Basel III Framework on Liquidity Standards – Net Stable Funding Ratio (NSFR) – Final Guidelines

What this means for banks in India

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Against the backdrop of the global financial crisis that started in 2007, the Basel Committee on Banking Supervision (BCBS) proposed certain reforms to strengthen global capital and liquidity regulations with the objective of promoting a more resilient banking sector.

Let's understand the impact of this crisis on the global banking ecosystem in order to grasp the events that led to the introduction of the NSFR guidelines.

The 2007–08 global financial crisis exposed shortcomings in the management of market liquidity and funding risk in individual banks. Banks' asset and liability structures proved to be highly vulnerable to market shocks, investor runs and breakdowns in wholesale funding markets. This, in part, reflected banks' increasing reliance on short-term wholesale funding as a means to grow their balance sheets over the past 20 years.

The global financial crisis which led to the failure of large financial institutions exposed the havoc liquidity risk can wreak. The widely used practice of funding long-term investments with short-term funding sounded profitable in normal-to-good market circumstances. However, over-reliance on short-term funding requires continuous efforts to refine investments and the quality of collateral posted against raised funding. Under stressed market circumstances, short-term funding opportunities become especially volatile.

For a financial institution faced with sudden depreciation in asset quality and market confidence, two challenges will typically emerge:

- The cost of short-term funding will spike due to the increasing requirement for collateral to be posted under stressed market conditions.
- Long-term assets, which are still otherwise profitable, become non-viable due to sharp increases in short-term funding costs.

It goes without saying that under such stressed circumstances, the chances of new long-term funding become remote. Hitting the financial world in both depth and breadth, the crisis also revealed the dangers of mixing terms for funding and investments. The higher margin earned by funding short term and investing long term is not really a risk-free arbitrage.

There were two hard lessons learnt in 2008 in terms of liquidity risk:

- The assets held should be liquid and of good quality. Assets with deep market liquidity are more likely to be sold at any time without much discounting or value depreciation as and when funding starts drying up.
- Higher earning long-term assets should have stable long-term funding sources, as opposed to leveraging only short-term and unsecured funding sources.

Banks relied less on their own capital raising efforts and traditional monetary liabilities, such as insured and non-insured deposits, while at the same time they invested more of these borrowed funds in assets that proved to be less liquid. In response, regulators have stepped up their efforts to rein in banks' excess liquidity risk exposures.

Below is a timeline of events that lead to the introduction of NSFR:

December 2010

The BCBS released draft guidelines on NSFR.

January 2014

The BCBS published a consultative document on NSFR. The committee underwent a rigorous process of reviewing the standard and its implications on the functioning of the financial markets and the economy, concluding with a consultative document on NSFR in January 2014.

October 2014

BCBS released a final version of NSFR. Following a rigorous review to address any unintended consequences for financial market functioning in the economy and on improving its design with respect to several key issues, notably (i) the impact on retail business activities; (ii) the treatment of short-term matched funding of assets and liabilities; and (iii) analysis of sub-one year buckets for both assets and liabilities, the BCBS published the final rules on NSFR in October 2014.

May 2015

The Reserve Bank of India (RBI) released draft guidelines on NSFR under the Basel III Framework on liquidity standards for banks and requested comments on the same.

May 2018

The RBI released final guidelines on NSFR under the Basel III Framework, taking into account the Indian conditions.

Liquidity supervision was one of the key considerations behind the introduction of liquidity coverage ratio (LCR) and NSFR, as part of the Basel III Framework. Let's understand what both of these mean:

- LCR requires banks to hold sufficient high-quality liquid assets to cover their total net cash outflows over 30 days.
- NSFR will require the available amount of stable funding to exceed the required amount of stable funding for a one-year period of extended stress.

While the RBI introduced final guidelines on LCR in the year 2015, it gave banks a timeline to comply with the minimum required level of 100% for LCR till 1 January 2019. The RBI has now issued final guidelines[1] on NSFR and the date of implementation, as stated by the Regulator, would be notified in due course.

