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The Chairman, Regional Rural Banks
The Managing Director, All State Cooperative Banks
The Managing Director/ Chief Executive Officer,
All District Central Cooperative Banks

Madam/Dear Sir,

Guidance Note on Liquidity Risk Management (LRM)

Liquidity management is crucial for the sustained viability of any banking institution, making it one of the foremost responsibilities of banks. The importance of liquidity extends beyond individual institutions, as a liquidity shortfall in one bank can have cascading effects throughout the entire financial system. Therefore, effective liquidity analysis requires bank management to continually assess their liquidity positions and anticipate funding needs under various scenarios, including adverse conditions.

2. The importance of implementing strong risk management practices has grown significantly due to increased supervisory expectations and heightened scrutiny from stakeholders, driven by the continuously evolving banking ecosystem. With the introduction of the Enhanced CAMELSC-based supervisory approach, which calls for a robust risk management framework in banks, a guidance note on Liquidity Risk Management (LRM) has been prepared to aid our Supervised Entities (SEs). This guidance provides clear insights into liquidity risk governance, measurement, monitoring, and reporting to NABARD on liquidity positions, as well as strategies for mitigating liquidity risks.

3. Effective liquidity risk management varies based on a bank's size, nature, and complexity but must include robust management information systems, assessment of net funding needs across various scenarios, diversification of funding sources, and comprehensive contingency planning. The Basel Committee on Banking Supervision (BCBS) outlines broad principles for sound liquidity risk management.

4. This guidance note also emphasizes the importance of managing liquidity to meet obligations promptly, minimizing risk through robust organisational and governance structures viz. the Board of Directors (BoD), Risk Management Committee (RMC), Asset-Liability Management Committee (ALCO), and ALM Support Group.

राष्ट्रीय कृषि और ग्रामीण विकास बैंक

National Bank for Agriculture and Rural Development

पर्यवेक्षण विभाग

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5. Guidance note elaborates that SEs should define their liquidity risk tolerance, funding strategies, and prudent limits, and establish a system for measuring, evaluating, and regularly reporting liquidity. Stress tests should be conducted under various hypothetical scenarios, and a formal contingency funding plan should be developed and maintained. The board or a designated committee should oversee and annually review these policies and practices.

6. It is elaborated in the guidance note that a Contingency Funding Plan (CFP) should be prepared by SEs which outlines strategies for addressing liquidity shortfalls during emergencies, detailing diverse funding measures. Banks should establish a reliable Management Information System (MIS) to provide timely liquidity insights to the board and ALCO, covering all forms of liquidity risk and providing detailed information during stress periods. Regular examination and assessment of the liquidity risk management process should align with regulatory directives and internal policies, identifying significant issues for prompt corrective action.

7. We shall be glad if you will place a copy of this circular before the next meeting of the Board of Directors of your bank to take a suitable decision on implementation of the guidelines in your bank. SEs are advised to put in place appropriate mechanism to implement the Liquidity Risk Management policies and the relevant frameworks as mentioned in the guidance note by **31 March 2025**.

8. Please acknowledge the receipt of this circular to our Regional Office in your State/ UT.

Yours faithfully

Sd/-

(Sudhir Kumar Roy)
Chief General Manager

Encl: Guidance note



**Guidance Note on
Liquidity Risk Management**

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1. Introduction

Liquidity refers to the ability to fund asset growth and meet both anticipated and unforeseen cash and collateral obligations promptly, while avoiding unacceptable losses. Effective liquidity management involves maintaining statutory requirements, meeting contractual and maturing cash outflows, and strategically deploying surplus cash. Liquidity risk, arising from the inability to meet obligations, can significantly impact a bank's financial health. Consequently, prudent liquidity risk management is vital for banks, as its implications extend beyond individual institutions as liquidity shortfall in one bank may trigger system-wide repercussions due to interconnectedness.

1.2. Liquidity risk for banks mainly manifests on account of the following:

Funding Liquidity Risk – Bank's inability to meet the expected and unexpected cash flows and collateral needs thus affecting either its daily operations or its financial condition.

Market Liquidity Risk – Bank's inability to quickly offset or eliminate a position at the prevailing market price due to insufficient market depth or disruptions.

