Guidance on Liquidity Risk Management

DECEMBER 2008 - CONSULTATION

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1. Introduction

1.1 In September 2008 the Basel Committee on Banking Supervision ('the Basel Committee') issued a paper entitled "Principles for Sound Liquidity Risk Management and Supervision" ('the Principles'). Previous to issuance, the Basel Committee conducted a fundamental review of its guidance issued in February 2000 entitled "Sound Practices for Managing Liquidity in Banking Organisations" in light of financial market developments and the recent market turmoil.

1.2 Liquidity is the ability of a bank[1] to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses.[2] Liquidity risk arises because banks are in the business of maturity transformation; they take in deposits that are often repayable on demand or at short notice and use these deposits to fund credit facilities to borrowers over longer periods.

Effective liquidity risk management helps ensure a bank's ability to meet cash flow obligations, which are uncertain as they are affected by external events and other agents' behaviour. Liquidity risk management is of paramount importance because a liquidity shortfall at a single institution can have system-wide repercussions. It should be noted that there is no lender of last resort facility in Guernsey.

1.3 As a response to the paper issued by the Basel Committee, the Guernsey Financial Services Commission ('the Commission') has reviewed and updated its guidance on managing liquidity risk. This paper, like the Basel Committee's paper, focuses on funding liquidity risk.[3]

1.4 As part of the process of updating its guidance, the Commission has had due regard to international supervisory practice; in particular in the UK and the other Crown Dependencies, given the close business links to the Bailiwick.

1.5 The Commission will now identify two streams of liquidity management regulation which will cover all Guernsey licensees:

a) Standard Liquidity Approach (SLA) for branches;

b) Enhanced Liquidity Approach (ELA) for subsidiaries.

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[1] The term bank as used in this document generally refers to those banks and branches licensed under The Banking Supervision (Bailiwick of Guernsey) Law, 1994.

[2] Source – 'Principles for Sound Liquidity Risk Management and Supervision', June 2008.

[3] "Funding liquidity risk is the risk that the firm will not be able to meet efficiently both expected and unexpected current and future cash flow and collateral needs without affecting either daily operations or the financial condition of the firm. Market liquidity risk is the risk that a firm cannot easily offset or eliminate a position at the market price because of inadequate market depth or market disruption." Source – 'Principles for Sound Liquidity Risk Management and Supervision', June 2008.

Broadly, the SLA stream will follow the principles of liquidity management regulation that have already been established in Guernsey in the expectation that group liquidity management is being primarily managed from outside Guernsey. The ELA stream will require the application in Guernsey of all relevant aspects of the Basel Principles.

1.6 In terms of implementation, no change will be required for the SLA. However, for the ELA, the following timeline will apply once the new policy is issued:

- Plus 2 months - all draft Liquidity Management Policies (LMPs) to be submitted to the Commission after having been agreed by the board;
- Plus 4 months - all LMPs to be reviewed by the Commission ;
- Plus 6 months - ELA in place for all subsidiaries.

The Commission acknowledges that many subsidiaries are already close to adhering to the Principles and that, for their own internal use, will have been managing liquidity on these proposed lines already.

1.7 This guidance is effective from xx 2009.

2. Standard Liquidity Approach (SLA)

2.1 The mismatch approach measures liquidity through the difference or mismatch between inflows and outflows in various maturity bands. A mismatch figure is obtained by deducting the outflows from inflows, hence the net mismatch. Mismatches are measured on a net cumulative basis by accumulating the net mismatches in each successive maturity band and are evaluated in the cumulative maturity bands of sight to eight days, sight to one month, sight to three months, sight to six months and so on.

2.2 SLA banks are required to submit Module 9 of the BSL/2 quarterly return and to follow the Guidance on completing the Maturity Analysis module as published by the Commission.

2.3 The Commission would not normally expect a negative cumulative mismatch at one month of more than minus 20% (-20%).

2.4 Where a bank exceeds the one month negative maturity mismatch limit of - 20%, it is required to submit to the Commission evidence in support of its liquidity position and explanation for any such exceptions.

2.5 As a minimum, the form of the evidence in support of the liquidity position of banks exceeding the limit in paragraph 2.3 should be a letter to the Commission outlining the bank's liquidity risk management policy and providing a calculation of the adjusted one month mismatch limit taking into account the availability of marketable liquid assets, behavioural adjustments, and any other arrangements the bank may have in relation to its liquidity risk management.

2.6 The Commission will acknowledge the receipt of the letters submitted by banks exceeding the limit in paragraph 2.3 and where necessary will hold further discussions with banks in order to ensure that the level of liquidity risk within the respective institutions is reasonable.

2.7 Adherence to the risks set under the SLA stream must be monitored daily by banks, using the SLA liquidity reporting form.

2.8 The Commission requires all banks at the level of the parent or group as appropriate to comply with the applicable Principles. Banks should provide written assurance to the Commission on adherence and the Commission will, where appropriate and on a case-by-case basis, actively discuss parent/group liquidity with the home supervisor and the parent bank.