NSFR has primarily been introduced with an objective of establishing a minimum acceptable amount of stable funding based on the liquidity characteristics of an institution's assets and activities over a one-year period. A sustainable funding structure is intended to reduce the probability of erosion of a bank's liquidity position due to disruptions in a bank's regular sources of funding that would increase the risk of its failure and potentially lead to broader systemic stress. NSFR limits over-reliance on short-term wholesale funding, encourages better assessment of funding risk across all on and off balance sheet items.

What does NSFR mean?

As per the final guidelines, the Regulator has defined NSFR as the amount of available stable funding (ASF) relative to the amount of required stable funding (RSF).

1 https://rbi.org.in/Scripts/NotificationUser.aspx?Id=11278&Mode=0

The guidelines require banks to maintain the below ratio of NSFR at all times:

NSFR = ASF ≧ 100% RSF

(Refer to Appendix 1 for ASF and RSF components and factors.)

Further, the guidelines also define ASF as the portion of capital and liabilities expected to be reliable over the time horizon considered by NSFR, which extends to one year. The amount of RSF of a specific institution is a function of the liquidity characteristics and residual maturities of the various assets held by that institution as well as those of its off balance sheet exposures.

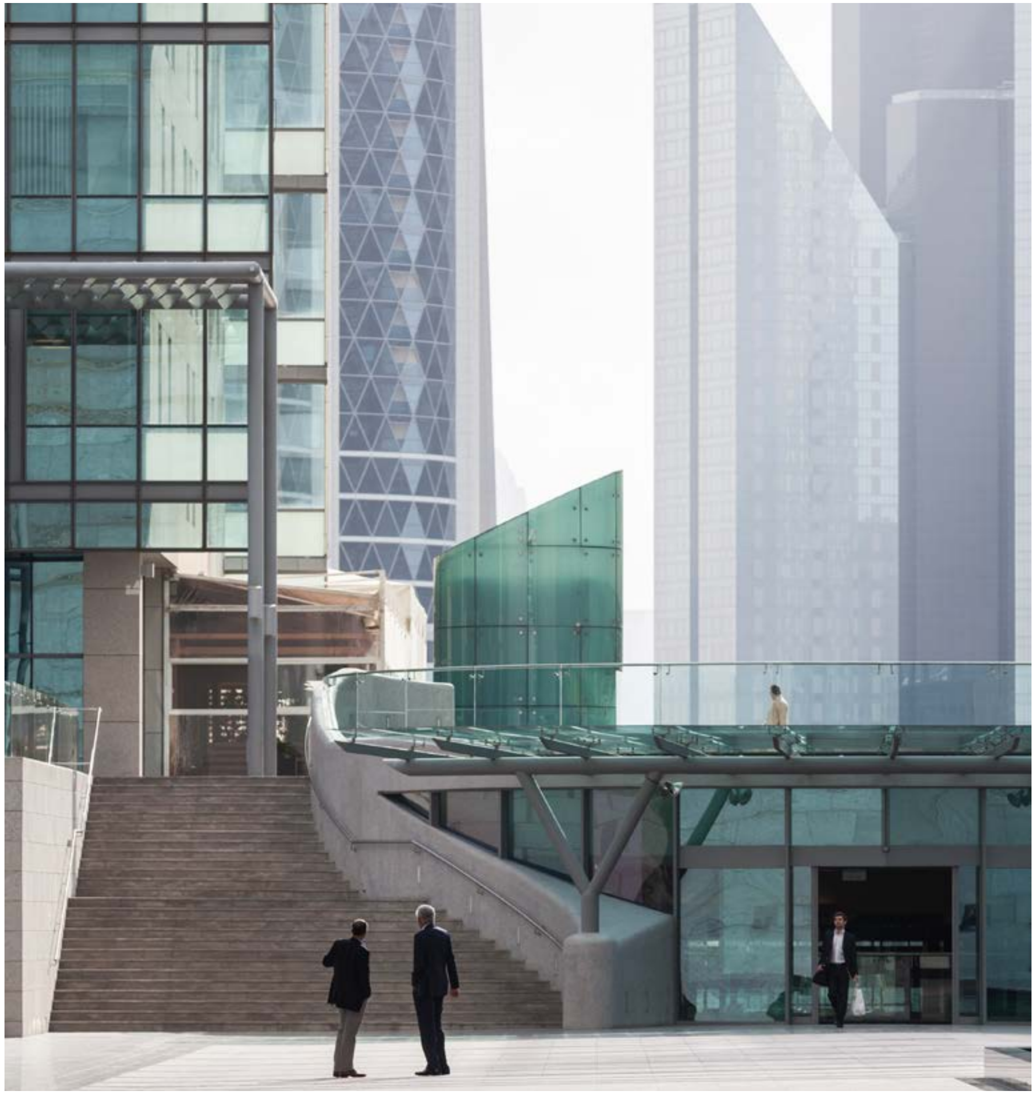
While NSFR should be equal to at least 100% on an ongoing basis, this would be supplemented by supervisory assessment of the stable funding and liquidity risk profile of a bank. On the basis of such assessment, the RBI may require an individual bank to adopt more stringent standards to reflect its funding risk profile and its compliance with the sound principles issued vide circular 'Liquidity Risk Management by Banks' dated 7 November 2012.