1.3. The sophistication in liquidity risk management differs depending on a bank's size, nature, and operational complexity. Regardless of these factors, essential elements of effective liquidity management encompass a strong management information system, assessment of net funding needs across various scenarios, diversification of funding channels, and comprehensive contingency planning. In recognition of the need for banks to improve their liquidity risk management, the broad principles for sound liquidity risk management by banks as outlined by the Basel Committee on Banking Supervision (BCBS) are as under:

Fundamental principle for the management and supervision 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. Supervisors should assess the adequacy of both a bank's liquidity risk management framework and its liquidity position and should take prompt action if a bank is deficient in either area in order to protect depositors and to limit potential damage to the financial system.
Governance of liquidity risk management	
Principle 2	A bank should clearly articulate a liquidity risk tolerance that is appropriate for its business strategy 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.
Measurement and management of liquidity risk	
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 the 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	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.
Public disclosure	
Principle 13	A bank should publicly disclose information on a regular basis that enables market participants to make an informed judgment about the soundness of its liquidity risk management framework and liquidity position.

2. Governance Structure for managing liquidity

2.1. The organizational structure for liquidity risk management typically involves designated roles and responsibilities within a financial institution to effectively monitor, assess, and mitigate liquidity risks. This structure often includes a dedicated liquidity risk management team or department responsible for overseeing and implementing liquidity risk policies and strategies.

2.2. Organisational structure for liquidity risk management is given below:

- Board of Directors (BoD)
- Risk Management Committee (RMC)
- Asset-Liability Management Committee (ALCO)
- Asset Liability Management (ALM) Support Group

2.3. **Board of Directors (BoD)** bears overall responsibility for managing liquidity risk within the bank. Their role includes formulating the bank's strategy, policies, and procedures to effectively handle liquidity risk and aligning with the specified risk tolerance and limits outlined in paragraph 2.10. Additionally, the Board must thoroughly comprehend the nature of the bank's liquidity risk, including the liquidity risk profiles of its branches, subsidiaries, and other units. Regular reviews of relevant information are essential to monitor and mitigate the risk on continuing basis. Furthermore, the Board establishes executive-level authority and accountability for liquidity risk management, ensuring that management fulfils their duties in identifying, measuring, monitoring, and mitigating liquidity risk. Lastly, the Board actively participates in formulating and reviewing the bank's contingent funding plan.

2.4. The **Risk Management Committee (RMC)**, which directly reports to the Board, comprises the Chief Executive Officer (CEO)/Chairman and the heads responsible for credit, market, and operational risk management. Their primary responsibility lies in assessing the comprehensive risks encountered by the bank, including liquidity risk. Furthermore, the committee should consider the potential interplay between liquidity risk and other risks when addressing risk management matters.

2.5. The **Asset-Liability Management Committee (ALCO)** should be headed by CEO/ Chairman to ensure commitment and timely response from top management towards rapidly changing funding dynamics. The heads of Investment, Credit, Resource Management or Planning, Funds Management/Treasury may be members

of the Committee. Additionally, special invitees may also be part of ALCO if the committee deems fit; for instance, building up of MIS and related computerization requires the participation of the Head of the Information Technology Department in ALCO. The size of ALCO would depend on the size of the bank, business mix and organizational complexity.

2.6. Responsibilities of ALCO include:

- Ensuring adherence to the risk tolerance/limits set by the Board.
- Implementing the liquidity risk management strategy of the bank, aligning it with the bank's defined risk management objectives and risk tolerance.
- Deciding on desired maturity profile and mix of incremental assets and liabilities.
- Deciding on source and mix of liabilities or sale of assets. ALCO should be aware of the composition, characteristics and diversification of the bank's assets and funding sources and should regularly review the funding strategy in the light of any changes in the internal or external environments.
- Ensuring adequacy of cash flow projections and the assumptions used.
- Reviewing the stress test scenarios including the assumptions as well as the results of the stress tests and ensuring that a well-documented contingency funding plan is in place, which is reviewed periodically.
- Regularly reporting to the Board on the liquidity risk profile of the bank.

2.7 **ALM Support Group** should undertake the analysis, surveillance, and communication of the bank's liquidity risk profile to the ALCO. Additionally, they should be tasked with creating projections/ forecasts that demonstrate potential market condition variations and their impact on the bank's liquidity. They should also suggest necessary measures to preserve the bank's liquidity or comply with its internal thresholds.