3. Enhanced Liquidity Approach (ELA): Maximum Mismatch Limits

3.1 The mismatch approach measures liquidity through the difference or mismatch between inflows and outflows in various maturity bands. A mismatch figure is obtained by deducting the outflows from inflows, the net mismatch. Mismatches are measured on a net cumulative basis by accumulating the net mismatches in each successive maturity band and are evaluated in the cumulative maturity bands of sight to eight days, sight to one month, sight to three months, sight to six months and so on.

3.2 Banks will be provided with new liquidity reporting forms, superceding Module 9 of the current BSL/2 forms, once the Commission approves any behavioural adjustments that will be applied by each firm. An example of the ELA stream reporting form is enclosed as Appendix 4.

3.3 ELA banks are required to report their liquidity positions using the ELA liquidity reporting form on a quarterly basis.

3.4 The Commission sets maximum mismatch limits for the cumulative mismatch reported under the ELA stream for the time periods [sight to less than 8 days] and [sight to less than 1 month] of 0% and -5% respectively. These limits are after taking account of any behavioural adjustments. This is because mismatches are usually only a concern over shorter time horizons and represent critical survival time periods at times of stress.

3.5 With regards to longer term time horizons, the Commission will expect firms to have forward looking liquidity risk management tools and metrics, which allow banks to project cash inflows and outflows under both normal and stress conditions over up to at least a two year time horizon.

3.6 A worst-case scenario basis is used to determine the timing of flows, with inflows being recorded at the latest maturity and outflows at the earliest. This approach allows a bank's liquidity to be assessed in the circumstances of depositors withdrawing their funds and lenders being unwilling to renew their facilities.

3.7 The Commission will assess a bank's liquidity by expressing the net cumulative mismatches as percentages of total deposit liabilities and comparing these to the limits set (after agreed behavioural adjustments, if applicable). Any breaches of the mismatch guidelines should be reported immediately with an explanation of the reason for the breach. A bank is expected to remedy the breach promptly and to take action to prevent future breaches.

3.8 Liquidity mismatch positions should be reported first on a contractual basis, and then allowance may be made for behavioural adjustments (where allowable). This is reflected in the ELA liquidity reporting form (please see Appendix 4 for an example).

3.9 The purpose of allowing behavioural adjustments is to make allowance for the fact that some assets/liabilities may behave differently to their contractual terms. A key example is "notice" deposits where customers may be able to access funds without notice by paying a penalty. The penalty may affect the behaviour of customers in normal circumstances but it does not inhibit the contractual ability of customers to access their funds. Further guidance addressing this issue is contained in Appendix 2 - Behavioural Adjustments.

3.10 ELA banks should apply Appendix 2 of the guidance in relation to behavioural adjustments for reporting purposes.

3.11 A range of liquid assets should be held by credit institutions to meet any cash outflows in the time periods from sight to eight days and eight days to one month.

3.12 Adherence to the limits set under the ELA stream must be monitored daily by banks, using the ELA liquidity reporting form. Any breaches must be reported to the Commission immediately and remedied promptly. Action should be taken to prevent future similar breaches.

3.13 Banks in the ELA stream must demonstrate adherence to the Principles. This should be done by production of an LMP in line with the Principles to be specifically agreed by the Commission.

4. Enhanced Liquidity Approach (ELA): Liquidity Management Policy ('LMP')

4.1 The Commission requires ELA banks to take reasonable steps to maintain appropriate systems for the management of liquidity risk and to provide the Commission with a copy of their LMP for review. It is the responsibility of senior management to draw up the appropriate policy in the light of the particular circumstances of the bank. However, the LMP should be discussed and specifically ratified by the local Board.

4.2 It is important to distinguish between liquidity under normal conditions and liquidity under stressed and crisis conditions. In normal market conditions a bank that is perceived as financially healthy will have relatively easy access to funds from within group or its parent or to wholesale funds on the interbank market, and customers will react in a normal rational manner. However, if the market is under stress, liquidity may dry up and be less readily available.

4.3 Apart from stress conditions in the liquidity market as a whole, an individual bank may itself come under pressure if there are doubts about its financial position, if for example there are concerns about asset quality, earnings, or as a result of the failure of a similar institution. A bank may find it more difficult to raise funds in the interbank market and depositors may withdraw their funds. It is therefore important for banks to consider liquidity management under stressed or crisis conditions.

4.4 The Commission expects all ELA banks to conduct regular stress tests, including bank specific and market wide scenarios to identify sources of potential liquidity strain and to ensure that current exposures remain within the bounds of the bank's established liquidity risk tolerance. Further guidance on stress testing is contained in Appendix 3.

4.5 The LMP should be reviewed annually and any changes ratified by the Board / Senior management to reflect changing circumstances and to ensure that it remains appropriate and prudent.

4.6 The main points that need to be considered when drawing up a Liquidity Management Policy (LMP) are given below (the list is not exhaustive):

Nature of business & asset types
The LMP needs to reflect the nature of the bank's business and the type of assets it is funding.

