Comments on NSFR and an Alternative Approach to Measuring Stable Funding

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This paper is submitted in response to the Basel Committee on Banking Supervision's (BCBS) consultative document "Basel III: The Net Stable Funding Ratio", published January 2014.

Contents

Purpose

This paper comments on the revised BCBS Consultative Document, Basel III: The Net Stable Funding Ratio, published in January 2014, for comments by 11th April 2014.

We appreciate the BCBS invitation to comment on the Net Stable Funding Ratio (NSFR).

Executive summary

In this response we provide comments on: 1. the Required Stable Funding ("RSF") liquidity risk factors, 2. the Available Stable Funding ("ASF") liquidity risk factors and we then propose an alternative approach to looking at quantifying stable funding.

For the asset side of the balance sheet we consider that the RSF liquidity risk factors are heavily weighted in favour of traditional loan assets. However, the process of transforming these illiquid loan assets into marketable securities is well understood and is evidenced by lower haircuts at central bank discount windows. The RSF fails to make the same connection and does not have a sufficiently granular or maturity based approach to analyse different types of asset.

On the liability side of the balance sheet we observe that the ASF liquidity risk factors reflect the insured nature of retail deposits. Further the simple change in ASF at one year creates a stair step function that we consider should be a continuum. We also highlight some unintended consequences of the NSFR calculation as it is currently defined.

Finally, we suggest an alternative to the NSFR which enables regulators, depositors, investors and bank management to apply their own opinions about liquidity risk factors and that this diversity of opinions is complementary to prudent regulatory minimums. This approach enables each market participant to make their own calculation of bank specific "survival times" and to perform sensitivity analysis. However, we see this approach as a long term goal and not as an immediate replacement to the NSFR.

Background

The BCBS has been developing the Liquidity Coverage Ratio ("LCR") and Net Stable Funding Ratio "NSFR", to be adopted as the Basel III Liquidity Adequacy standards.

The BCBS (January 2014) represents that the Basel III liquidity standards are designed to achieve "two *separate but complementary* objectives":

- LCR – "to promote the short-term resilience of a bank's liquidity risk profile by ensuring that it has sufficient High Quality Liquid Assets ("HQLA") to survive a significant stress scenario lasting for 30 days"; and
- NSFR – "to reduce funding risk over a longer time horizon by requiring banks to fund their activities with sufficiently stable sources of funding in order to mitigate the risk of future funding stress".

In January 2013 the final form of the Basel III LCR was released. The LCR considers 30 calendar days' cash outflows, retail deposits are assumed a run-off rate of only 3%, 5% or 10% depending on deposit type, while wholesale deposits assume 100% run-off (although non-financial corporate deposits assume 40%). These outflows are to be covered by a buffer of HQLA, made up of:

- HQLA Level 1 (predominately government bonds);
- HQLA Level 2A ("AA-" or better covered bonds and non-financial corporate bonds); and
- HQLA Level 2B ("BBB-" or better non-financial corporate bonds; and "AA" or better RMBS – subject to some restrictions).

In the LCR, HQLA are subject to haircuts (15% to 50%) and caps (a maximum of 40% of total HQLA in Level 2 assets, with a maximum 15% of Level 2B assets).

The January 2014 revision of the NSFR introduced a revision to the asset classifications in the fact that they were more closely aligned with the LCR definitions, absent the caps, as noted above.

The BCBS also called for a graded introduction of minimum LCR of 60% in 2015 rising to 100% in 2019.

Commentary

We agree with the BCBS goal of promoting funding stability and of the importance of having both a measure of liquidity coverage of immediate or "peak" need for funds and a longer term structural measure of funding stability.

Comment 1: Asset liquidity risk factors. RSF.

RSF factors are arbitrary liquidity risk factors are set to provide a measure of the liquidity of the asset and hence the quantum that should be term funded. We make points (a) to (e) below.

a) We find the liquidity risk factors applied to loans relative to ABS the most difficult to justify.