NSFR is designed to encourage and incentivise banks to use stable sources to fund their activities. It helps to reduce dependence on short-term wholesale funding during times of buoyant market liquidity and encourages better assessment of liquidity risk across all on and off balance sheet items. NSFR requires a minimum amount of stable sources of funding at a bank relative to the liquidity profiles of the assets, as well as the potential for contingent liquidity needs arising from off-balance sheet commitments over a one-year period.

The implications here would pertain to the type of current short-term markets available for banks to provide liquidity, the type of long-term markets needed, the cost of deposit and the impact on the profitability of banks.

Further, as banks go on increasing the risk weighted asset portfolio to meet the growing economy's credit requirements, they would need additional capital funds under Basel III. The important questions to be asked here are: Can individual banks access the capital market to raise the required capital funds? How do current ownership structures and valuations impact banks' capital raising proposals? Should the government retain majority ownership? How should the government capitalise public sector banks? What are the options before the government?

In the context of the Indian economy, growth and financial stability seem to be two conflicting goals. The Indian economy is transforming structurally and moving towards rapid growth, although it is also witnessing some seasonal down trends. The Indian economy is likely to see higher growth in the coming years, which will enhance the demand for credit. Further, the RBI and the government are continuously working on financial inclusion, aiming to bring several millions of the population under the ambit of the organised financial system. This will also enhance the population's credit requirements. What all this means is that banks need to maintain higher capital requirements as per Basel III at a time when credit demand is going to expand rapidly. The concern is that this will raise the cost of credit and hence militate against growth.



Overall, the final guidelines on NSFR would positively impact Indian banks' ability to withstand systemic stress and absorb shocks when there is a lack of liquidity and funding in the system. NSFR gives a punitive treatment to funding obtained from financial institutions and, going forward, this may impact the interconnectivity of banks/financial institutions, hence mitigating the risk of stress spreading from one bank to another and ending up with a full-blown crisis.

Indian banks would need to significantly invest in their IT infrastructure and processes to generate, monitor and analyse NSFR. With massive amounts of data and multiple metrics (apart from NSFR) and templates required to be populated, banks would look to harmonise their data flows and systems by creating central repositories of all data for the bank from which these metrics can be computed.

Banks will need to revisit their balance sheet management strategies, given the differential treatment of assets and liabilities according to the tenor, counterpart type, product type and liquidity. This may lead to banks cleaning up their balance sheets with more liquid assets and stable funding. The asset liability management (ALM) function would need to take into consideration the impact of its strategies on NSFR. Since NSFR rewards longer tenor funding profiles, this would impact the pricing of such funding in the market given the increase in demand. This can have a negative impact on the net interest income of the bank as the cost of funding will go up, given that longer-term borrowings are costlier as opposed to short-term borrowings.