Funding strategy
The LMP should reflect the bank's funding strategy and acknowledge that the diversity of the sources of funding is important. Relying on just a few lines of credit is less robust than having access to a range of funding sources and types.

Customer base
The nature of a bank's retail deposit base needs to be considered. Some banks have established relatively stable customer bases while others attract deposits by offering higher rates of interest that regularly place them in the "best buy" tables. Depositors who look for the best interest rates are likely to move their deposits to another bank if it is offering better rates and therefore provide a less stable deposit base.

Commission requirements
The LMP should reflect both group and regulatory reporting requirements. The regulatory requirements may include agreed behavioural adjustments, mismatch limits, reporting of any breaches, etc.

Measuring & reporting
A bank needs to employ a range of measurement tools or metrics as there is no single metric that can comprehensively quantify liquidity risk. The metrics should cover, as a minimum, static ratios (e.g. assessing the structure of the balance sheet) and a forward-looking view of liquidity risk exposures. As a minimum the Commission expects that the forward looking approach adopted by the banks will cover at least a two year period.

Relationships between group entities
The LMP should describe the inter-relationship between group entities in respect of liquidity risk management and clearly define procedures and responsibilities. On the basis that many banks provide funding to group or parent companies, it is particularly important that the effect of maturity transformation is recognised in their LMP. A particular emphasis will be put by the Commission, as part of its on-going supervision of liquidity risk management practices, on the Guernsey licensees' legal, and actual, ability to call on placements with group entities and parent organisations. This may entail an exploration by the Commission of group and/or parental liquidity. The Guernsey bank may be required to give evidence to the Commission as to how liquidity in the Guernsey bank can be assured where it has a dependency on the wider liquidity of the group or parent.

Independence
The Commission looks for an appropriate degree of independence for the local entity in managing and maintaining its own liquidity position, as a first line of defence, in the event that external developments make group assistance temporarily unavailable. This can be strengthened through the use of inter-bank deposits and marketable assets.

Marketable assets
The LMP should identify classes of marketable assets that may be purchased, and detail how these should be reported for liquidity purposes. The LMP should also detail any discounts or haircuts that the assets should be subject to.

Behavioural adjustments
The LMP should include details of any specific assets or deposit liabilities that may be subject to behavioural adjustments for liquidity purposes (see Appendix 2 – Behavioural Adjustments).

Treatment of currency
The LMP should include details of the bank's material exposure to foreign currency and how liquidity is addressed for such currency exposure.

5. Fundamental principles for the management of liquidity risk

Principle 1
A bank is responsible for the sound management of liquidity risk. A bank should establish a robust liquidity risk management framework that ensures it maintains sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources.

Principle 2
A bank should clearly articulate a liquidity tolerance that is appropriate for the business strategy of the organisation and its role in the financial system.

Principle 3
Senior management should develop a strategy, policies and practices to manage liquidity risk in accordance with the risk tolerance and to ensure that the bank maintains sufficient liquidity. Senior management should continuously review information on the bank's liquidity developments and report to the board of directors on a regular basis. A bank's board of directors should review and approve the strategy, policies and practices related to the management of liquidity at least annually and ensure that senior management manages liquidity risk effectively.

Principle 4
A bank should incorporate liquidity costs, benefits and risks in the internal pricing, performance measurement and new product approval process for all significant business activities (both on and off balance sheet), thereby aligning the risk taking incentives of individual business lines with the liquidity risk exposures their activities create for the bank as a whole.

Principle 5
A bank should have a sound process for identifying, measuring, monitoring and controlling liquidity risk. This process should include a robust framework for comprehensively projecting cash flows arising from assets, liabilities and off-balance sheet items over an appropriate set of time horizons.

Principle 6
A bank should actively monitor and control liquidity risk exposures and funding needs within and across legal entities, business lines and currencies, taking into account legal, regulatory and operational limitations to the transferability of liquidity.

Principle 7
A bank should establish a funding strategy that provides effective diversification in the sources and tenor of funding. It should maintain an ongoing presence in its chosen funding markets and strong relationships with funds providers to promote effective diversification of funding sources. A bank should regularly gauge its capacity to raise funds quickly from each source. It should identify the main factors that affect its ability to raise funds and monitor those factors closely to ensure that estimates of fund raising capacity remain valid.

Principle 8
A bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems.

Principle 9
A bank should actively manage its collateral positions, differentiating between encumbered and unencumbered assets. A bank should monitor legal entity and physical location where collateral is held and how it may be mobilised in a timely manner.

Principle 10
A bank should conduct stress tests on a regular basis for a variety of short-term and protracted institution specific and market wide stress scenarios (individually and in combination) to identify sources of potential liquidity strain and to ensure that current exposures remain in accordance with a bank's established liquidity risk tolerance. A bank should use stress test outcomes to adjust its liquidity risk management strategies, policies, and positions and to develop effective contingency plans.