Senior tranches of ABS are treated as High Quality Liquid Assets ("HQLA") for the purposes of the LCR test and are given low haircuts by central bank discount window facilities, when loans are not readily discountable. When loans are accepted by central banks they are typically subject to much higher haircuts (this is further explored in *Comment 2, below*)

So the NSFR may not adequately recognise the liquidity of securities vs. that of loans, i.e.:

Category example	RSF	Components of RSF category
RMBS	50%	Unencumbered Level 2B assets
Residential mortgages "Higher quality" loans	65%	Unencumbered residential mortgages with a residual maturity of one year or more and with a risk weight of less than or equal to 35% Other unencumbered loans not included in the above categories, excluding loans to financial institutions, with a residual maturity of one year or more and with a risk weight of less than or equal to 35% under the Standardised Approach

Non-HQLA Corporate *Financials* *Non-HQLA ABS* *"Lower quality" loans*	85%	Other unencumbered performing loans with risk weights greater than 35% under the Standardised Approach and residual maturities of one year or more, excluding loans to financial institutions Unencumbered securities that are not in default and do not qualify as HQLA including exchange-traded equities

ABS backed by credit cards, student/consumer loans, auto loans etc. are defined as almost illiquid (85% RSF) and actually rank as less liquid than certain mortgage and other loan portfolios (65% RSF), and that other loans (85% RSF) have the same liquidity ranking as some central bank eligible securities (Non-HQLA Corporate / financial).

This suggests that the RSF factors are out of step with central bank definitions of eligible collateral and haircuts (i.e. cost of obtaining liquidity). Consequently, banks will ultimately go through the cost of securitising to in order to make their balance sheets more liquid due to the latter beneficial treatment resulting in the NSFR's relegation to a redundant measure of *actual* liquidity adequacy.

The BCBS Jan 2014 paper states:

13. In determining the appropriate amounts of required stable funding for various assets, the following criteria were taken into consideration, recognising the potential trade-offs between these criteria:

> *(a) Resilient credit creation – The NSFR requires stable funding for some proportion of lending to the real economy in order to ensure the continuity of this type of intermediation.*
> *(b) Bank behaviour – The NSFR is calibrated under the assumption that banks may seek to roll over a significant proportion of maturing loans to preserve customer relationships.*
> *(c) Asset tenor – The NSFR assumes that some short-dated assets (maturing in less than one year) require a smaller proportion of stable funding because banks would be able to allow some proportion of those assets to mature instead of rolling them over.*
> (d) Asset quality and liquidity value – The NSFR assumes that unencumbered, high-quality assets that can be securitised or traded, and thus can be readily used as collateral to secure additional funding or sold in the market, do not need to be wholly financed with stable funding.

Point (d) is then ignored when setting the RSF levels.

b) As pointed out above we observe that ***central bank emergency liquidity facilities require significantly lower haircuts than the RSF liquidity factors***. So for eligible HQLA that can be discounted using these emergency facilities (i.e. the cost of transforming these assets into cash or government securities which have 0% RSF) should be able to use the applicable central bank haircut as their appropriate RSF.

Therefore, we propose the introduction of a "Central Bank Eligible Assets" category as part of the NSFR calculation that attracts a RSF percentage that is the haircut required if the asset was pledged under central bank facilities.

c) Asset liquidity is determined by credit quality, market depth, private sector repo markets and ultimately central bank eligibility. It cannot usefully be simplified into a single RSF factor and we would expect a continuum of risk factors which contain a maturity function which approximates the time and cost of obtaining liquidity from each type of asset. Most central bank facilities use maturity buckets and this relates directly to (b) above.

d) While the LCR applies caps to limit the amount of HQLAs that can be held the NSFR should not contain such limitations. The LCR is a test of peak liquidity (to cover the next 30 days only) and so it is reasonable to assign limits to how much liquidity can be obtained from each asset class in a short time frame. Such limits should be set in relation to market depth, not in relation to the balance sheet size of an individual bank, as this imposes higher costs to smaller banks and to new entrants. In contrast, the NSFR is currently defined as a one year structural measure of liquidity, so no limits on market depth should be required over such a long time frame.

e) In general we do not agree with standardised asset liquidity risk factors and with a process that is transparent to regulators and opaque to depositors and investors. Our view is that regulators should set standards for disclosure and provide their own asset liquidity risk factors (linked to central bank facilities), but also allow market participants to use their own liquidity risk factors for their own analysis. But for this to be possible, high-level data of the asset composition by broad classifications and maturity needs to be publically available, not just to regulators. We expect that such common standards of disclosure and transparency will drive institutions to achieve best-in-peer-group status, thus allowing market forces to drive prudent balance sheet composition.

Comment 2: Liability liquidity risk factors. ASF.