NSFR gives higher weightage to funding received from retail and small businesses in terms of deposits, which may lead to banks aiming to increase the deposit base from these customers and rely less on short-term wholesale funding. Given the punitive treatment of longer-term assets, banks may be discouraged to lend for projects which require longer tenures of funding—for instance, infrastructure financing. This could impact the availability of funds for such businesses and eventually impact the economy.

The amount of ASF is calculated by first assigning the carrying value of an institution's capital and liabilities to one of five categories, as presented below. The amount assigned to each category is then multiplied by an ASF factor, and the total ASF is the sum of the weighted amounts. Carrying value represents the amount at which a liability or equity instrument is recorded before the application of any regulatory deductions, filters or other adjustments.

Sr. no.	Components of ASF category (liability categories)	ASF factor
(i)	• Total regulatory capital (excluding tier 2 instruments with residual maturity of less than one year) • Other capital instruments with effective residual maturity of one year or more • Other liabilities with effective residual maturity of one year or more	100%
(ii)	• Stable non-maturity (demand) deposits and term deposits with residual maturity of less than one year provided by retail and small business customers	95%
(iii)	• Less stable non-maturity deposits and term deposits with residual maturity of less than one year provided by retail and small business customers	90%
(iv)	• Funding with residual maturity of less than one year provided by non-financial corporate customers • Operational deposits • Funding with residual maturity of less than one year from sovereigns, public sector enterprises and multilateral and national development banks • Other funding with residual maturity between six months and less than one year not included in the above categories, including funding provided by central banks and financial institutions	50%
(v)	• All other liabilities and equity not included in the above categories, including liabilities without a stated maturity (with a specific treatment for deferred tax liabilities and minority interests) • NSFR derivative liabilities net of NSFR derivative assets if NSFR derivative liabilities are greater than NSFR derivative assets • 'Trade date' payables arising from purchases of financial instruments, foreign currencies and commodities	0%

Assets should be allocated to maturity buckets according to their contractual residual maturity, unless otherwise stated in the NSFR standard. However, this should take into account embedded optionality, such as put or call options, which may affect the actual maturity date of an institution's assets to the categories listed in the table below.

Sr. no.	Components of RSF category	RSF factor
(i)	• Coins and banknotes • Cash reserve ratio (CRR) including excess CRR • All claims on RBI with residual maturities of less than six months • 'Trade date' receivables arising from sales of financial instruments, foreign currencies and commodities	0%
(ii)	• Unencumbered level 1 assets, excluding coins, banknotes and CRR • Unencumbered statutory liquidity ratio (SLR) securities	5%
(iii)	• Unencumbered loans to financial institutions with residual maturities of less than six months, where the loan is secured against level 1 assets as defined in the LCR circular dated 9 June 2014 and updated from time to time, and where the bank has the ability to freely re-hypothecate the received collateral for the life of the loan	10%
(iv)	• All other 'standard' unencumbered loans to financial institutions with residual maturities of less than six months not included in the above categories • Unencumbered level 2A assets	15%
(v)	• Unencumbered level 2B assets • High-quality liquid assets (HQLA) encumbered for a period of six months or more and less than one year • 'Standard' loans to financial institutions and central banks with residual maturities between six months and less than one year • Deposits held at other financial institutions for operational purposes • All other assets not included in the above categories with residual maturity of less than one year, including 'standard' loans to non-financial corporate clients, to retail and small business customers, and 'standard' loans to sovereigns and PSEs	50%