2.8 **Liquidity Risk Management Policy, Strategies and Practices:** The initial step in liquidity management involves establishing a robust liquidity risk management policy. This policy should clearly define:

- Organization's tolerance for liquidity risk
- Outline funding strategies and prudent limits
- Establish a system for the measurement, evaluation, and regular reporting/reviewing of liquidity
- Framework for conducting stress tests, planning for liquidity under various hypothetical scenarios
- Creating a formal contingency funding plan
- Nature and regularity of management reports and mandate periodic reassessment of the assumptions used in liquidity forecasting

2.9 The Board or Committee of board members should oversee the establishment and approval of policies, strategies and procedures to manage liquidity risk, and review them at least annually.

2.10 **Liquidity Risk Tolerance:** Banks should set a clear liquidity risk tolerance, defined by their Board of Directors that aligns with their financial health and funding capacity. This helps manage liquidity effectively during normal and stressful times.

The risk tolerance should be explicit, comprehensive, and suited to the bank's complexity, business mix, and risk profile. It can be defined using maturity levels and various ratios and may include minimum survival times without Central Bank or Government help. The Board should review key assumptions periodically.

2.11 Bank should ensure that strategy for managing liquidity risk aligns with the nature, scale, and complexity of their activities. Considerations should include legal structures, key business lines, market diversity, product offerings, and regulatory requirements, etc. Additionally, strategies should identify primary funding sources to meet daily operating cash outflows and account for both expected and unexpected cash flow variations.

3. Management of Liquidity Risk

The banks should implement a sound process for identifying, measuring, monitoring and mitigating liquidity risk. Detailed process of management of risk is elaborated below:

3.1 Identification: Bank should analyse, define and recognize the liquidity risk associated with every significant on and off-balance sheet items that may affect the bank's sources and uses of funds. A bank's liquidity needs and sources of liquidity available to meet those needs depend significantly on the bank's business and product mix, balance sheet structure, cash flow profiles of its on and off-balance sheet items.

3.2 Measurement of liquidity risk: Measuring and managing liquidity are crucial for banks' effective operation. Liquidity measurement assesses a bank's cash inflows versus outflows and asset liquidity to identify potential funding shortfalls. Effective liquidity management ensures a bank can meet its liabilities, reducing the risk of adverse situations. A robust liquidity risk management framework should provide dynamic cash flow forecasts based on realistic assumptions about asset-liability base, deposit stability, cash flow nature, business nature, and regulatory requirements. This helps set tolerance levels and prudential limits. Banks should continuously monitor their liquidity position and anticipate future needs under various scenarios, using stock and flow approaches.

3.2.1 Flow Approach: The flow approach measurement involves a comprehensive tracking of cash flow mismatches. To measure and manage net funding requirements, banks should adopt the guidelines prescribed by the NABARD, which is the Statement of Structural Liquidity (SSL) under the Asset Liability Management (ALM) System. This statement helps measure cash flow mismatches at different time bands. Cash flows are categorised into these time bands based on the residual maturity of the cash flows or the projected future behaviour of assets, liabilities, and off-balance sheet items. The difference between cash inflows and outflows in each time-period serves as the starting point for assessing a bank's future liquidity surplus or deficit at various points in time. While the mismatches up-to one year would be relevant since these provide early warning signals of impending liquidity problems, the focus should be on the short-term mismatches viz., 1-14 days and 15-28 days. Banks, however, are expected to monitor their cumulative mismatches (running total) across all time buckets by establishing internal prudential limits with the approval of the Board / Management Committee. The mismatches (negative gap) for 1-14 days and 15-28 days in normal course may not exceed 20% of the cash outflows in each time bucket.

Regarding cash flow mismatches in the near-term buckets (up to 28 days), the bank's management should strive to minimize these mismatches.

3.2.2 Banks should assess the behavioural maturity profile of various components within on- and off-balance sheet items. The bank should lay out various “what if” scenarios both positive and negative liquidity swings, which can be due to both internal as well as external factors. This is based on assumptions and trend analysis supported by time series data of the bank. For e.g., the proportion of maturing assets and liabilities that the bank can either roll over or renew, behaviour of assets and liabilities without clearly specified maturity dates, as well as potential cash flows from off-balance sheet activities (such as drawdowns under loan commitments, contingent liabilities, and market-related transactions). To validate the assumptions used in this behavioural analysis, banks should conduct variance analysis at least once every six months and these assumptions should be refined to enhance the accuracy of predicting the future behaviour of on- and off-balance sheet items. The assumptions are crucial in the cash flow projection, hence they should be documented and made transparent to the Board/Risk Management Committee and shall be periodically reviewed.