ASF factors are arbitrary liability liquidity risk factors that provide rollover assumption for each type of liability to "behaviouralise" the expected depositor and investor behaviour for each type of liability. We make point s (a) to (x) below

a) The liquidity risk factors for retail deposits are 90%-95%, making on-demand deposits (i.e. contractually overnight) close to permanent equity (logically set by BCBS at 100%) in terms of their ASF. In contrast wholesale deposits liquidity risk factors are 40-50% depending if they are categorised as financial or non-financial and if their tenor is greater or less than 1 year. This appears to be an extreme case of favouring retail deposits over wholesale deposits.

We acknowledge the importance of the insurance of retail deposits and the powerful effect this has on making retail deposits more "sticky". However, this is predicated on the belief that the insurance will be honoured, on the credit quality of the insurer (the local government and any supranational backstop) and the limits on the amount insured. Deposit insurance definitely improves the "stickiness" of retail deposits, but not for all banks in all situations.

We suggest that any assumptions about the behaviour of depositors are likely to be wrong when they are most required to be right. Retail depositor behaviour has changed in recent years as a

consequence of both improved information available from multiple media sources and electronic banking access to enable transfers even when wholesale institutional investors are not at their desks. Moves to "bail in" bond holders and depositors may have changed the perception of the nature of the insurance "contract". Consequently deposits may have become less "sticky". Examples from recent years such as Northern Rock, Greece and Cyprus, suggest a real change in retail behaviour, which, admittedly, ex post may have been positively impacted by increased levels of deposit protection.

b) In the current definition of the NSFR, 364 day wholesale funding attracts 50% ASF vs. 100% ASF for 365 days. So term liquidity transitioning from 365 to 364 days experiences a "liquidity cliff" of a 50% reduction in regulatory liquidity. As in 1(c) above we propose a maturity function for ASF, expressed as a continuum, as opposed to a simple step change in regulatory liquidity coverage. This will also assist new entrants, as they can experience unstable NSFR when term liabilities grow rapidly from a low base.

c) The possibility of regulators favouring retail depositors in a time of stress or during a restructuring creates ***"retail depositor preference"*** from the perspective of wholesale depositors. This makes wholesale depositors more sensitive to stress and more likely to "run" ahead of retail depositors. For this reason, a "wholesale only" funded bank may be entitled to higher liquidity risk weightings on its wholesale deposits (when compared to a bank funded by a mix of retail and wholesale deposits) as there is no risk of "retail depositor preference". For banking systems favouring ring fencing "wholesale only institutions" this should be considered.

d) We propose the same approach as for liability liquidity risk factors as outlined for asset liquidity risk factors in 1(e) above, that is retaining the standard regulatory risk factors as the regulatory standard and providing the raw data (by type and maturity) and thereby enabling depositors, investors and bank management the flexibility to assign their own liability liquidity risk factors.

This logic is relatively simple to apply in the methodology set out in *Comment 3*.

Comment 3: An Alternative Approach

We suggest an alternative approach to a stable funding measure (as an addition to NSFR in the first instance, but as a possible longer term replacement) that is more similar to that used by many banks already. This uses a "time value of liquidity" concept that looks at the cost of closing the asset-liability maturity gap using a range of behaviouralisation assumptions for both assets and liabilities in addition to standard regulatory assumptions.

While the NSFR applies standardised liquidity risk factors to both assets and liabilities ***before*** doing the coverage calculation, we suggest that they should be applied ***last*** so that they can be varied by depositors, investors, bank management and regulators to create thoughtful sensitivity analysis which also ties back to solvency. This is will be possible when combined with the proposed increased data transparency proposed in 1(e) and 2(d) above.

The process we propose is as follows:

1. Set out all the known/estimated cash flows of the bank on their scheduled payment date. This includes all derivatives and all option-like positions (undrawn facilities, puttable securities etc.) based on their actual legal status and worst case cash flows for the bank. This process avoids any

cliff effects as assets and liabilities transition from greater than one year to less than one year (or any other arbitrary date) and places each cash flow on its expected date. We would envisage this to be done for a series of time buckets and for both asset and liability types, set by regulators, so that all banks report to the same standard. See Figure 1 below for cash outflows (mostly liabilities) and Figure 2 for cash inflows (mostly assets).

