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Staying liquid by adopting ILAAP

pwc

Setting the context

Liquidity risk management has been an ongoing requirement in financial institutions. The implementation of regulatory capital management and an integrated business framework for holistic liquidity risk management has attracted considerable attention due to factors such as market conditions, volatile interest rates, and illiquidity in the finance sector – all of which directly impact a firm's asset liability management (ALM).

Over the last century, liquidity risk has had deep-rooted effects across financial markets, stressing the need for its integration with the supervisory risk management framework.

The internal liquidity adequacy assessment process (ILAAP) structure enables a firm's risk appetite framework to be well integrated into the risk management framework. ILAAP takes into consideration the risk appetite of a bank at the time of setting up the risk profile and aims to be a part of the firm's operational processes. Starting right from business decision making, ILAAP is an ongoing process that considers the complexity, business size, models, macroeconomic variables and risk components of the firm.

This paper introduces ILAAP and the importance of its implementation within banks.

Evolution of liquidity framework

The global financial crisis in 2008 exposed fundamental problems in the way banks treated liquidity risk. Due to booming market conditions prior to the crisis, banks assumed that liquidity requirements could be met at little or no cost. Insufficient liquidity buffers, extreme maturity mismatches, large off-balance sheet commitments, sudden demands from bulk depositors or sticky deposits and deleveraged portfolios led to the downfall of most banks.

According to Sur and Bhattacharjee (2012), "Due to economic reasons the liability side of a bank's balance sheet (typically retail and wholesale deposits, money market instruments and debt) is more liquid and short term than the asset side. Long term illiquid holdings provide higher yields than short term liquid holdings. While the absolute difference between long term and short term rates is a direct function of the nature of the interest rate yield curve, the absolute difference between maturities of long and short term holdings can be taken to be a direct indicative of the change in the market value of the bank to falling interest rates."[1]