Principle 11
A bank should have a formal contingency funding plan (CFP) that clearly sets out the strategies for addressing liquidity shortfalls in emergency situations. A CFP should outline policies to manage a range of stress environments, establish clear lines of responsibility, include clear invocation and escalation procedures and be regularly tested and updated to ensure that it is operationally robust.

Principle 12
A bank should maintain a cushion of unencumbered, high quality liquid assets to be held as insurance against a range of liquidity stress scenarios, including those that involve the loss or impairment of unsecured and typically available secured funding sources. There should be no legal, regulatory or operational impediment to using these assets to obtain funding.

Principle 13
A bank should publicly disclose information on a regular basis that enables market participants to make an informed judgement about the soundness of its liquidity risk management framework and liquidity position.

Appendix 1 Maturity Treatment of Specific Assets and Liabilities under the Enhanced Liquidity Approach

- Banks are required to report on a residual maturity basis.
- Commitments to lend that are not due to be met on a particular date; for example, undrawn overdraft facilities cannot be treated precisely. It is recognised that such facilities are unlikely to be withdrawn in full and that only a proportion of them needs to be included in the sight to eight days maturity band. Where banks are unable to produce an estimate of amounts likely to be withdrawn based on an analysis of past and forecast trends then 35% of outstanding commitments should be included.
- In adverse conditions fiduciary deposits and client money accounts[4] may be withdrawn at short notice. Their treatment for liquidity purposes needs to take account of this.
- Contingent liabilities normally do not have cash flow implications and are therefore excluded from the maturity ladder unless the occurrence of trigger events is likely. For example, if a bank has given a guarantee on behalf of a customer and it is known that the customer is likely to default, then the guarantee should be included in the maturity ladder as an outflow.
- Undrawn committed standby facilities from other banks are treated as sight assets. As with commitments to lend, a percentage of the undrawn committed standby facilities are included. This percentage can be up to 100%, with the prior agreement of the Commission, dependent on such factors as the absence of material adverse event clauses in the facility agreement, the frequency with which the facility is used or tested and the strength of the relationship with the facility provider.
- Assets pledged as collateral are excluded from the maturity ladder, as they are no longer available to the bank to meet obligations.

[4] Client money account means an account, at a bank in the name of a licensee carrying out controlled investment business, which includes in its title an appropriate description to distinguish the money in the account from a licensee's own money. Client money is money of any currency which, in the course of carrying on controlled investment business, a licensee holds for, receives from, or owes to, a client.

Appendix 2 Behavioural Adjustments under the Enhanced Liquidity Approach

1. Rationale for Behavioural Adjustments

1.1 The behaviour of a bank's deposit base is central to its liquidity management policy. It has long been accepted that actual cash flows from a bank's deposit liabilities bear little resemblance to their contractual maturity. In particular, only a small percentage of demand deposits are likely to be withdrawn on any one day, and fixed term deposits are often renewed automatically on each maturity date. This behaviour reflects customers' desire to keep their savings readily available in case of any emergency or unforeseen event, rather than an intention to withdraw their funds.

1.2 Additionally some assets, such as certificates of deposit, bills of exchange and bonds can be highly liquid, and may be sold at short notice in order to provide liquidity.

1.3.1 The current guidance includes a measure to impose maximum liquidity mismatch limits after behavioural adjustments in the sight to eight days and sight to 1 month maturity bands (0% and -5% of total deposit liabilities respectively) for all banks applying the ELA stream.

1.3.2 In order to recognise the behaviour of some deposit liabilities, the Commission is offering these banks the opportunity to apply to report their cash flows on a behaviourally adjusted basis.

1.4 The levels of behavioural adjustments will be agreed with banks on a case by case basis, taking into account a number of factors outlined in sections 3, 4 and 5 below.

2. Overview of the Commission's Approach to Behavioural Adjustments

2.1 The Commission requires a bank to have a prudent Liquidity Management Policy (LMP) and appropriate systems in place to measure and monitor liquidity, and to ensure that the policy is adhered to. The policy should comply with the Principles for Sound Liquidity Risk Management and Supervision as published by the Basel Committee on Banking Supervision (the Principles), and may take into account any prudent level of behavioural adjustments agreed between the Commission and the bank.

2.2 When establishing what a "prudent level of behavioural adjustments" is, it is important to take into account the fact that liquidity limits exist to ensure that a bank has a sufficient pool of available funds or liquid assets to enable it to meet its obligations in times of liquidity stress or disruption. As banks' business and risk profiles differ enormously, it is necessary to examine a

number of different issues as they may relate to individual banks during a period of liquidity distress before agreeing a prudential level of behavioural adjustment.

2.3 It should also be noted that the Commission analyses banks on an ongoing basis and that they might not always consider it appropriate for behavioural adjustments to be granted to a bank. Additionally, in some instances, the Commission may impose conditions requiring a bank to maintain a stock of liquidity with, or issued by, third party banks.