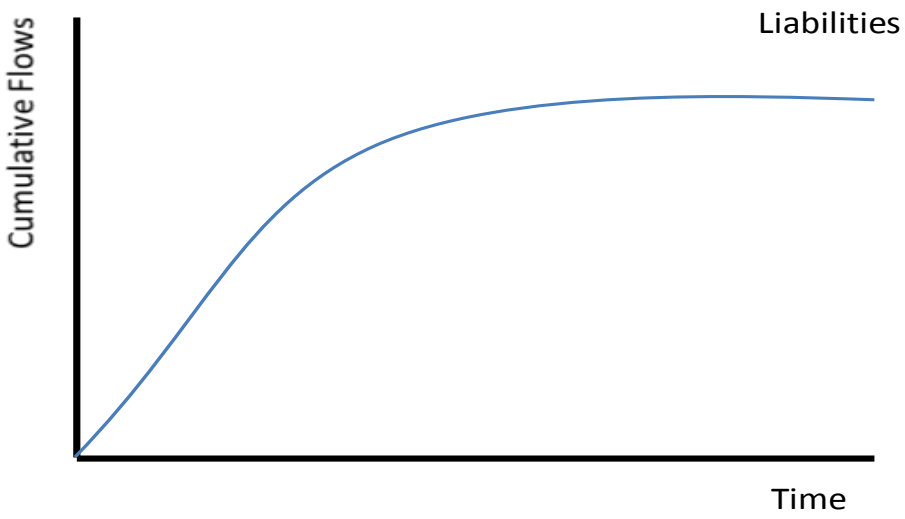

Figure 1

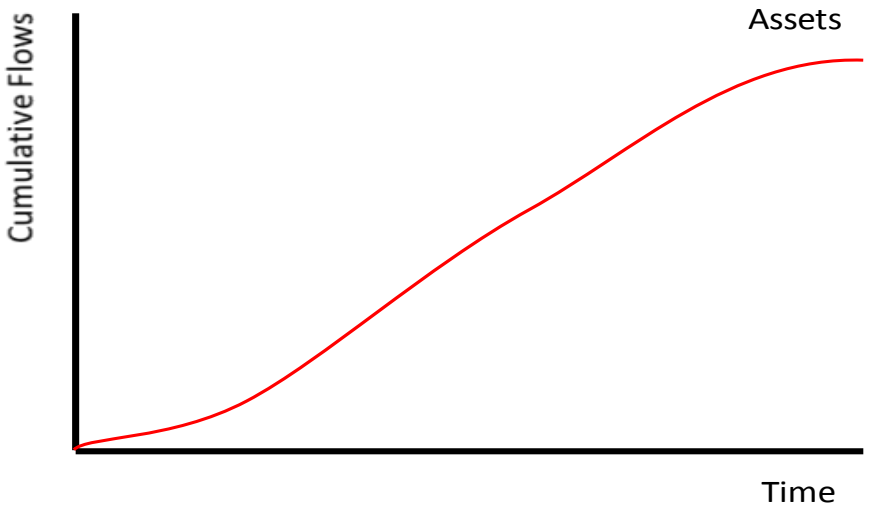

Figure 2

2. Show the known asset-liability maturity gap of the bank on this basis. See Figure 3 below.

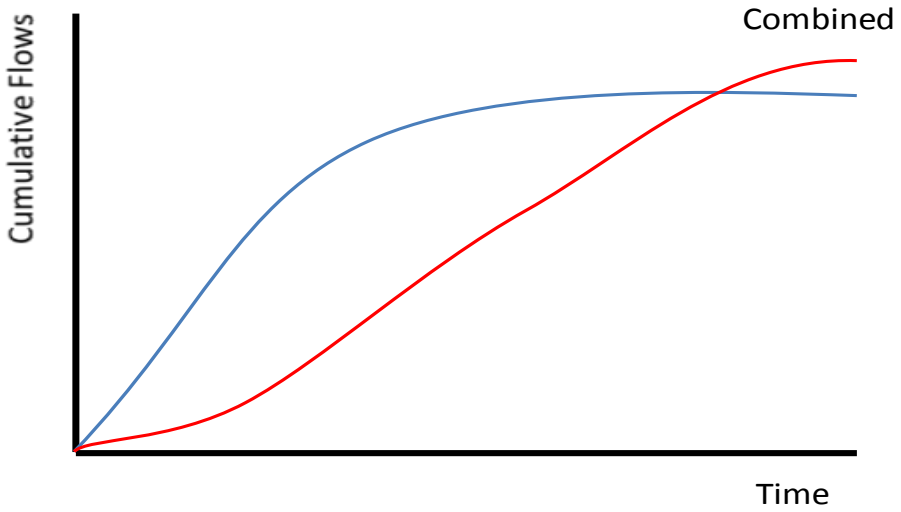

Figure 3

3. Calculate the cost to close the know asset-liability maturity gap using both:

    a) private sector repo markets, and

    b) central bank discount window facilities.