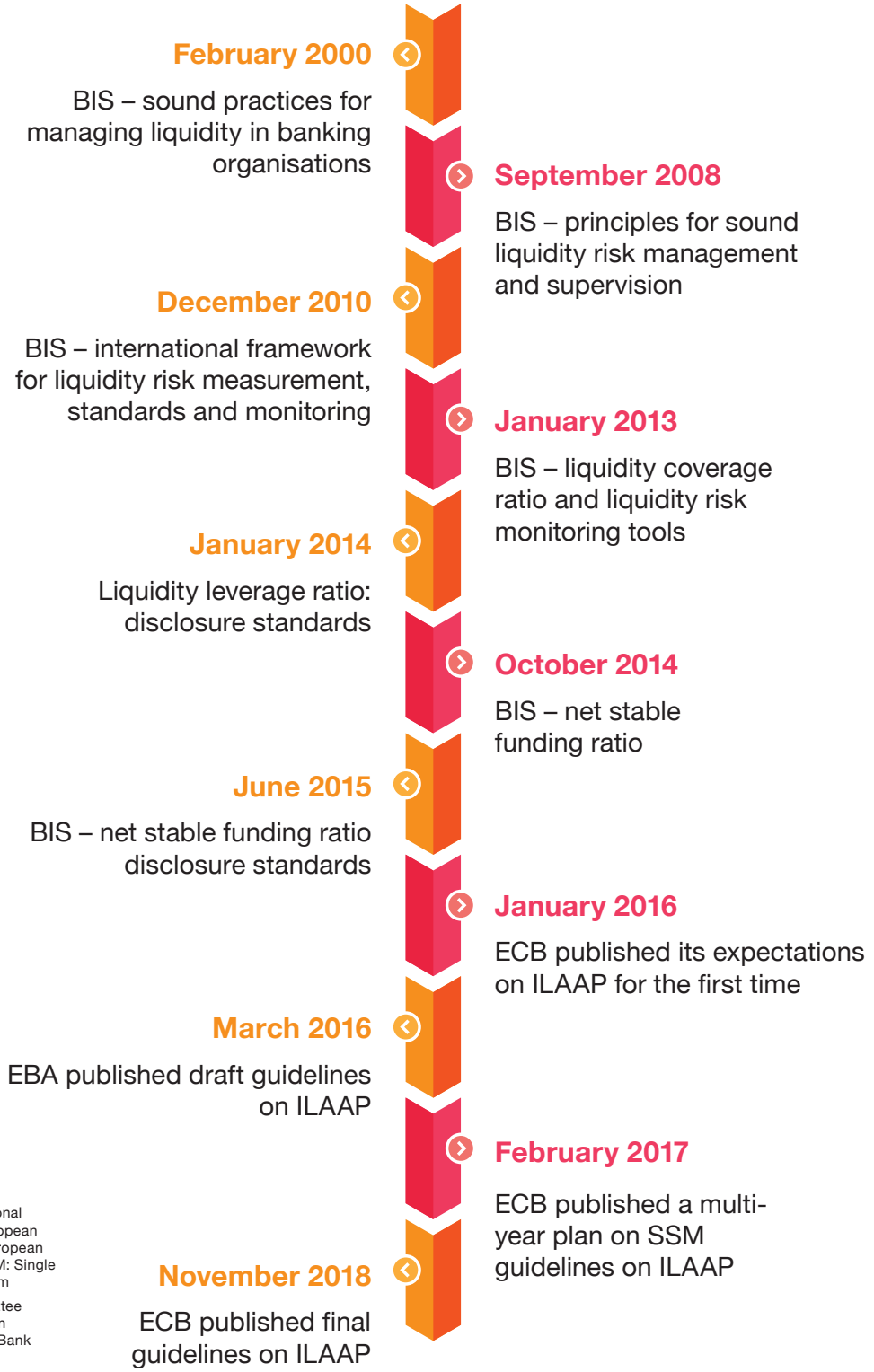
The effect of market fluctuations on banks' balance sheets prompted the inclusion of two liquidity ratios – the liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) –under Basel III to ensure an adequate quantity of high-quality liquid assets (HQLA) and stable funding. Banks also had in place additional liquidity buffers in the form of statutory liquidity ratio (SLR) measures, wherein they invested in government securities. Issues like bank refinancing and capital requirements under Pillar 2 of Basel III increased the spotlight on liquidity.

The roots of the ILAAP guidelines can be traced to the sound practices issued by Basel for managing liquidity risk. After the 2008 crisis, the committee expanded the guidance, bringing under its umbrella the following range of parameters to underpin the principles on liquidity risk:

- governance and liquidity risk tolerance to ensure integration and consistency in the liquidity risk framework
- mapping of liquidity profiles to include aspects like balance sheet profile, behavioural variables, contractual mismatches, long- and short-term advances, and funding gaps
- contingency fund planning, stress testing and public disclosures with greater emphasis on funding liquidity risk
- implementation of traditional approaches like financial ratios with forward-looking approaches like cash flow projections, behavioural analysis and setting up of liquidity buffers using concentration measures and maturity assessment to provide comprehensive insights into the liquidity position of the institution.

1. *Sur, K. & Bhattacharjee, K. (2012). Managing illiquid assets: Perspectives and challenges. In Verma Savita, Vijay Krishnaswamy & Eric Takigawa (Eds.), Managing illiquid assets: Perspectives and challenges. Risk Books.*

Progression of liquidity risk regulations



BIS: Bank for International Settlements, ECB: European Central Bank, EBA: European Banking Authority, SSM: Single Supervisory Mechanism

Source: Basel Committee on Banking Supervision and European Central Bank publications