3.2.3 **Stock approach:** Stock ratios serve as essential tools for monitoring liquidity risk at the individual bank level. Banks can establish internally defined limits, approved by their Board, to track these ratios. While industry averages provide reference points, banks have the flexibility to set their own limits based on their liquidity risk management capabilities. The industry average can be based on 4 or 5 years average for the banking system. Various ratios for illustrative purpose are given below:

Sl. No.	Ratio	Significance	Industry Average (in %)
1	$(\text{Volatile liabilities}^2 - \text{Temporary Assets}^3) / (\text{Earning Assets}^4 - \text{Temporary Assets})$	Measures the extent to which volatile money supports bank's basic earning assets. Since the numerator represents short-term, interest sensitive funds, a high and positive number implies some risk of illiquidity.	<40
2	Core deposits ⁵ /Total Assets	Measures the extent to which assets are funded through stable deposit base.	>50
3	$(\text{Loans} + \text{mandatory SLR} + \text{mandatory CRR} + \text{Fixed Assets}) / \text{Total Assets}$	Loans including mandatory cash reserves and statutory liquidity investments are least liquid and hence a high ratio signifies the degree of 'illiquidity' embedded in the balance sheet.	<80
4	$(\text{Loans} + \text{mandatory SLR} + \text{mandatory CRR} + \text{Fixed Assets}) / \text{Core Deposits}$	Measure the extent to which illiquid assets are financed out of core deposits.	<150
5	Temporary Assets/Total Assets	Measures the extent of available liquid assets. A higher ratio could impinge on the asset utilisation of banking system in terms of opportunity cost of holding liquidity.	<40
6	Temporary Assets/ Volatile Liabilities	Measures the cover of liquid investments relative to volatile liabilities. A ratio of less than 1 indicates the possibility of a liquidity problem.	>60
7	Volatile Liabilities/Total Assets	Measures the extent to which volatile liabilities fund the balance sheet.	<60

² **Volatile Liabilities:** (Deposits + borrowings and bills payable up to 1 year). Letters of credit – full outstanding. Component-wise CCF of other contingent credit and commitments. Swap funds (sell/ buy) up to one year. Current deposits (CA) and Savings deposits (SA) i.e. (CASA) deposits reported by the banks as payable within one year (as reported in structural liquidity statement) are included under volatile liabilities. Borrowings include from RBI, call, other institutions and refinance.

³ **Temporary assets** = Cash + Excess CRR balances with RBI + Balances with banks + Bills purchased/discounted up to 1 year + Investments up to one year + Swap funds (sell/ buy) up to one year.

⁴ **Earning Assets** = Total assets – (Fixed assets + Balances in current accounts with other banks + other assets excluding leasing + Intangible assets)

⁵ **Core deposits** = All deposits (including CASA) above 1 year (as reported in structural liquidity statement) + net worth

3.2.4 Bank may also use other measures/ ratios that may suit their size and nature. For example, ‘Liquid Assets/Deposits’ – which measures the extent of liquid assets available to take care of the Deposits outflows (benchmark >5%) or ‘Liquid Assets/Near Short Term Liabilities’ – which measures the extent of liquid assets available to take care of the outflows in the next 30 days (benchmark >100%) or ‘Long Term Liabilities/ Long Term Assets’ – which indicates that long term funding is mostly done out of long term resources (benchmark >70%), etc.

4. Monitoring

4.1 Discrepancies in the structural liquidity statement for up to a year are significant as they offer preliminary indications of potential liquidity issues. Nonetheless, the primary emphasis ought to be on the short-term discrepancies, specifically those within a 28-day period. The net cumulative negative mismatches in the structural liquidity statement during the next day, 2-7 days, 8-14 days and 15-28 days bucket should not exceed 5%, 10%, 15%, 20% of the cumulative cash outflows in the respective time buckets. With respect to other time buckets, senior management may decide on the prudential limits as per the size, nature and other factors affecting the liquidity of the banks. It is anticipated that banks will track their aggregate discrepancies across all periods, setting internal prudential thresholds subject to the endorsement of the Board or Risk Management Committee.

