The crash of 2008 demonstrated the importance of the upkeep of a robust and sustainable funding structure by all banks. The lesson was learned, and once again, that funding strategy and maintenance of liquidity are indispensable to sustainable banking. Furthermore, the crash re-affirmed the need for principles of liquidity risk management to be given equal status with profit and revenue objectives as key elements of a bank’s liability strategy.

In this article, we review these liquidity risk principles and describe how they fit into a bank’s customer deposit strategy, including its pricing strategy. Although no bank operates in a vacuum and deposit pricing must always reflect the overall market and competitor position, we state why liquidity preservation principles cannot be relegated to second position behind the profit objective. We also consider the regulatory requirements for liquidity as required under Basel III, and how these must influence overall liability strategy and structure.

Background

One of the effects of the crash was to enshrine in regulatory law what had formerly been observed as simply good banking liquidity practice. The new global standard is typified by the Liquidity Coverage Ratio (LCR), part of the Basel III framework, which is a hard limit that all banks have to adhere to. The metric is defined as:

\[
\text{Stock of high-quality liquid assets} > 100\% \times 30\text{-day stressed net cash outflows}
\]

The Basel committee prescribes outflow assumptions for the various different types of liability on a bank’s balance sheet, which form the basis of the “outflows” denominator. Stable retail customer deposits, such as current account balances have the lowest outflow assumptions, whereas short-dated wholesale market funds have the highest outflow assumptions. Customer deposits benefit from being assigned “behavioural” tenor characteristics, which reflect the reality that such funds are actually longer in tenor than their contractual maturity. A bank rich in such deposits can generate a smaller funding “gap”, at lower cost, than a bank trying to meet LCR requirements via long-term wholesale liabilities. Figure 1 shows the difference in gap profile at a UK commercial bank when plotting contractual gap profile against behavioural gap profile for customer loans and deposits. The difference is marked.

The LCR demands that a bank must hold a stock of “liquid” assets to cover any expected liabilities outflow during stressed market conditions. What constitutes “liquid” is debatable, with certain equities, corporate bonds and even residential mortgage backed securities being eligible to form part of the liquidity buffer. However, more prudent banks will restrict their liquid asset buffer (LAB) to cash at the central bank and AAA-rated T-bills and sovereign bonds.
For commercial bankers, the impact of the LCR requirement is to incentivise a lower reliance on wholesale funding and a greater share of stable customer deposits as a percentage of total balance sheet funding. All else being equal, this drives a smaller LAB size requirement, which assists the P&L, given that the LAB is usually a loss-making portfolio (a bank’s funding costs are invariably higher than the return on LAB assets).

Individual national jurisdictions have their own requirements, which are in line with Basel III or may be more onerous. For example the UK Prudential Regulatory Authority (PRA) applies a 90-day survival horizon when applying its liquidity requirements to UK banks.

**Liquidity Risk Principles and Liability Strategy**

In the conventional bank business model, the desire to maximise return and P&L is as much a driver of liabilities strategy as it is of asset origination strategy. A commercial bank will generally look to pay the lowest possible rate on its deposits, particularly funds such as current accounts and instant access deposit accounts which often pay zero or very low interest (hence characterised as non-interest bearing liabilities or NIBLs. The availability of NIBLs is a significant element of the shareholder value proposition in a bank.)

Post-crash and the requirements of LCR mean that principles of liquidity risk must also carry equal weight in developing liability strategy. In the UK the PRA assigns customer deposits as either “Type A” or “Type B”, as part of the Individual Liquidity Adequacy Assessment (ILAA) process at each UK-regulated bank. Type A deposits are deemed less “sticky” than Type B deposits in times of market stress, and therefore carry a higher outflow assumption.

For example, the PRA view is that 100% of the contractually maturing deposits from Type A customers would be expected to leave during the first 2 weeks of a stress event. This reduces to 2% for certain Type B deposits and therefore a Type A/B mix weighted to Type B customers is beneficial for LAB requirement purposes.

A summary of Type A and B funding is given in Figure 2.

Deposits that are contractually longer than 90-day maturity - for example a fixed term unbreakable 1-year deposit or a 95-day Notice Account - are deemed not to outflow in a crisis.