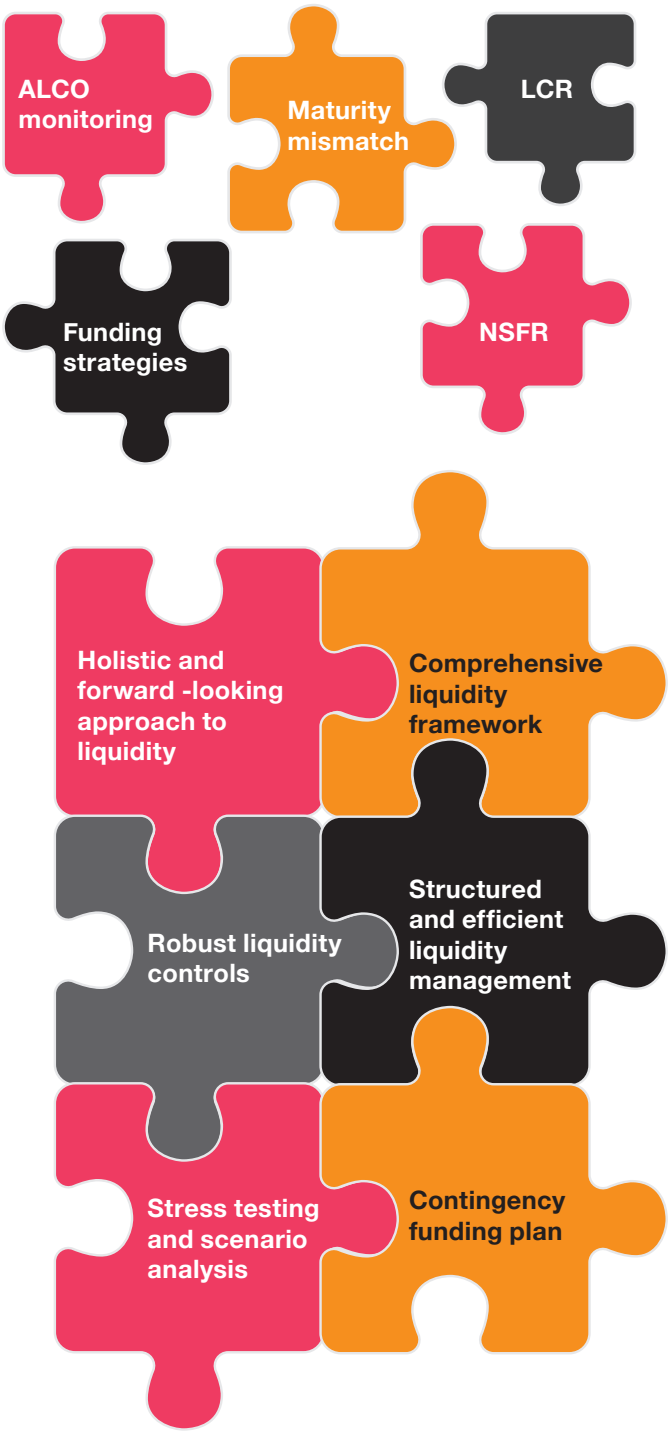
Core of the ILAAP framework

ILAAP is an effective framework for liquidity risk management from both the economic and normative perspectives. It facilitates interplay between the determination of adequate liquidity requirements in both the baseline and adverse scenarios as well as compliance with regulatory and prudential requirements.

Although individual components of ILAAP have been implemented by banks for a long time, they were not linked comprehensively.

ILAAP considers both external and internal constraints while measuring liquidity requirements in terms of market expectations, business models and capital constraints, allowing management more flexibility in decision making. This is what primarily differentiates ILAAP from previous regulatory guidelines which took a more ex post facto approach in dealing with liquidity.

ILAAP – an integrated approach



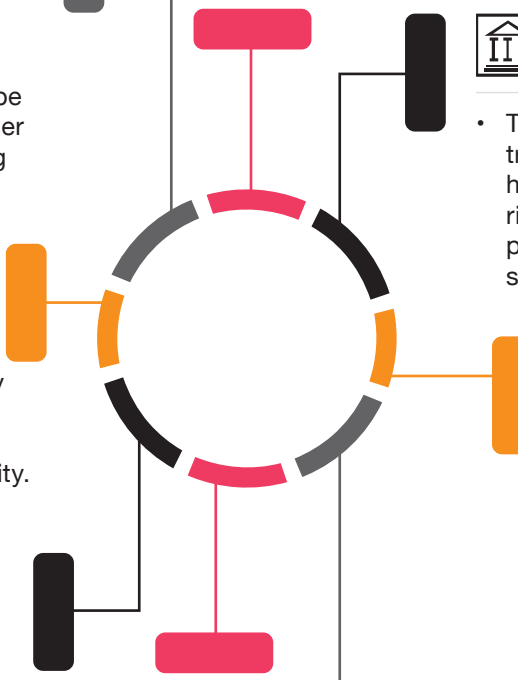
ALCO: Asset-liability committee

What are the integral elements of ILAAP?

