Managing Liquidity in Banks

A Top Down Approach

Rudolf Duttweiler
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Rudolf Duttweiler

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To My Children

Jan and Alexandra
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Foreword

Exact timing is essential for a good treasurer – and this book arrives right on time! In his book, Rudolf Duttweiler presents the sum of 24 years of professional experience, gathered in positions of responsibility at several banks, 14 years of which include working for Commerzbank. He is definitely no theoretical analyst, but a practitioner with high standards for logical and structured thinking.

This book appears at a time of probably the most severe financial crisis since the Great Depression of 1929. One of the many lessons learnt from the ‘subprime’ crisis is without doubt that liquidity risks were underestimated across the board. Possibly the intensive debate over the last few years on default risks, solvency and Basel II has distracted too much attention from these kinds of risks. With hindsight they should have been considered as a grave threat to the financial sector, and it is clear that liquidity is crucial: for individual market participants, for the markets and for the whole financial system.

Another thing to note is that products, markets and financial institutions are more closely connected by the new financial innovations that have been created. At the same time, the worldwide ramifications of such developments are not sufficiently transparent to both market participants and supervisory authorities. The reasons are, amongst other things, international differences or ‘loopholes’ in regulatory frameworks, as well as differing transparency standards – consider, for example, conduits and similar arrangements.

In a nutshell, liquidity management has become more important than ever for banks.

There are two conclusions in this book which I think are especially important. One conclusion is that securing and managing bank liquidity is not merely a supporting, back office task which can be easily delegated. Since there is a strategic dimension, it needs to be done at top management level. It is only at such a level that decisions can be made on exactly what measures need to be taken, to what extent and at what costs, in order to deal with any kind of situation threatening the liquidity of a bank.

The other conclusion, masterfully illustrated here, is not just to fulfil all liabilities completely. This would also be possible to do at the price of breaking up a bank, albeit not punctually. No, it is primarily about preserving a bank, its reputation and thus its ongoing client and investor connections. Otherwise, its business network would be lost, a network built on hard-won trust, sometimes over centuries.

Another great achievement of the author is the provision of clear definitions and practical explanations, including the big picture.
Foreword

Over the years, I have come to know and hold Ruedi Duttweiler in high esteem both personally and as a professional. I am deeply grateful to him – not only personally, but also on behalf of the shareholders, clients and colleagues of Commerzbank.

Ruedi Duttweiler has in particular been responsible for skilfully securing the liquidity, and thus helping to preserve the continued existence, of Commerzbank. For the first time, the related stress situations are revealed in detail for a professional audience in Chapter 7. Special attention is devoted to the intentional, yet completely unfounded rumours of liquidity shortages in 2002 which put the bank in a precarious position. The author was able to calm markets then, thanks to a conservative, high-liquidity strategy that he and his colleagues in the treasury department pursued. With his long professional experience and the steady hand of a ‘veteran’ (he is, by the way, a reserve officer in the Swiss Army), he exuded the necessary credibility amongst his peers worldwide. Consequently, he was able to convey the message that there was no reason to believe these rumours. The public support of the German banking supervisory authorities at that time can without doubt be attributed to a significant extent to his calm strategy and the good liquidity management he employed at Commerzbank.

To summarise: this book and its conclusions merit a large number of readers, thoughtful reading, and consideration as a textbook for daily treasury practice. Once this happens, the author will have provided an invaluable service to the whole financial community.

Klaus-Peter Müller
Chairman of the Supervisory Board, Commerzbank AG
President of the Association of German Banks
Preface

Liquidity risk and its management have become public focal points in the course of the US subprime mortgage crisis, when state intervention was necessary on a large and unprecedented scale to avoid the collapse of the financial system. The response is understandable given the severe implications when lacking control over it. And control over it seemingly has been lacking in many cases, as illustrated by well-known names in many countries: Bear-Stearns, Fannie Mae, Freddie Mac, Lehman Brothers, Fortis, Kaupthing, Northern Rock, Royal Bank of Scotland, UBS, Hypo Real Estate or IKB, to mention but a few. Yet it is surprising how little seems to have been known or applied in the banking industry when it comes to dealing with liquidity risk. We do not necessarily refer to the handling of the crisis, but mainly to the apparent shortcomings in the preparation to keep this type of risk within manageable levels. After all, next to downside risk, it is the most important risk elements immediately endangering solvency.

Why then has the banking industry been affected so strongly – in fact, more severely than in any liquidity crisis in the last 50 years or so when considered on a global basis? It is obviously neither the lack of general knowledge about the subject nor any disregard on a large scale which caused it. Based on rules and regulations agreed by the members of the Bank for International Settlements (BIS), national supervisors have put such principles into national legislation, not in a uniform manner but with their essence preserved and adjusted for local conditions. At the turn of the millennium in 2000 the Basel Committee on Banking Supervision set out principles in respect of ‘Sound Practices for Managing Liquidity in Banking Operations’. More detailed recommendations have been delivered since. The banking industry thus had time to familiarise itself with the subject and to put legislation into concrete action.