**Figure 2: Definition of Type A and B customer deposits**

<table>
<thead>
<tr>
<th>TYPE A</th>
<th>TYPE B</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Deposits from Financial Institutions and Government agencies/public sector</td>
<td>• Deposits from SME customers</td>
</tr>
<tr>
<td>• Deposits from customers with short relationships with the Bank</td>
<td>• Deposits from customers with a long relationship with the Bank or holding more than 3 products with the Bank</td>
</tr>
<tr>
<td>• Money market funds</td>
<td>• Deposits held on Money Transmission Accounts, eg current accounts</td>
</tr>
</tbody>
</table>

All else being equal, therefore, Type B deposits are more attractive for LAB optimisation purposes, as are all notice or unbreakable fixed-term deposits. These, of course, are more expensive for banks than NIBLs or certain Type A deposits, so from a P&L perspective would be less likely to be emphasised in a bank’s liability strategy. But the dictates of sound liquidity risk principles, and the need for an external perception of a robust and stable funding structure at a bank, should mean that a bank will aggressively target a higher share of its funding as Type B funding and/or contractually > 90-day funding.

**A Risk and P&L Trade Off?**

It is frequently suggested that the need to preserve liquidity strength implies a trade-off with P&L generation in the type of funding raised. While this is true to a certain extent (for example, a 95-day Notice Account or a 2-year Fixed Rate Deposit will cost the bank more than a vanilla current account or corporate customer deposit account), it is not an accurate assessment when considering the cost of wholesale market funding. Capital markets issuance will be more expensive than customer deposits. This can be material; during Q2 2013 an A-rated bank in Europe might expect to pay 140-160 bps over Libor for 3-year bond issuance and up to 220 bps for 5-year issuance. This is contractually explicit term funding, so of value towards the LCR and long-term Net Stable Funding Ratio (NSFR) metrics of Basel III, but it is not uncommon for many Type B deposits such as retail current accounts and savings accounts to be treated behaviourally as 3-year or even 5-year funding. Such funds would not have cost a bank more than 100 bps during the same period, so a liability strategy that emphasises a customer funding surplus can meet both liquidity risk and P&L requirements.

In practice this will translate into a customer loan-deposit ratio (LDR) of between 80% and 90%. Any higher than this and the mechanics of the LCR calculation will mean that the bank will be running an aggregate funding gap, which can only be plugged with wholesale funds. Maintaining sufficient customer deposits will ensure:

- Reduction in the wholesale markets funding requirement, thereby lowering the bank’s cost-of-funds (COF) and weighted-average COF (WACF);
- A beneficial impact on liquidity metrics (PRA, Basel III and ILAA);
- Positive impact on the bank’s credit rating;
- A rise, or at least preservation, of the bank’s net interest margin (NIM).

Given the importance of sound liquidity risk management principles to ensure minimum target credit rating and Basel III LCR compliance, a bank’s articulated “Deposits Strategy” drivers must reflect parallel needs of Liquidity Risk objectives as well as P&L and income improvement, with explicit liquidity limit metrics including LDR, cash flow survival horizon minimum, and so on.
Drafting Liabilities Strategy

Ownership of a bank’s funding strategy will lie with the business lines, but the document itself will require approval at ALCO and hence will need extensive Treasury input. In effect, liabilities strategy is a co-authored effort, with parallel tracks related to liquidity risk and NIM enhancement.

The Treasury elements would be expected to include discussion on the following:

- Decisions to re-price customer deposit rates downwards (“de-tuning”) should be accompanied by analysis on expected impact on retention levels and volume impact to ensure compliance with liquidity limits, as well as an analysis of what peer-group competitors are offering at present;
- Liquidity and funding policy requirements, approved by ALCO, are articulated at bank level but the individual business lines (Retail and Corporate) would be expected to adhere to them as standalone businesses, to ensure risk exposure is maintained within manageable proportions. For example, business lines would be expected to be self-funded, or otherwise present clear and realistic plans on how funding gaps are being met, with confirmation that these are within the business model;
- Strategy targeting lower deposit pricing would be expected to also include a clear outline and approach on how the bank will replace expected deposit attrition, or otherwise cover off liquidity risk policy requirements with respect to how funding limits, funding concentration and funding diversity will be addressed;
- Asset origination strategy that targets continued growth in balance sheet assets, to meet P&L targets, must also address how any resultant funding gap will be dealt with. For example, detail on the P&L impact of saving on deposit costs versus cost of raising new funds in the wholesale market;
- For ILAA and LCR compliance purposes, the liabilities strategy is expected to target the desired Deposits Type A/B split explicitly and how this will be achieved. An A/B split of around 30:70 is considered optimum for most bank business models, but of course depends on franchise requirements – banks servicing a Type A customer base will expect to have a larger share of such deposits;
- A bank-wide Products Pricing Committee should be set up to meet regularly outside of ALCO, with representation including Treasury and Finance. This committee would review deposits pricing.