3. Deposit Liabilities

3.1 Banks applying for behavioural adjustments are required to analyse their deposit base into the following broad categories:

Wholesale deposits
Including deposits from banks and building societies (including non-committed funding from other group companies), and "commercial" deposits from international insurance companies ('Financial corporations'), central and national governments and their agencies (or equivalent bodies) ('Public sector'). Money market interest rates are likely to be paid on these deposits, and they are likely to be the first to invoke contractual repayment in the event of liquidity disruption. The Commission will treat all 'Financial corporations' and 'Public sector' deposits as wholesale deposits and will not allow behavioural adjustments on these.

Corporate
Including deposits from, or introduced by, small and medium sized enterprises, trust companies, corporate service providers, collective investment schemes, investment managers, accountants and lawyers etc. (Non-financial corporations). This represents the large "grey area" between wholesale and retail deposits. Typically, these deposits will be substantially "stickier" and less price sensitive than wholesale, but if not, as the business is directed through a fiduciary intermediary, the deposits cannot be deemed to be as stable as retail deposits. The Commission will treat the 'Non-financial corporations' deposits as corporate and will consider limited behavioural adjustments on them.

Retail
The Commission will accept 'Household and individual trusts' deposits as retail. Retail deposits tend to be the most stable and therefore may attract a higher behavioural adjustment.

3.2 Further analysis of deposit books over the last 3 years should be undertaken in order to provide supporting evidence to the Commission. In particular, the following areas should be examined and details presented:

a) *Deposit Profile*

i) Deposit mix – retail / corporate / wholesale (See above for guidance).

ii) Deposit concentration by depositor (and connected parties), sector, industry, or geographic classification if not widely spread.

b) *Product Profile*- Identifying the bank's core products and its contractual liquidity profile.

c) Deposit analysis - The analysis should evidence:

i) The "stickiness" of deposits by product.

ii) Numbers and values of new and closed accounts.

4. Behavioural Adjustments to Assets

4.1 A standard behavioural adjustment for overdrafts is allowable. Although technically available on demand, overdrafts should be reported in the one to three months maturity band.

4.2 Prior approval of the Commission is required before applying behavioural adjustments to any other assets.

5. Methodology

5.1 The Commission will assess banks' applications for behavioural adjustments on a case by case basis.

5.2 When determining the level of adjustment, the Commission will, in addition to the above, examine a number of areas, including, but not limited to the following:

a) Ownership
- Degree of likely parental support in a liquidity disruption.
- Parent's standing.
- Parent's country of domicile

b) Independent liquidity
- Level and quality of independent liquidity held e.g. stock of liquid assets held.

c) Business rationale
- Nature of business.
- Business strategy.
- Asset mix.

d) Pricing policy – how aggressive is the bank's pricing strategy on deposits?

5.3 The Commission will then meet with the bank to discuss the analyses on deposits and loans and to ascertain the level of adjustment sought by the bank.

5.4 The agreed adjustments will represent the percentage of the amount maturing in the [sight to less than eight days] and [eight days to less than one month] maturity bands that should be factored out of the contractual maturity bands and placed in an alternative maturity band. Different levels of adjustment may be allocated to different classes. In certain circumstances, e.g. during a period

of liquidity disruption, the Commission may impose variations to the level of behavioural adjustments.

6. Procedures and Systems

6.1 Once behavioural adjustments have been agreed with the Commission they should be reflected in the bank's LMP.

6.2 The bank should maintain ongoing analysis of the deposit base to support their case for behavioural adjustments to their deposit liabilities. Such analysis, should, on request, be made available to the Commission.

6.3 Should the analysis show that the bank's deposit profile has undergone material change, the bank should notify the Commission immediately, giving full details of the change.

6.4 Banks may, at any time, apply to the Commission to alter the levels of behavioural adjustments previously agreed. Any request for an increase in the levels should be supported by empirical evidence.

Appendix 3 Stress testing under the Enhanced Liquidity Approach

1. Stress testing process

1.1 The Commission requires all ELA allocated banks to conduct stress tests.

1.2 Tests should consider the implication of scenarios across different time horizons, including on an intraday basis.

1.3 The extent and frequency of testing should be commensurate with the size of the bank and its liquidity risk exposures, but as a minimum the Commission expects stress testing on annual basis. Banks should build in the capability to increase the frequency of tests in special circumstances, such as in volatile market conditions or at the request of the Commission.

1.4 Senior management should be actively involved in the stress testing and should ensure that rigorous and challenging stress scenarios are considered, even in times when liquidity is plentiful.

1.5 The Commission requires all ELA banks to submit annually a written statement on the utilization of the results from the stress testing. Additional guidance on the utilization of the results is provided in section 3 of the appendix.

1.6 The annual review of the LMP and ratification by the Board / Senior Management should take account of the findings of the stress testing process.

2. Scenarios and assumptions

2.1 In designing stress scenarios, the nature of the bank's business, activities and vulnerabilities should be taken into consideration so that the scenarios incorporate the major funding and market liquidity risks to which the bank is exposed. These include risks associated with its business activities, products (including complex financial instruments and off-balance sheet items) and funding sources. The defined scenarios should allow the bank to evaluate the potential adverse impact these factors can have on its liquidity position.

