

# FSI Briefs

No 25

## Rethinking banks' liquidity requirements

Rodrigo Coelho and Fernando Restoy

May 2025

FSI Briefs are written by staff members of the Financial Stability Institute (FSI) of the Bank for International Settlements (BIS), sometimes in cooperation with other experts. They are short notes on regulatory and supervisory subjects of topical interest and are technical in character. The views expressed in them are those of their authors and not necessarily the views of the BIS or the Basel-based standard-setting bodies.

This publication is available on the BIS website ([www.bis.org](http://www.bis.org)). To contact the BIS Media and Public Relations team, please email [media@bis.org](mailto:media@bis.org). You can sign up for email alerts at [www.bis.org/emailalerts.htm](http://www.bis.org/emailalerts.htm).

© *Bank for International Settlements 2025. All rights reserved. Brief excerpts may be reproduced or translated provided the source is stated.*

ISSN 2708-1117 (online)  
ISBN 978-92-9259-856-3 (online)

# Rethinking banks' liquidity requirements<sup>1</sup>

## Highlights

- *The 2023 banking turmoil underscored the complementarity of self-insurance-oriented minimum liquidity requirements and central bank liquidity support in safeguarding financial stability.*
- *Despite their complementary nature, these two core components of the policy framework are often treated separately.*
- *This paper proposes a framework bridging both components, with the objective of providing a flexible approach to address extreme liquidity stress.*

## 1. Introduction

The banking turmoil of 2023 sparked an important public debate on how to improve the regulatory framework for banks' management of liquidity risk. The episode highlighted how the digitalisation of finance and the influence of social media have fundamentally amplified the severity and potentially the frequency of bank runs. At least two key avenues have been explored in this debate: (i) the potential refinement and strengthening of liquidity requirements, particularly the Liquidity Coverage Ratio (LCR); and (ii) ensuring operational readiness for accessing central banks' liquidity support during periods of stress.

To date, these two approaches have largely been pursued independently, with little consideration of their possible interactions. This is presumably because the current design of the LCR is driven by the notion of self-insurance. In particular, the LCR is built on the premise that banks should be able to withstand an adverse liquidity scenario with reserves or by monetising liquid assets in private markets. Moreover, while the LCR is calibrated to a stress scenario, it is not designed to shield banks from every conceivable liquidity shock.

However, in extreme scenarios banks may need to resort to central bank facilities. While this approach could, depending on the central bank's operational framework, carry a stigma effect, it may still be preferable in certain cases to large-scale sales of securities, particularly for assets measured at amortised cost. Selling such assets could result in capital losses, which might send adverse signals about the bank's financial health.

These considerations become especially relevant in the light of the ongoing debate on whether LCR requirements should be made more stringent to address more severe liquidity stress scenarios. If liquidity requirements are to be adjusted to account for such scenarios, it would be logical to consider all viable instruments banks might use to obtain liquidity. In particular, banks' ability to pledge eligible assets to central banks for collateralised lending could be factored into supervisory expectations. Ignoring this possibility could impose significant constraints on banks' asset composition, as the need to hold more liquid assets could eventually limit their capacity to lend.

Naturally, the severity of the liquidity stress scenario would influence banks' incentives to seek central bank funding. Additionally, the central bank eligibility criteria for assets used as collateral could

<sup>1</sup> Rodrigo Coelho (rodrigo.coelho@bis.org) and Fernando Restoy (fernando.restoy@bis.org), Bank for International Settlements. The authors are grateful to Rebeca Anguren, Mathias Drehmann, Victoria Saporta and Raihan Zamil for their helpful comments and to Anna Henzmann for administrative support.

vary, potentially becoming more flexible during emergency situations. Importantly, incorporating the availability of central bank lending into supervisory expectations should be conditional on the readiness with which banks can mobilise eligible assets to secure such funding. In this context, the prepositioning of eligible assets with central banks emerges as a potential complement to any effort to integrate collateral availability into supervisory expectations.

This paper examines the interaction between banks' liquidity requirements and central banks' liquidity support frameworks. Specifically, it proposes a possible formula for establishing supervisory expectations across different stress scenarios, taking into account the availability of central bank facilities. Within this framework, these two elements are conceptualised as complementary layers of defence against liquidity crises: liquidity requirements and banks' internal risk management function are the first line of defence, while central bank liquidity support serves as the second line of defence in extreme circumstances.

The remainder of the paper is structured as follows. Section 2 reviews the objectives and design of the LCR, drawing lessons from the 2023 turmoil regarding its definition and calibration. Section 3 explores the role of central bank lending facilities and analyses recent initiatives to strengthen these frameworks. Building on these discussions, Section 4 proposes a new framework that incorporates the availability of central bank lending into supervisory expectations. Section 5 concludes.