See Figure 4 below.

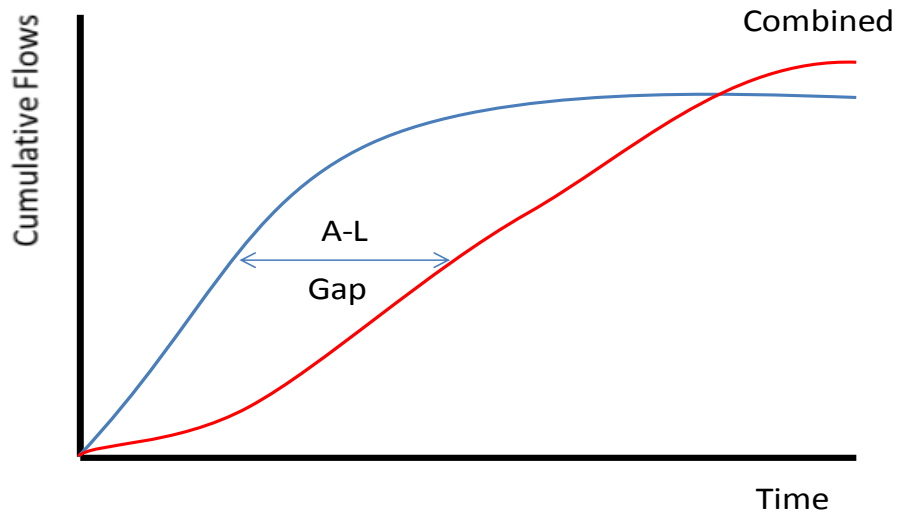

Figure 4

The cost and time frame to achieve liquidity from each asset class will generate a time that equity or collateral (they amount to the same) is exhausted. This is the "survival time" based on the prevailing cost of liquidity for the known asset-liability maturity gap. For assets such as loan pools for which a secondary market does not readily exist, this process includes the time and cost of selling or securitising and then either selling or repoing them (as explained in 1(a) above). For other highly specific illiquid assets (such as real estate, non-core business lines and long term investment

positions) the time to sell and the discount assumed must be calculated based off recent market transactions. This is therefore is an important measure of both structural liquidity and solvency.

4. Finally by adding behaviouralisation assumptions to each asset and liability type, step 2 above can be varied to recalculate the "survival time" from step 3, enabling sensitivity analysis to be performed independently by regulators, bank management and investors based on a range of their own behaviouralisation assumptions. See Figure 5 for behaviouralising assets, Figure 6 for behaviouralising liabilities and Figure 7 for the revised effect of closing the gap after full behaviouralisation assumptions have been included.