In general, a deposit strategy is constructed to meet the dual objectives of a stable funding structure, meeting all regulatory requirements, and a P&L-driven desire to preserve and enhance NII/NIM. This requires the following content:

- Agree the broad shape of actions to drive deposit raising; items such as retail versus corporate customer mix and principles of fund raising approach. This then feeds into specific plans in detail for pricing approval;
- Determining the size of customer funding gap where deposit raising action is required, and phasing of deposit raising, to meet regulatory and P&L objectives as well as the loan-deposit ratio (LDR) target and other liquidity metrics targets.

The content of the strategy is reviewed and updated on a regular basis and would include:

- Performance year-to-date and summary of pricing decisions taken;
- Future deposit target and waterfall of risks and upsides, with deposit raising/reducing challenge agreed;
- Principles of deposit generation; that is, how the bank will evaluate priority activities; for example cost of funds, ease of fund raising, customer clarity, relationship deepening (no reliance on financial institutions deposits, higher share of sticky deposits, Type A:B ratio target desired, and so on);
- Retail and Corporate potential deposit raising opportunities, evaluated by principles above, with Treasury recommended approach and phasing.

We drill down into deposits strategy itself in the next section.

Deposit Strategy Templates

The content of a bank’s deposits strategy will reflect its overall liabilities objective. This cannot be understood without a deep understanding of the institution’s current balance sheet structure, and value-for-money of each type of liability. This “value” extends not just to P&L and NIM impact but also the value from a regulatory perspective (bearing in mind that the most valuable deposits from an LCR viewpoint can also be the most beneficial to NIM: for example, retail current account balances).

Deposits strategy should reflect the objectives for the overall balance sheet structure of the bank. In general a bank will draft a detailed template addressing:

- maintaining current customer funding types and levels;
- increasing levels, or concentrating on different types of customer and product; or,
- where there is excess surplus liabilities, reducing current levels.

We introduce templates for retail and corporate banking businesses.

Retail Deposits Strategy: Agenda Points

A Retail bank template may be set out as shown in Figure 3. This is a summary of the content and includes essential management information (MI). In this case we observe a declining market share in a growing deposit market, an issue that would be addressed in the regular updates on strategy progress.
2014 Retail Bank Customer Liabilities Strategy

1. Retain and grow deposit balances by £2bln over next 12 months
2. Maintain the main bank relationship
3. Focus, retain and grow the strategy on “sticky” deposits (PRA-designated “Type B” balances)
4. Acquire additional balances through improved understanding of customer requirements
5. Stimulate demand through incremental pricing changes, and not by “chasing money”
6. Maintain an holistic view of the aggregate balance sheet: monitor liabilities surplus and funding of illiquid assets

Any strategy plan must be dynamic and respond as necessary to changes in market and performance below plan. This demands timely and accurate MI. A template of contents for the monthly MI would look similar to Figure 4.

Corporate Deposits Strategy: Agenda Points

Corporate banking strategy will follow similar lines. For example, a different flavour to what was illustrated in Figure 5 is the template below, drafted for a bank that is seeking to implement a deposits growth strategy:

- Primary theme: focus on a holistic view of the customer’s needs, focusing on valued relationships and not only interest rate paid;
- Secondary theme: Managing for value
  - Focus on retaining existing deposit balances and increasing the value of those deposits
  - Expect to maintain current balance sheet (as at Dec 2012 £1bln ) with forecast of £1.5 bln for year-end
  - Focus on being ’Competitive but Practical’
  - Look to strategic replacement of deposit balances to maintain balance sheet
- Strategy components:
  - Repricing of interest-bearing balances to increase levels - beginning Q2 2013 - expected impact of £100mln on NII
  - Concentration on 95-day notice accounts, which are Basel III LCR friendly but cheaper than fixed-rate fixed-term deposits
  - Regular review of negotiated rates (at least every six months) with a wholesale review being undertaken in Q1 2013
- Competitor pricing analysis: regular review of the deposit marketplace, with an objective to maintain the bank in the middle of the pricing matrix and not as an outlier, as shown in Figure 6.
The drill down from the above strategy template would be an action plan that develops, identifies and quantifies specific actions to be taken each quarter to optimise deposit product, from both a regulatory and NIM/NII requirement angle. The document is then presented to the bank ALCO for approval.