## 2. The role of the LCR

Liquidity requirements are a cornerstone of prudential regulation. By requiring banks to rely on stable funding sources and maintain robust stocks of liquid assets, these frameworks help to mitigate the risks inherent in liquidity and maturity transformation activities. Liquidity requirements also reduce the likelihood of banks resorting to drastic, potentially damaging procyclical measures to address liquidity shocks during periods of stress. Additionally, liquidity buffers provide both banks and supervisors with critical time to prepare for the orderly resolution of institutions that are no longer viable.

Among the regulatory instruments, the LCR has come under particular scrutiny in the light of recent banking turmoil.<sup>2</sup> It is designed to ensure that banks hold a sufficient stock of high-quality liquid assets (HQLA) to withstand a severe liquidity stress scenario. This scenario is characterised by the runoff of a portion of liabilities with maturities of less than 30 days. The assumed runoff rates for each type of liability are calibrated based on their perceived stability – for example, runoff rates are low for fully insured deposits but high for funding from other banks or corporates.

However, recent episodes have highlighted limitations in the current LCR calibration. In particular, the actual runoff rates observed during the 2023 turmoil significantly exceeded the assumptions underlying the LCR. For example, in a single day Silicon Valley Bank (SVB) experienced deposit outflows that were higher than what the LCR stress scenario assumes for an entire month.<sup>3</sup>

The definition of HQLA has also been the subject of debate. Current eligibility criteria do not differentiate between instruments based on their accounting treatment. For instance, debt instruments in the amortised cost category are treated the same as those in the fair value category when determining HQLA eligibility. Critics argue that amortised cost instruments are less readily available to cover liquidity outflows because their sale often requires the recognition of significant capital losses in both the profit and loss account and regulatory capital. This distinction raises questions about the practical availability of amortised cost assets during stress scenarios.

<sup>2</sup> See BCBS (2024) for a summary of the lessons learned on liquidity risk from the 2023 banking turmoil.

<sup>3</sup> SVB was not subject to the LCR requirement.

Against this backdrop, it is a natural for some to advocate for the strengthening of regulatory requirements. While this response is understandable, it is important to recognise the limits of what minimum regulatory requirements can achieve, as excessive stringency could impair banks' ability to perform their core intermediation functions. The case of SVB illustrates these challenges. The bank experienced deposit withdrawals amounting to 25% of its total deposits in a single day, with an additional 60% expected the following day. Arguably, if required to fully cover such extreme liquidity stress solely with liquid assets, most banks would be unable to continue to engage in meaningful commercial activity.

In more severe liquidity stress scenarios than those currently assumed in the LCR calibration, it is reasonable to expect that banks would seek central bank liquidity support, provided they met the eligibility conditions. In such cases, liquidity needs could be met using assets that, while not qualifying as HQLA, could still serve as collateral for central bank loans after the application of appropriate haircuts. This highlights the potential role of central bank liquidity facilities as a complement to self-insurance.

### 3. Central bank liquidity support

Central banks play a crucial role in mitigating the probability and impact of bank runs by acting as lenders of last resort to the banking system. However, the effectiveness of central bank liquidity support to solvent banks is predicated on the availability of acceptable collateral. For a typical commercial bank, runnable liabilities – such as uninsured deposits and short-term market funding – represent around 30–50% of total assets. This suggests that, even with significant haircuts applied to assets, banks generally could have sufficient collateral to secure the necessary loans from central banks during emergency situations.

Yet the process of pledging collateral to access central bank liquidity support is not without challenges. Banks must ensure that all relevant documentation for each pledged asset is in order, conduct thorough legal and operational due diligence, and provide accurate asset valuations. Central banks, in turn, must review these submissions, value these assets and apply appropriate haircuts. This process, particularly for non-traded assets, can be complex and time-consuming. However, in a severe liquidity stress scenario, where emergency loans may be urgently required, the process must be executed swiftly and efficiently.

To address these challenges, central banks need to implement measures to ensure that banks are operationally prepared and willing to use central bank facilities when necessary. At a minimum, authorities should require banks – especially systemically important ones – to have operational arrangements in place to pledge collateral for central bank liquidity support. These requirements could include regular testing and simulation exercises to ensure readiness.

To ensure the availability of sufficient collateral for emergency liquidity support, central banks could introduce prepositioning requirements. Prepositioning involves banks providing central banks with detailed information about their collateral assets, along with all necessary documentation to assess eligibility, transferability and valuation.<sup>4</sup> While many central banks already encourage some form of prepositioning, no major central bank currently mandates formal prepositioning requirements.<sup>5</sup>

Yet some proposals advocate for such measures. The most ambitious of these is the “pawnbroker for all seasons” approach, championed by Mervyn King and Paul Tucker.<sup>6</sup> This proposal would replace key elements of the current regulatory, supervisory and deposit insurance frameworks with a requirement for banks to preposition sufficient collateral with the central bank to fully back their runnable liabilities. These

<sup>4</sup> See Box 1 for further details.