2.2 History may serve as one guide when designing stress tests; however, historical events may not prove to be a good predictor of future events. A bank should carefully consider the design of scenarios and the variety of shocks used. A bank should consider short-term and protracted, as well as institution-specific and market-wide, stress scenarios in its stress tests, including:

- a simultaneous drying up of market liquidity in several previously highly liquid markets;

- severe constraints in accessing secured and unsecured funding;
- restrictions on currency convertibility; and
- severe operational and / or settlement disruptions affecting one or more payment or settlement systems.

Regardless of how strong its current liquidity situation appears to be, a bank should consider the potential impact of severe stress scenarios, and not dismiss severe scenarios as “implausible”. These need to be realistic and plausible, but on the other hand are expected to cover very unusual and unexpected events. Banks need to consider and select carefully the correct balance.

2.3 A bank should specifically take into account the link between reductions in market liquidity and constraints on funding liquidity. A bank should also consider the insights and results of stress tests performed for various other risk types when stress testing its liquidity position and consider possible interactions with these other types of risk.

2.4 A bank should recognise that stress events may simultaneously give rise to time-critical liquidity needs in multiple currencies and multiple payment and settlement systems. Moreover, these liquidity needs could arise both from the institution’s own activities, as well as from those of its customer banks and firms. They also could arise from the special roles a bank might play in a given settlement system, such as acting as a back-up liquidity provider or settlement bank.

2.5 Tests should reflect accurate time-frames for the settlement cycles of assets that might be liquidated, and the time required to transfer liquidity across borders. In addition, if a bank relies upon liquidity outflows from one system to meet obligations in another, it should consider the risk that operational or settlement disruptions might prevent or delay expected flows across systems. This is particularly relevant for firms relying upon intra-group transfers or centralised liquidity management.

2.6 A bank should take a conservative approach when setting stress testing assumptions. Based on the type and severity of the scenario, a bank needs to consider the appropriateness of a number of assumptions, potentially including but not limited to the following:

- asset market illiquidity and the erosion in the value of liquid assets;
- the run-off of retail funding;
- the (un)availability of secured and unsecured wholesale funding sources;
- the correlation between funding markets or the effectiveness of diversification across sources of funding;
- additional margin calls and collateral requirements;
- funding tenors;
- contingent claims and more specifically, potential draws on committed lines extended to third parties or the bank's subsidiaries, branches or head office;
- the liquidity absorbed by off-balance sheet vehicles and activities (including conduit financing);

- the availability of contingent lines extended to the bank;
- liquidity drains associated with complex products/transactions;
- the impact of credit rating triggers;
- FX convertibility and access to foreign exchange markets;
- the ability to transfer liquidity across entities, sectors and borders taking into account legal, regulatory, operational and time zone restrictions and constraints;
- the access to central bank facilities;
- the operational ability of the bank to monetise assets;
- the bank's remedial actions and the availability of the necessary documentation and operational expertise and experience to execute them, taking into account the potential reputational impact when executing these actions;
- estimates of future balance sheet growth.

2.7 A bank should consider in its stress tests the likely behavioural response of other market participants to events of market stress and the extent to which a common response might amplify market movements and exacerbate market strain. A bank should also consider the likely impact of its own behaviour on that of other market participants.

2.8 A bank’s stress tests should consider how the behaviour of counterparties (or their correspondents and custodians) would affect the timing of cash flows, including on an intraday basis. Where a bank uses a correspondent or custodian to conduct settlement, the analysis should include the impact of those agents restricting their provision of intraday credit. A bank should also understand the impact of the stress event on its customers’ use of their intraday credit, and how those needs affect its own liquidity position.

2.9 The scenario design should be subject to regular review to ensure that the nature and severity of the tested scenarios remain appropriate and relevant to the bank. Reviews should take into account changes in market conditions, changes in the nature, size, or complexity of the bank’s business model and activities, and actual experiences in stress situations.

2.10 In order to identify and analyse factors that could have a significant impact on its liquidity profile, a bank may conduct an analysis of the sensitivity of stress test results to certain key assumptions. Such sensitivity analyses can provide additional indications of a bank’s degree of vulnerability to certain factors.

3. Utilisation of results

3.1 Senior management should review stress test scenarios and assumptions as well as the results of the stress tests. The bank’s choice of scenarios and related assumptions should be well documented and reviewed together with the stress test results. Stress test results and vulnerabilities and any resulting actions should be reported to and discussed with the board and a written statement sent to the Commission. Senior management should integrate the results of the stress testing process into the bank’s strategic planning process

(e.g. bank management could adjust its asset-liability composition) and the firm's day-to-day risk management practices (e.g. through monitoring sensitive cash flows or reducing concentration limits). The results of the stress tests should be explicitly considered in the setting of internal limits.

3.2 Senior management should incorporate the results of scenarios in assessing and planning for related potential funding shortfalls in the institution's contingency funding plan. To the extent that projected funding deficits are larger than (or projected funding surpluses are smaller than) implied by the bank's liquidity risk tolerance, management should consider whether to adjust its liquidity position or to bolster the bank's contingency plan in consultation with the board.