4.2 **Dynamic Liquidity Assessment:** In order to enable the banks to monitor their short-term liquidity on a dynamic basis over a time horizon spanning from 1-90 days, banks may estimate their short-term liquidity profiles based on business projections and other commitments for planning purposes. Projected cash flows can be based on business forecasts and assumptions. These projections consider factors such as business growth, expenses, capital expenditures, changes in working capital, regulatory requirements, market factors, pattern of deposits/loans, potential liquidity needs for meeting new loan demands, un-availed credit limits, devolvement of contingent liabilities, potential deposit losses, investment obligations, statutory obligations, etc. These projections and liquidity assessment shall be communicated to the Senior Management on fortnightly basis, which will allow management to monitor cash flow trends, identify potential issues, and make timely adjustments if needed. After the actual 90-day period, banks shall compare the projected cash flows with the actual cash flows that occurred to evaluate the accuracy of projections and assess whether the assumptions made during forecasting were reasonable. Adjustments can be made in the assumptions and the projections based on such comparison.

5. Off-balance Sheet Exposures and Contingent Liabilities

5.1 The banks should also examine the potential for substantial cash flows from its off-balance sheet activities. The contingent nature of the most of the off-balance sheet instruments adds to the complexity of managing the off-balance sheet cash flows, During stressful situation, off- balance sheet commitments can have significant drain on the liquidity.

5.2 Contingent liabilities, such as financial guarantees or Ongoing Litigation/ legal cases represent a potential cash outflow and the same is not dependent on the financial condition of the bank. The bank may be able to ascertain the normal level of the cash outflows under routine conditions and strive to improve inflows during the period of stress.

6. Collateral Position Management

6.1 A bank must ensure maintenance of sufficient collateral to meet both expected and unexpected borrowing needs, including potential margin adjustments over different timeframes. Additionally, the bank should consider operational and liquidity challenges that may necessitate the use of additional collateral. Effective systems and procedures should be in place to promptly calculate collateral positions, evaluating the value of currently pledged assets relative to required security and identifying unencumbered assets available for pledging.

7. Intra-day position management

7.1 A bank's failure to manage its intraday liquidity may affect its own payments and that of counterparties. The bank should have the capacity to measure the expected daily gross liquidity inflows and outflows, anticipate intraday timings of these flows, and forecast net funding shortfalls. Robust monitoring of the flow will help the bank to judge when to acquire additional intraday liquidity or restrict a particular outflow to meet a critical payment. It will also help the bank to allocate resources for its own needs and to those of its customers.

7.2 The bank should be prompt in arranging sufficient intraday funding to match its flows from diversified sources through central bank, interbank liability, money markets or other sources.

7.3 The bank should have a system in place to process the timing of the intra-day liquidity outflows. The system should be capable enough to match the inflow and outflow within the day to ensure that no payments fail. The bank should have preparedness to meet any unexpected disruptions to its intraday liquidity. A bank's intraday considerations should reflect in the stress testing and contingency funding plan.

8. Funding Strategy

8.1 A bank should regularly assess its ability to quickly raise funds from various sources. It must identify key factors affecting its fundraising capacity and closely

monitor them to ensure accurate estimates. As part of standard liquidity management, banks should avoid excessive concentration in any single funding source. While wholesale funding can be volatile, diversification is essential even within this category. Banks relying on wholesale funding should maintain a higher proportion of unencumbered, highly liquid assets compared to those relying more on retail funding. Funding diversification also involves limits placed on factors such as tenor, counterparty, secured versus unsecured market funding, instrument type, geographic market, and securitization.

8.2 Senior management should be aware of the composition, characteristic and diversification of the bank's assets and funding sources. Senior management should also ensure that market access is actively maintained and is monitored by the appropriate staff.

8.3 Bank needs to identify alternative sources of funding to strengthen its capacity to withstand any institution specific or market specific liquidity shocks. Depending on various factors of liquidity disruption, the potential funding sources of the bank can include – deposit growth, lengthening of the liability maturity, borrowing from central bank's marginal lending facilities, sale or repo of unencumbered high quality liquid assets, interbank lending, drawing down committed facilities, asset securitization, etc.

9. Stress testing

9.1 Stress testing is a risk management technique that assesses the stability of a bank and the overall financial system under severe but plausible scenarios. At the bank level, it helps a bank to quantify the impact of stress scenarios on its performance and assists senior management in making business strategy, risk management and capital management decisions.

9.2 Stress testing should empower banks to assess how stress scenarios affect their overall liquidity, irrespective of their organizational structure or the level of centralized liquidity management. The scope and frequency of these tests should align with the bank's size, liquidity risk exposures, and its significance within the financial system. The active participation of senior management is crucial for effective stress testing.