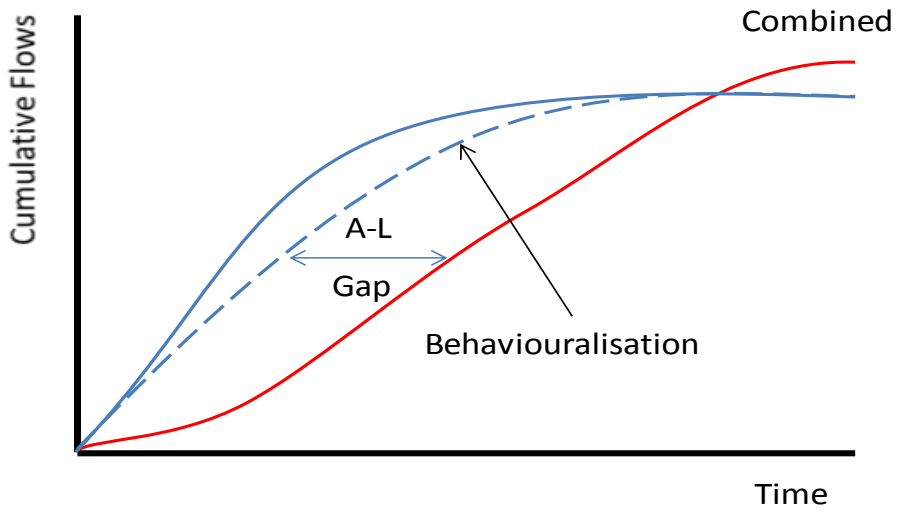

Figure 5

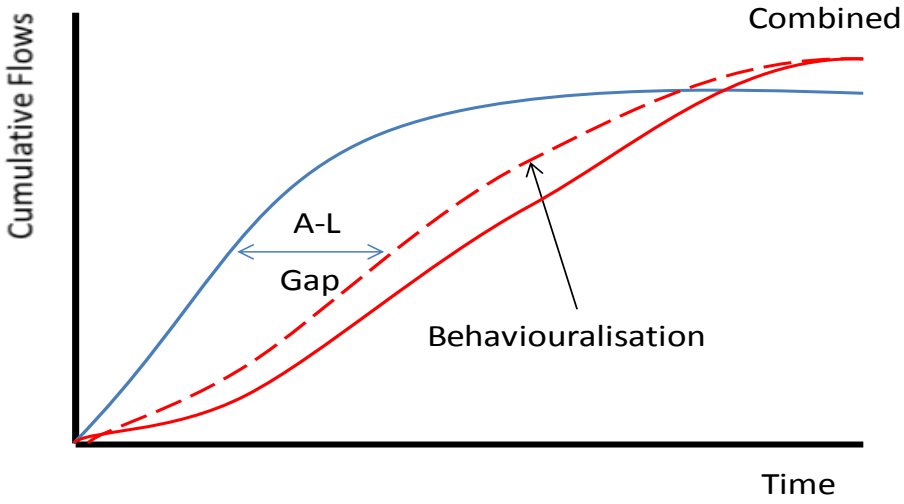

Figure 6

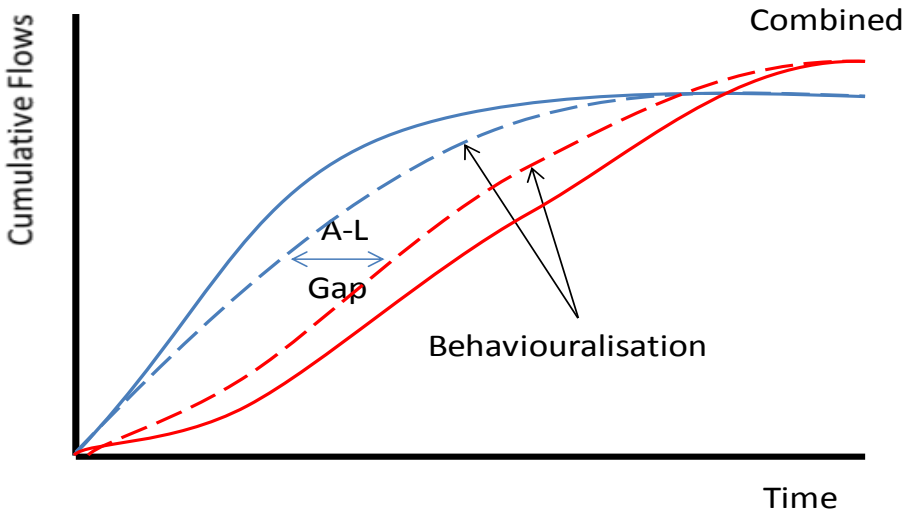

Figure 7

Why do we propose this approach?

Known maturities of liabilities are the only real measure of the stability of the liability side of the balance sheet.

The repo markets provide current cost of liquidity for each asset class enabling true "cost to close the asset-liability gap" analysis to be undertaken (step 3 above). Central bank discount window facilities provide worst case cost to close and are therefore an important backstop measure.

This approach allows market participants to analyse banks' liquidity positions using known cash flows and then to add their own behaviouralisation assumptions as an alternative to standard regulatory assumptions. We envisage a transparency standard set by Basel that would require each bank to provide this data in a format manageable by investors. This would permit a continuum of risk factors by maturity to be applied, rather than the stair-step approach used at present. This process alone would provide significant increase in transparency for regulators, investors and depositors in all banks.

We would be pleased to work with the BCBS to develop the technical standards for implementation of this improved alternative approach.

Summary

The combination of a short-term peak measure of need for liquidity (in the form of the LCR) and a structural measure of the asset-liability maturity gap, that enables calculation of the cost to close that gap, are powerful tools. Both benefit from standard assumptions about behaviouralisation, but the BCBS approach reduces transparency by applying its (quite simple) assumptions as a first step, when it is more powerful to apply a range of assumptions (with a continuum of both time and cost) at the end of the analysis as this enables both a meaningful cost to close and sensitivity analysis.

Thank you for allowing us the opportunity to comment on the NSFR.