one has my sincere and deep gratitude.

- First and foremost, I want to gratefully acknowledge all of the current and past members of NALMA (formerly the National Asset and Liability Management Association, now the North American Asset and Liability Management Association). Over more than a decade, I have benefited from their knowledge and understanding, from their willingness to divulge war stories, and especially from their generous sharing of best practices. NALMA members past and present have helped me with materials, with information shared at conferences, in conversations and telephone calls, and by e-mail. Walter Bauer, Tom Bermingham, Robert Crowl, Kim Hobbs, Angela Isaac, Brian Ranson, Bill Schomburg, Carl Tannenbaum, and Joe Vayda are just of the few of the NALMA members who let me pick their brains. This book has benefited enormously from their wisdom and their generosity.
- I also want to particularly thank all of the people who let me interview them in the course of preparing for this book. Special thanks (in chronological order) to Bruce Jurin, Angela Isaac, Bill Schomburg, Anthony Glickman, Robert Phillips, Tom Bermingham, Philip Wilson, Brian Ranson, Joe Vayda, Jim Tuttle, John Mason, and Jon Shulman. Four other individuals, whose names I can't mention without giving away hints on the sources of some stories best kept anonymous, also have my sincere thanks.
- Several people helped me locate and obtain source materials. Thanks to Peter Goshawk, Shane Ravenhill, Walter Bauer, and Bill Schomburg.
- My research assistants, Emily and Sarah, worked long hours searching databases, prowling libraries, preparing exhibits, and

checking sources for me. In addition, my Sheshunoff editors have devoted many hours of meticulous work. This book would be far poorer were it not for their care.

- Lastly, I want to acknowledge my debt to proofreaders. They helped me find and correct errors of omission in addition to the inevitable errors of commission. Special thanks to Tom Bermingham, Rob Crawl, Al Frankel, Brian Ranson, and Bill Schomburg for their feedback.

It is a cliché to say that any errors are solely my responsibility and not the responsibility of any of the sources, helpers, or editors. It also happens to be true.