<sup>5</sup> See Coelho et al (2024) for further details.

<sup>6</sup> See Tucker (2014) and King (2023).

liabilities would include all deposits and short-term market funding, with the collateral amount determined after applying conservative haircuts. A more moderate alternative is proposed by the Group of Thirty, which recommends calibrating prepositioning requirements based on a narrower set of liabilities, excluding insured deposits.<sup>7, 8</sup>

There are compelling arguments for considering some form of requirement or guidance related to prepositioning, particularly as a function of liabilities that are more likely to run during a crisis, such as uninsured deposits. If eligible assets for central bank liquidity support are to be included as part of banks' liquidity requirements or supervisory expectations, it may be necessary to stipulate that these assets must be prepositioned with the central bank to ensure they can be rapidly mobilised in times of need.

#### Box 1

### What is prepositioning?

Prepositioning refers to the preparatory process through which banks provide central banks with detailed information about potential collateral in advance of any need to borrow. This process ensures that the collateral is assessed for eligibility, valued and assigned appropriate haircuts before it is mobilised for central bank lending operations. By completing these steps ahead of time, prepositioning significantly expedites the provision of liquidity during periods of stress, particularly when non-traded assets are involved.

Prepositioning typically involves banks submitting detailed data about potential collateral, including necessary documentation and confirmations. This enables central banks to conduct due diligence, which includes verifying the legal and operational readiness of the collateral, assessing its quality and ensuring that the central bank can enforce its claim over the assets if necessary. Once this process is complete, the assets are considered "prepositioned". Importantly, prepositioned assets are not encumbered until they are actively used as collateral, allowing banks to retain flexibility in their asset management. When prepositioned assets are withdrawn, the corresponding borrowing limit is adjusted accordingly.

Current practices vary across central banks. For example, the Bank of England's prepositioning process for loans begins with an initial assessment, including an introductory call to review the proposed portfolio's eligibility. Banks then submit detailed loan-level data tapes and complete a due diligence questionnaire covering risk management and operational details. The Bank of England conducts on-site visits and mandates third-party audits to verify loan existence and compliance with eligibility criteria. A comprehensive legal review ensures the collateral can be legally transferred if needed. Once due diligence is complete, the central bank determines haircuts based on credit risk and other factors. Continuous monitoring ensures the assets remain eligible, and prepositioned assets can be swiftly mobilised with minimal administrative steps when needed, providing timely access to liquidity.

The European Central Bank (ECB) and the Federal Reserve adopt prepositioning practices that differ from the Bank of England's approach. The ECB operates a pooling arrangement where collateral, once deemed eligible, is pooled for use across all types of lending operations. While national central banks within the Eurosystem conduct ex ante checks, the process places more emphasis on ex post monitoring, such as periodic confirmations of loan eligibility and credit assessments. Similarly, the Federal Reserve relies on prepositioning arrangements like borrower-in-custody or third-party custody setups, with much of the due diligence automated and conducted after collateral has been prepositioned, including through periodic inspections.<sup>①</sup>

① See Coelho et al (2024) for further details about approaches to prepositioning in selected jurisdictions.

However, prepositioning requirements would need to account for the fact that collateral amounts are measured after applying conservative haircuts to accounting values. If binding, such requirements could constrain banks' ability to lend unless they simultaneously increase their reliance on stable market funding and capital. Such constraints could, in turn, affect banks' capacity to conduct traditional intermediation activities. Therefore, any prepositioning requirement or guidance should be carefully

<sup>7</sup> Group of Thirty (2024).

<sup>8</sup> Similarly, Barr (2024) advocates for the introduction of prepositioning requirements tied to uninsured deposits.

calibrated to strike a balance: ensuring sufficient collateral is available to support liquidity needs during crises, without undermining the sustainability of banks' core risk, liquidity and maturity transformation activities.

Efforts to enhance operational readiness to access central bank liquidity facilities are most effective when complemented by initiatives to reduce the stigma associated with central bank borrowing. For example, supervisors and regulators could articulate that central bank facilities are standard liquidity management tools, with no hierarchy over market-based sources of liquidity, and reflect this stance consistently in their public messaging and policy frameworks.

## 4. A formula to revise liquidity requirements

As discussed in previous sections, the policy debate has thus far dealt with two issues in parallel: the recalibration of banks' existing liquidity requirements and the strengthening of banks' operational readiness to access central bank liquidity support during stress situations. However, these two debates should be more interconnected. Specifically, there appears to be a tension between making the stress scenario underlying the calibration of the LCR more severe while simultaneously ignoring the possibility that banks could obtain liquidity from central banks in such adverse scenarios.