The aim of introducing ILAAP in a bank's governance structure is to ensure a comprehensive and robust liquidity risk management system. It forms the basis of the internal assessment mechanism, which helps in understanding the appropriate level of liquidity that should be maintained both in qualitative and quantitative terms.

Elements	Description
Liquidity and funding risk management	• Implementation of monitoring tools like limit setting and early warning indicators with risk tolerance • Understanding risk-reward trade-off, to ensure self-reliance and independence of banks
Funding strategy	• Setting up funding strategies in line with the bank's risk appetite • Ensuring diversity in sources of funding and monitoring fundraising capacity on a regular basis
Strategy on liquidity cushions	• Maintenance of a buffer of high-quality liquid assets • Setting up a cushion of liquid assets for stress conditions based on their risk profile, transparency and acceptability as collateral
Cost benefit allocation mechanism/fund transfer pricing	• Product pricing to be carried out based on liquidity costs, benefits and risks • Aligning of internal fund pricing strategy with the organisation's goals to include comprehensive pricing policies for new product approval processing
Intraday liquidity risk management	• Timely assessment of cash inflows and outflows to monitor intraday liquidity positions
Group liquidity	• Managing the group liquidity and funding position considering global and regional economic stress conditions • Efficiency in planning and forecasting using a strong and comprehensive governance framework with robust liquidity risk management
Liquidity stress testing	• Identifying bank-specific stress scenarios with system-wide position of liquidity to obtain clarity on the integrated liquidity position • Utilising behavioural assumptions, scenarios, stress-testing processes and implementing them in the liquidity contingency funding plan
Liquidity contingency plan	• Implementing a formal liquidity contingency plan to address liquidity shortfalls in emergency situations • Assessing the bank's ability to liquidate assets in stressed market conditions and evaluating the impact on the bank's reputation

How could ILAAP mitigate liquidity challenges in the organisation?



Fund sourcing

- A robust annual funding plan, mapped to the bank's funding requirement and business and risk strategies, would help in the creation of a diversified funding base based on the maturity, type, geography, product, security and marketplace.

Identification and measurement of liquidity risk factors

- A comprehensive liquidity risk identification framework needs to be developed. Tools to measure and monitor liquidity risk factors should be sophisticated yet user-friendly in order to incorporate ILAAP elements along with individual liquidity risk metrics.

Cost-benefit allocation and business model assessment

- The presence of an appropriate fund transfer pricing mechanism would help in assessing inherent liquidity risk, stability of the funding plan, and performance evaluation and resource sourcing of different business verticals.

Reporting and dashboarding

- The presence of a heat map displaying the likelihood and severity of occurrence of relevant risk events would aid sensitivity and scenario analysis of factors that impact liquidity.

Liquidity position consolidation and cushioning

- Developing ILAAP would help track the level of HQLA given regulatory and internal requirements.
- A robust monitoring mechanism and internal limits would also help ensure adequate liquidity.

Data and infrastructure

- The presence of a structured RDBMS would enable the development of a centralised repository.
- This would enable robust processing of internal and market behavioural data to support institutional liquidity risk management.

Stress testing

- Stress-testing scenarios pertaining to liquidity need to be developed.
- With the help of a developed RDBMS, a stress-testing desk would enable carrying out of a range of severe but plausible single and combined stress scenarios.

CFP and counterbalancing capacity

- A strong CFP would ensure protection against liquidity crises through early warning indicators.
- This, coupled with a resolution and recovery plan, would help the institution gauge any impending stresses in a timely manner.