My personal assessment relates much of the impact to having failed to read the equivalent of the ‘small print’ in a contract. Liquidity is an extremely complex subject and liquidity risk has many dimensions. Board decisions on business policies such as dynamic internal growth or a substantial acquisition can drastically alter the liquidity structure of a bank. Substantial losses will impinge on capital ratios and hence on the financial health of a bank, which in turn may affect the attitude of lenders and thus funding capacity. Or the funding markets may have turned less liquid, thus reducing or eliminating the level of borrowing at normal spreads and volumes, and the effects may have occurred despite an unaltered structure in liquidity or financial health of an institute. Any cautious bank management will have provided for such events by establishing liquidity buffers in the form of tradable assets. However, how liquid are liquid assets when they actually have to perform their duty? The answers to each question...
have found their way into modern liquidity management and the quantitative part into the respective measurements.

For bank management entrusted with securing and furthering the commitment to shareholders and stakeholders, staying liquid cannot be regarded as an isolated goal. It has to be brought into a balanced equation of further business and financial aims, as there are additional elements endangering solvency. Considering the latter point, the expectations of bank management exceed the primary goal of liquidity management, which is: to ensure that all payment obligations are fulfilled as and when they fall due. Taking the latter goal in extremis, it includes fulfilling all obligations till the last transaction is off the books leaving a skeleton of a bank with no customers left. Surviving a crisis thus means keeping the core of the business and customers, i.e. the franchise, intact. Defining it and determining the degree and duration of protection are the prerogatives of bank management.

Considering the high-level implications of liquidity as well as the management’s respective responsibilities, it is advisable not to begin with technicalities, however. What is required is the application of a top-down approach. Derived from set business and financial goals, we are going to formulate a policy framework for liquidity based on which specific aspects of liquidity management and measurement are evaluated. Taking this route will permit us to embed the subject within the overall frame of decision making applicable to bank management. The approach is based on practical experience put into concepts, with the understanding that, without working in conceptual frames, the ‘small-print’ syndrome cannot be avoided.

We start in Chapter 1 by defining liquidity, its risk and its relation to solvency. This serves as an introduction to the basics and lists at the end elementary but vital principles to be applied to any liquidity scheme with a chance of success. Since policy aspects of liquidity related to banking have been rather neglected until recently, Chapter 2 evaluates traditional concepts including schemes applied in corporate finance. In view of the difference in complexity between ‘corporates’ (i.e. non-financial firms) and banks, the key financial determinants for banks are evaluated by using a technique developed to deal with complex structures.

The key determinants are then integrated into a conceptual framework in Chapter 3. The two dominant financial risk factors in banking – loss and liquidity – are analysed and the possibility of applying to liquidity the widely accepted methods for calculating downside risk is evaluated. The chapter concludes with a conceptual framework integrating all relevant points concerning liquidity policy in banking. We then formulate the elements of the latter in Chapter 4, including contingency planning and securing the franchise of a bank. Given the significant diversity in size, structure, complexity and environment within the banking industry, we abstain from uniform recommendations. Instead, whenever possible, alternatives are presented, their pros and cons discussed and personal preferences stated if applicable.

The following two chapters address the aspects of liquidity management derived from the conclusions drawn when discussing policy elements. The subject is divided into a more qualitative and a rather quantitative part. Chapter 5 covers the former. For the purpose of presenting the key elements within the liquidity status in an aggregated high-level form, the instrument of the liquidity balance sheet is introduced. Franchise, security buffers, assets at risk, stable and non-stable funding are all defined and their interaction and relevance to liquidity management discussed, followed by specific recommendations with regard to policy as a form of feedback. Chapter 6 brings in the quantitative aspects. New mathematical methods proposed for managing liquidity risk are presented and their value assessed. For determining the size and structure of buffers, our own approach is introduced and put forward. The chapter ends with limit-related aspects and two concepts referring to transfer pricing.
In Chapter 7, dealing with stresses is analysed from the point of view of an insider. Although having inevitably encountered quite a few stressed conditions as treasurer, the author has selected both a shock (9/11) and a chronic type (name-related stress in late 2002). Preparations to withstand such occurrences as well as actually dealing with them are outlined in a real-life manner in the case of Commerzbank. Furthermore, a preliminary assessment of the subprime crisis is added. The chapter concludes with generally valid recommendations derived from the experiences.

The final chapter takes a broader view and extends this to supervisors and their role with regard to controlling liquidity risk. The issues covered address their perception vis-à-vis banks and the stability of the financial system as well as the concepts applied. This is followed by an assessment of whether and to what extent supervision is or is supposed to secure goals defined by bank management.

Rudolf Duttweiler