9.3 NABARD has issued guidelines for banks on stress testing vide circular no. EC no. 269/DoS-40/2023-24 (Ref. No. NB. HO. DoS. Pol/3049/J-1/ 2023-24) on 18 December 2023 which details about the objective, frequency, assumptions, etc. for better understanding of our Supervised entities.

9.4 Liquidity risk stress test involve multi-factor stress tests wherein stress on liquidity gap is assessed together with stress on funding sources. Whether a bank can be regarded as having sufficient liquidity depends to a great extent on its ability to meet obligations under a funding crisis. Therefore, in addition to conducting cash-flow projections to monitor net funding requirements under normal business conditions, banks should perform stress tests regularly by conducting projections based on "what if" scenarios on their liquidity positions to:

- identify sources of potential liquidity strain,

- ensure that current liquidity risk exposures remain in accordance with the
- established liquidity risk tolerance,
- analyse any possible impact of future liquidity stresses on cash flows, liquidity position, profitability, and solvency.

9.5 Banks can use additional assumptions than those given in NABARD's guidance note on stress testing. All the plausible scenarios, related assumptions and results thereof should be well documented. Senior management should review the stress testing scenarios, assumptions as well as the results of the stress tests in assessing and planning for related potential funding shortfall in the contingency planning.

10. Contingency Funding Plan (CFP)

10.1 A bank should have a formal Contingency Funding Plan (CFP) that clearly identifies strategies for addressing liquidity shortfalls in emergency situations. A CFP is a compilation of policies, procedures, and action plan for immediate response to the disruptions the bank may face regarding the funding in a timely manner and at a reasonable cost.

10.2 CFP should be commensurate with bank's complexity, risk profile, scope of operations, etc. CFP should elaborate on the diversified set of viable, readily available and deployable potential funding measures for meeting liquidity and making up cash flow shortfall during the disruptions. CFPs should incorporate explicit policies and procedures to empower the bank's management in making prompt, informed decisions, executing contingency measures efficiently, and facilitating effective communication for the plan's seamless implementation. This includes:

- Clearly defining roles and responsibilities, along with the authority to activate the CFP.
- Establishing a crisis team can enhance internal coordination and decision-making during liquidity crises.
- Providing the names and contact information of the team members responsible for executing the CFP, as well as their respective locations.
- Designating alternates for critical roles to ensure continuity in key functions.

10.3 Bank's CFP should reflect RBI's lending facilities and collateral requirements. It should also take into account potential sources of funds to meet critical payments on an intraday basis. CFP should always consider the impact of the stress testing results on the funding of the bank and should make necessary arrangements for any disruptions. CFP should also consider the steps to be meet critical payments on an intraday basis.

10.4 CFP should be reviewed and tested regularly to ensure their effectiveness and operational viability. Key aspects of testing include.

- Ensuring roles and responsibilities are appropriate and clearly understood.
- Confirming the contact information is up to date.
- Review of necessary documentation and procedures in place to execute the plans in short notice.
- Review of assumptions taken by the bank.

11. Management Information System

11.1 A bank ought to have a reliable Management Information System (MIS) designed to provide timely and proactive insights into the bank's liquidity status, to both the Board and ALCO, under regular circumstances as well as during challenging situations. It should encompass all forms of liquidity risk, including potential risks from new ventures and contingent situations, while also possessing the capability to offer more detailed and time-critical information during stress periods.

11.2 Reports concerning liquidity risk should provide sufficient granularity for management to assess the bank's responsiveness to changes in market dynamics, its financial health, and other pivotal risk elements. These reports might cover cash flow forecasts, disparities in cash flows, asset and funding concentrations, pivotal assumptions underpinning cash flow projections, funding accessibility, compliance with diverse regulatory and internal liquidity risk management thresholds, outcomes of stress tests, crucial early warning signals or risk metrics, the status of backup funding channels, or collateral usage, among other considerations.

12. Internal checks and controls

12.1 The bank must establish suitable internal controls, systems, and procedures to guarantee compliance with liquidity risk management policies and procedures, as well as the effectiveness of liquidity risk management operations.

12.2 Management is responsible for ensuring that an impartial entity routinely examines and assesses the bank's liquidity risk management process components. These assessments should evaluate the extent to which the bank's liquidity risk management aligns with regulatory/supervisory directives and its internal policies. The independent review process should highlight significant issues warranting immediate attention, including instances of non-compliance with various guidelines/limits, for prompt corrective action consistent with the Board-approved policy.