Conclusions

Good banking practice dictates that sound liquidity principles take equal precedence with returns and P&L targets when setting liquidity and funding strategy. This dictum should carry through into a bank’s customer deposit strategy. We have seen how the conservative liquidity regime that is Basel III now enforces by regulatory fiat what was previously only followed at banks that adopted a sound liquidity regime. This necessarily creates a meet regulatory requirements. This is worth bearing in mind for strategy because raising “sticky” customer deposits is cheaper than raising wholesale funds. So for certain banks the trade-off may not be so onerous a problem. Ultimately, liabilities strategy must be appropriate to the overall strategy and business model of the bank in question.

See below for Part 2 Addendum: Calculating the Term Liquidity Premium.

About the Author

Professor Moorad Choudhry is at the Department of Mathematical Sciences, Brunel University. He is author of The Principles of Banking (John Wiley & Sons Ltd 2012).

Part 2 Addendum: Calculating the Term Liquidity Premium

In Part 2 of this series we examined the logic and rationale of the bank internal funds pricing mechanism, known as funds transfer pricing (FTP). A key element of the FTP regime is the specific term liquidity premium (TLP) that a bank’s Treasury desk incorporates into the FTP whenever it prices funds, either lent or borrowed, for the internal business lines.

The true or “fair value” TLP is difficult, if not impossible, to observe. Banks’ cost of funds (COF), whether raised in the customer or the wholesale markets, incorporate both the bank’s perceived credit risk as well as an element of term premium so the task here is to extract the term liquidity element from the overall cost. As there is no direct observable TLP we have to use proxies. In Part 2, in June 2013 iRisk, we detailed the types of proxies that one can consider, here we use these proxies to determine an estimate for a bank’s 5-year TLP.

Consider the following market rates for euros (EUR), observed for an A+ rated European bank in January 2013:
Part 2 Addendum: Calculating the Term Liquidity Premium continued

5-year rates

<table>
<thead>
<tr>
<th>Description</th>
<th>Spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDS</td>
<td>97 bps</td>
</tr>
<tr>
<td>Asset Swap (actual bond) interpolated</td>
<td>103 bps</td>
</tr>
<tr>
<td>Interest-rate swap</td>
<td>95 bps</td>
</tr>
<tr>
<td>Risk-free</td>
<td>52 bps</td>
</tr>
</tbody>
</table>

The above imply a 5-year TLP of 6 bps (against the CDS) and 8 bps (against the swap). Note that the combined credit and liquidity cost as implied by spread over risk-free is 51 bps.

Further implied TLP by proxy can be gleaned from the following:

**Pay-fixed in 5-year swap**

<table>
<thead>
<tr>
<th>Description</th>
<th>Spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vanilla IRS</td>
<td>95 bps</td>
</tr>
<tr>
<td>OIS</td>
<td>56 bps</td>
</tr>
</tbody>
</table>

This implies a 5-year TLP of 39 bps. Note this is the 5-year TLP and not the overnight 3-month TLP. For the 1-year TLP we would use the 1-year swap.

**Cost of funds term structure (wholesale market bonds)**

<table>
<thead>
<tr>
<th>Tenor</th>
<th>Spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-month</td>
<td>50 bps</td>
</tr>
<tr>
<td>1-year</td>
<td>61 bps</td>
</tr>
<tr>
<td>2-year</td>
<td>79 bps</td>
</tr>
<tr>
<td>5-year interpolated</td>
<td>103 bps</td>
</tr>
</tbody>
</table>

This implies a 5-year TLP of 53 bps.

**New issue premium**

<table>
<thead>
<tr>
<th>Description</th>
<th>Spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>New issue</td>
<td>132 bps</td>
</tr>
<tr>
<td>Secondary market asset-swap</td>
<td>103 bps</td>
</tr>
</tbody>
</table>

This implies a 5-year TLP of 29 bps.

From the foregoing we have 5 inputs for the 5-year TLP in the range of 6 bps to 53 bps. The average is 27 bps and the median is 29 bps. If we remove the outlier highest and lowest the average is 25.3 bps. We conclude that a logical rate to set for the 5-year TLP is of the order of 25-30 bps. This calculation should be updated periodically, say every quarter.

At first sight this may appear insufficient value for a 5-year liquidity premium. But bear in mind that the bank’s 5-year asset swap is trading at 103 bps, and it is able to issue new 5-year wholesale market FRNs at 132 bps. If the bank’s COF for this tenor is in this range, it is not unexpected that the pure liquidity premium element of this cost should appear to be around 1/3rd of this figure, with the balance representing the issuer credit risk of the bank.