Sr. no.	Components of RSF category	RSF factor
(vi)	• Unencumbered ‘standard’ residential mortgages with a residual maturity of one year or more and with the minimum risk weight permitted under the standardised approach • Other unencumbered ‘standard’ 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	65%
(vii)	• Cash, securities or other assets posted as initial margin for derivative contracts and cash or other assets provided to contribute to the default fund of a CCP • 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/SLR with a remaining maturity of one year or more and exchange-traded equities • Physical traded commodities, including gold	85%
(viii)	• All assets that are encumbered for a period of one year or more • NSFR derivative assets net of NSFR derivative liabilities if NSFR derivative assets are greater than NSFR derivative liabilities • 5% of derivative liabilities as calculated according to para 8.1 • All other assets not included in the above categories, including non-performing loans, loans to financial institutions with a residual maturity of one year or more, non-exchange-traded equities, fixed assets, items deducted from regulatory capital, retained interest, insurance assets, subsidiary interests and defaulted securities • All restructured ‘standard’ loans which attract higher risk weight and additional provision	100%

Sr. no.	Off balance sheet items which require stable funding	RSF factor
(i)	• Irrevocable and conditionally revocable credit and liquidity facilities to any client	5% of the currently undrawn portion
(ii)	Other contingent funding obligations, including products and instruments such as: • Unconditionally revocable credit and liquidity facilities • Non-contractual obligations such as: - potential requests for debt repurchases of the bank's own debt or that of related conduits, securities investment vehicles and other such financing facilities - structured products where customers anticipate ready marketability, such as adjustable rate notes and variable rate demand notes (VRDNs) - managed funds that are marketed with the objective of maintaining a stable value	5% of the currently undrawn portion
(iii)	• Trade finance-related obligations (including guarantees and letters of credit) • Guarantees and letters of credit unrelated to trade finance obligations	3% of the currently undrawn portion

Banks are required to meet NSFR requirements on an ongoing basis. They should also have the required systems in place for such calculation and monitoring. NSFR, at the end of each quarter (starting date will be announced in due course), should be reported to the RBI (Department of Banking Supervision, CO) in the prescribed format (BLR 7) within 15 days from the end of the quarter.

To promote the consistency and usability of disclosures related to NSFR and to enhance market discipline, banks will be required to publish their NSFRs according to a common template. Banks must publish this disclosure along with the publication of their financial statements (i.e. typically, quarterly or semi-annually), irrespective of whether the financial statements are audited. NSFR information must be calculated on a consolidated basis and presented in Indian rupees.

Banks must either include the disclosures required by this document in their published financial reports or, at a minimum, provide a direct and prominent link to the complete disclosure on their websites or in publicly available regulatory reports. Banks must also make available on their websites, or through publicly available regulatory reports, an archive of all templates relating to prior reporting periods. Irrespective of the location of the disclosure, the minimum disclosure requirements must be in the format required by this document.

Data must be presented as quarter-end observations. For banks reporting on a semi-annual basis, NSFR must be reported for each of the two preceding quarters. For banks reporting on an annual basis, NSFR must be reported for the preceding four quarters. Both unweighted and weighted values of NSFR components must be disclosed unless otherwise indicated. Weighted values are calculated as the values after ASF or RSF factors are applied.

In addition to the prescribed common template, banks should provide a sufficient qualitative discussion around NSFR to facilitate an understanding of the results and the accompanying data. For example, where significant to NSFR, banks could discuss the drivers of their NSFR results and the reasons for intra-period changes, as well as the changes over time.

Vivek Iyer
Partner
vivek.iyer@pwc.com
Mobile: +91 9167745318

Shiva Iyer
Director
shiva.iyer@pwc.com
Mobile: +91 9930169439

Vernon Dcosta
Director
vernon.dcosta@pwc.com
Mobile: +91 9920651117

Ramkumar Subramanian
Associate Director
ramkumar.subramanian@pwc.com
Mobile: +91 9004644029

Dhruv Khandelwal
Manager
dhruv.khandelwal@pwc.com
Mobile: +91 9820589399

Romit Salecha
Assistant Manager
romit.salecha@pwc.com
Mobile: +91 9833135588

Sharon Mathias
Experienced Consultant
sharon.mathias@pwc.com
Mobile: +91 9870170625

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