Appendix 4 ELA Reporting Form

Dec-08	Committed Standby Facilities	Total	Overdue	Next Day	2 days to <8 days	8 days to <1 month	1 month to <3 months	3 months to <6 months	6 months to <1 year	1 year to <3 years	3 years to <5 years	5 years & over incl undated
LIABILITIES / OUTFLOWS												
Deposit Liabilities:												
Banks/building societies		0										
Financial corporations		0										
Non-financial corporations		0										
Public sector		0										
Households and individual trusts		0										
Total deposit liabilities		0										
Undrawn commitments to make loans & advances etc		0										
Other liabilities		0										
TOTAL LIABILITIES / OUTFLOWS		0	0	0	0	0	0	0	0	0	0	0
Behavioural adjustments to liabilities / outflows												
Non-financial corporations		0										
Households and individual trusts		0										
Undrawn commitments to make loans & advances etc		0										
Other		0										
TOTAL BEHAVIOURALLY ADJUSTED LIABILITIES / OUTFLOWS		0	0	0	0	0	0	0	0	0	0	0
ASSETS / INFLOWS												
Market loans		0										
Treasury/local authority bills/CDs		0										
Commercial paper and FRNs of less than 1 year's maturity		0										
OECD government securities		0										
Other investments		0										
Loans and advances		0										
All other assets		0										
TOTAL ASSETS / INFLOWS		0	0	0	0	0	0	0	0	0	0	0
Behavioural adjustments to assets / inflows												
Overdrafts		0										
Other		0				0	0					
TOTAL BEHAVIOURALLY ADJUSTED ASSETS / INFLOWS		0	0	0	0	0	0	0	0	0	0	0
Behaviourally adjusted net flow			0	0	0	0	0	0	0	0	0	0
Cumulative Net Flow			0	0	0	0	0	0	0	0	0	0
Cumulative Net Flow as % of *Total deposit liabilities*			#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Limits					0%	-5%						
					#DIV/0!	#DIV/0!						

Appendix 5 Worked example of the ELA Reporting Form

We simulate a bank with total assets of £ 699,000 K and off-balance sheet commitments for £ 5,626 K. The purpose of this simulation is for illustrative purposes only and does not intend to replicate a 'real' bank balance sheet position. It should only be looked at as demonstrating how the proposed new reporting form is expected to work.

On page 24 we have the contractual maturity analysis before any behavioural adjustments - it shows 0% mismatch for 2 to 8 days period and -8% mismatch for the 8 days to 1 month period. The second (-8%) is in breach of the proposed limit of -5%.

On page 25 we have the scenario with the behavioural adjustments as follows:

A Non-financial corporations - the bank has agreed with the Commission that 5% of '2 days to 8 days' and 10% of '8 days to 1 month' will be reclassified into the '1 month to 3 months' time band due to the (proven by the bank) stickiness of these deposits.

B Households and individual trusts - the banks has agreed with the Commission that 15% of '2 days to 8 days' and 30% of '8 days to 1 month deposits will be re-classified into the '1 month to 3 months' time band due to the proven stickiness of the deposits'

C Undrawn commitments - the bank has proven that 35% is a reasonable rate to be recognised in the respective time bands as outflows based on its knowledge of customers and historical trends. As a result the Commission has allowed a reduction of 65% of the contractually committed amounts for the purposes of the liquidity reporting

D The bank holds £ 12,000 K 3-month US Government bonds and has agreed with the Commission that these are highly liquid and could be reclassified from '1 to 3 months' time band into '8 days to 1 month' time band subject to a 10% haircut.

The resulting adjustment on the reported liquidity position is as follows:

- next day to 8 days mismatch does not change but is within the prescribed limit; and
- the 1 month mismatch moves from -8% (which is outside the prescribed limit) to -5% which is at the limit