RDBMS: Risk Database Management System
CFP: Contingency funding plan

Liquidity risk is a new and niche area, and the knowledge resources available about this area are scarce. Over the years, financial institutions around the globe have invested considerably in business model assessment to understand the impact of intrinsic and extrinsic liquidity risk.

There is an increased focus on developing sophisticated models for determining behavioural patterns of various products. As a foundation for sophisticated model development, segmentation analysis of product portfolio is required to identify key drivers for behaviour and model segmentation strategies. Non-maturity deposits (NMDs) comprise critical components of the liquidity framework and their behaviour varies depending on the size, scale and complexity of the portfolio. Deposit roll-overs and early withdrawal are always an issue with banks, as they depend on multiple macro factors which should be considered during the process of behavioural modelling. Early repayment of loans creates liquidity and prepayment risk for which the bank needs to have a robust model.

The complexity and criticality of data and absence of plausible stress scenarios, inadequate understanding of portfolio composition and behaviour, and risk professionals' inability to forecast liquidity requirements are concerns.

The integrated approach of ILAAP addresses these challenges, bringing all the components of liquidity risk assessment under a single umbrella with one primary reporting head. A streamlined process like ILAAP would not only enhance but also invigorate an institution's liquidity risk management structure once it is integrated with an institution's internal system. The value and benefits of this process would be reaped over time.

Why is ILAAP more relevant in the current economic environment?

Given the significant of the COVID-19 pandemic on the overall economic environment and liquidity, the need for an integrated liquidity risk management framework is heightened. As the pandemic has altered the expected cashflows of banks and financial institutions (FIs), their ability to manage and report their liquidity positions and funding capacity has been affected.

While banks and FIs are dealing with the significant economic impacts of COVID-19, it has become more difficult than ever to manage liquidity risk and regulatory reporting and ensure regulatory compliance.

Globally, regulators have come up with liquidity injections and relaxations. For example, the RBI has relaxed the LCR norm and deferred NSFR implementation. However, as the economy gradually moves towards recovery, the impact of credit risk will also translate into liquidity risk in the following manner:

1. Surviving borrowers will demand additional credit to resume full-scale operations and increase cash outflows.
2. Borrowers that fail to revive post the pandemic will subsequently default on their obligations, leading to a decrease in expected cash inflows.

As a result, the liquidity position of banks and FIs could be dealt a double blow. The above trend is likely to be experienced across the industry, which may lead to a systemic liquidity crunch.

Once the principles and components of ILAAP are deciphered and the challenges are understood, financial institutions need to evaluate their standing in terms of their liquidity and risk management processes.

While it is important to have an integrated liquidity risk management framework, it is also necessary to realise that every component of the framework drives ILAAP in different directions. For instance, a bank's funding strategies may deviate from its liquidity risk profiles, or its CFPs may not be adequately linked with its liquidity stress test outcomes.

Every financial firm would have in place internal processes addressing issues like funding strategy, funds transfer pricing, liquidity buffers, stress testing and contingency plans, albeit in isolation. All these components depend on data collected from different departments and are overseen by separate heads. ILAAP acts as the glue connecting this disjointed structure, assimilating these components under one primary reporting head. A streamlined process like ILAAP would not only enhance but also invigorate an institution's liquidity risk management structure once it is integrated with an institution's internal system.

The value quotient

1. Enhanced visibility and control on group-level and standalone liquidity
2. Optimal liquidity and funding strategies in line with business and risk objectives
3. Improved governance and processes pertaining to liquidity management
4. End-to-end liquidity risk management – from liquidity risk appetite, tolerance and profiles to liquidity risk metrics, forecasts, models and tools across the maturity ladder
5. Stimulated and robust monitoring and control mechanism
6. Liquidity risk profile and business unit performance-oriented funds transfer pricing to achieve the desired liquidity mix
7. Insightful and customised stress-testing dashboards with linkages to the firm's CFPs and recovery resolution plans (RRPs)

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