Appendix 5 Worked example of the ELA Reporting Form

Dec-08	Committed Standby Facilities	Total	Overdue	Next Day	2 days to <8 days	8 days to <1 month	1 month to <3 months	3 months to <6 months	6 months to <1 year	1 year to <3 years	3 years to <5 years	5 years & over incl undated
LIABILITIES / OUTFLOWS												
Deposit Liabilities:												
Banks/building societies		48,231		4,000	3,000	3,212	6,422	23,412	4,212	331	3,421	221
Financial corporations		50,805		10,000	2,123	3,453	12,332	16,000	6,421	432	10	34
Non-financial corporations		458,276		200,000	3,121	45,232	54,232	65,345	32,313	54,356	3,245	432
Public sector		2,000		100	50	1,234	616					
Households and individual trusts		131,923		343	543	3,533	6,533	76,573	43,563	323	512	
Total deposit liabilities		691,235										
Undrawn commitments to make loans & advances etc		5,626		5,000	442		100	34		50		
Other liabilities		7,765		1,200	5,626	32	123			784		
TOTAL LIABILITIES / OUTFLOWS		704,626	0	220,643	14,905	56,696	80,358	181,364	86,509	56,276	7,188	687
Behavioural adjustments to liabilities / outflows												
Non-financial corporations		0					0					
Households and individual trusts		0					0					
Undrawn commitments to make loans & advances etc		0				0	0					
Other		0										
TOTAL BEHAVIOURALLY ADJUSTED LIABILITIES / OUTFLOWS		704,626	0	220,643	14,905	56,696	80,358	181,364	86,509	56,276	7,188	687
ASSETS / INFLOWS												
Market loans		687,000		225,000	10,000	4,000	240,000	90,000	70,000	44,000	4,000	
Treasury/local authority bills/CDs		12,000					12,000					
Commercial paper and FRNs of less than 1 year's maturity		0										
OECD government securities		0										
Other investments		0										
Loans and advances		0										
All other assets		0										
TOTAL ASSETS / INFLOWS		699,000	0	225,000	10,000	4,000	252,000	90,000	70,000	44,000	4,000	0
Behavioural adjustments to assets / inflows												
Overdrafts		0										
Other		0				0						
TOTAL BEHAVIOURALLY ADJUSTED ASSETS / INFLOWS		699,000	0	225,000	10,000	4,000	252,000	90,000	70,000	44,000	4,000	0
Behaviourally adjusted net flow			0	4,357	-4,905	-52,696	171,642	-91,364	-16,509	-12,276	-3,188	-687
Cumulative Net Flow			0	4,357	-548	-53,244	118,398	27,034	10,525	-1,751	-4,939	-5,626
Cumulative Net Flow as % of *Total deposit liabilities*			0%	1%	0%	-8%	17%	4%	2%	0%	-1%	-1%
Limits					0%	-5%						

Appendix 5 Worked example of the ELA Reporting Form

Dec-08	Committed Standby Facilities	Total	Overdue	Next Day	2 days to <8 days	8 days to <1 month	1 month to <3 months	3 months to <6 months	6 months to <1 year	1 year to <3 years	3 years to <5 years	5 years & over incl undated
LIABILITIES / OUTFLOWS												
Deposit Liabilities:												
Banks/building societies		48,231		4,000	3,000	3,212	6,422	23,412	4,212	331	3,421	221
Financial corporations		50,805		10,000	2,123	3,453	12,332	16,000	6,421	432	10	34
Non-financial corporations		458,276		200,000	3,121	45,232	54,232	65,345	32,313	54,356	3,245	432
Public sector		2,000		100	50	1,234	616					
Households and individual trusts		131,923		343	543	3,533	6,533	76,573	43,563	323	512	
Total deposit liabilities		691,235										
Undrawn commitments to make loans & advances etc		5,626		5,000	442		100	34		50		
Other liabilities		7,765		1,200	5,626	32	123			784		
TOTAL LIABILITIES / OUTFLOWS		704,626	0	220,643	14,905	56,696	80,358	181,364	86,509	56,276	7,188	687
Behavioural adjustments to liabilities / outflows												
Non-financial corporations		0			-156	-4,523	4,679					
Households and individual trusts		0			-81	-1,060	1,141					
Undrawn commitments to make loans & advances etc		0		-3,250	-287	0	3,537					
Other		0										
TOTAL BEHAVIOURALLY ADJUSTED LIABILITIES / OUTFLOWS		704,626	0	217,393	14,380	51,113	89,716	181,364	86,509	56,276	7,188	687
ASSETS / INFLOWS												
Market loans		687,000		225,000	10,000	4,000	240,000	90,000	70,000	44,000	4,000	
Treasury/local authority bills/CDs		12,000					12,000					
Commercial paper and FRNs of less than 1 year's maturity		0										
OECD government securities		0										
Other investments		0										
Loans and advances		0										
All other assets		0										
TOTAL ASSETS / INFLOWS		699,000	0	225,000	10,000	4,000	252,000	90,000	70,000	44,000	4,000	0
Behavioural adjustments to assets / inflows												
Overdrafts		0										
Other		0				10,800	-10,800					
TOTAL BEHAVIOURALLY ADJUSTED ASSETS / INFLOWS		699,000	0	225,000	10,000	14,800	241,200	90,000	70,000	44,000	4,000	0
Behaviourally adjusted net flow			0	7,607	-4,380	-36,313	151,484	-91,364	-16,509	-12,276	-3,188	-687
Cumulative Net Flow			0	7,607	3,227	-33,086	118,398	27,034	10,525	-1,751	-4,939	-5,626
Cumulative Net Flow as % of *Total deposit liabilities*			0%	1%	0%	-5%	17%	4%	2%	0%	-1%	-1%
Limits					0%	-5%						

A 5% classifying into 1 to 3 months

B 15% classifying into 1 to 3 months

A 10% classifying into 1 to 3 months

B 30% classifying into 1 to 3 months

C only 35% to be taken for liquidity purpuses

D reclassifying marketable assets in 8 days to 1 month with 10% haircut