In moderate stress scenarios, it seems reasonable to rely on self-insurance and require banks to hold sufficient liquid assets (HQLA) to manage their needs without relying on central bank facilities. This is partly because the use of central bank liquidity support may carry a stigma. However, as the severity of the stress increases, the "anticipatory" stigma associated with central bank support becomes a less important consideration, while large-scale asset sales by banks could become even more destabilising for markets.<sup>9</sup>

Additionally, the criteria for asset eligibility under central bank liquidity facilities are generally less stringent than the HQLA requirements. For instance, non-tradable assets – such as bank loans – are often eligible as collateral for central bank lending. Central banks also tend to apply even more flexible criteria for emergency liquidity assistance (ELA) compared with their standing lending facilities.

This suggests a framework with three tiers of asset eligibility, corresponding to different levels of liquidity stress:

- Type 1 assets: HQLA, which banks are expected to hold to address moderate stress scenarios without relying on central bank facilities.
- Type 2 assets: Type 1 plus other assets that, after standard haircuts, could be used as collateral for central banks' standing lending facilities.
- Type 3 assets: Type 2 plus additional assets that, after conservative haircuts, could be used to collateralise emergency liquidity support in extreme stress scenarios.<sup>10</sup>

Supervisory expectations that factor in central bank support are likely to be jurisdiction-specific, reflecting the significant variations in central banks' operational frameworks across countries. In this context, given its flexibility, Pillar 2 emerges as a natural choice to enhance the effectiveness of banks' liquidity risk management. Additionally, Pillar 2 measures take into account bank-specific characteristics,

<sup>9</sup> Conceptually it is possible to distinguish between two types of stigmas: "anticipatory" stigma influences long-term business decisions towards using central bank facilities in the future. In contrast, "in-the-moment" stigma refers to banks' hesitation to use central bank facilities for immediate funding needs due to fear of negative reactions from depositors and liability holders. While the latter type of stigma may delay borrowing, it is unlikely to prevent it when no other options exist. For further discussion, see Schulhofer-Wohl (2024).

<sup>10</sup> Some jurisdictions publish the criteria and terms associated with ELA. See, for example, Bank of Canada (2025).

such as funding concentrations. Moreover, such measures could eventually account for the excessive reliance on amortised cost instruments to meet HQLA requirements.

Under this framework, the three tiers of asset eligibility could be implemented as a combination of a Pillar 1 requirement and Pillar 2 supervisory guidance. Specifically:

- LCR1: Pillar 1 minimum liquidity requirement consistent with the current LCR, in terms of both eligible assets and stress scenario.
- SLRa: Supplementary liquidity ratio under Pillar 2 designed as a reformulation of the LCR. SLRa is a bank-specific recommendation indicating the level of liquidity the supervisor expects banks to maintain to ensure they can cope with a stress scenario that is more severe than that assumed under LCR1. SLRa can be met with type 2 assets.
- SLRb: Supplementary liquidity ratio under Pillar 2 for extreme liquidity stress. This additional supervisory guidance builds on SLRa by further broadening the eligible assets (type 3) and adopting an even more severe stress scenario.

From an operational perspective, when computing SLRa and SLRb, the proposed framework would require that eligible non-tradable assets be prepositioned with the central bank to ensure their swift mobilisation in times of need. As such, if the stress scenario underpinning SLRb were to assume a run on all uninsured deposits and short-term funding, SLRb would closely align with the recommendations outlined in the Group of Thirty report.

In keeping with the principles of Pillar 2, authorities would have the discretion to implement SLRa, SLRb or both, depending on their specific needs and circumstances, including with regard to the characteristics of domestic frameworks for central bank liquidity support. Additionally, they would be responsible for calibrating the severity of the stress scenarios and determining the range of eligible assets for each supplementary ratio. These calibrations should align with the operational frameworks of central bank activities, including – where applicable – for emergency liquidity support.

## Numerical illustration of the proposal

To illustrate this proposal, consider two hypothetical banks. Bank A has a liability structure comparable with that of some global systemically important banks, while Bank B has a proportion of runnable liabilities similar to that of SVB prior to its failure. For the purposes of this example, the asset side of the balance sheet is assumed to be identical for both banks.

| Assets                        |    | Liabilities                | Bank A | Bank B |
|-------------------------------|----|----------------------------|--------|--------|
| HQLA (a)                      | 22 | Insured deposits (f)       | 30     | 8      |
| Other eligible securities (b) | 15 | Uninsured deposits (g)     | 30     | 74     |
| Mortgage loans (c)            | 8  | Short-term liabilities (h) | 20     | 6      |
| Other ELA-eligible loans (d)  | 25 | Long-term liabilities (i)  | 12     | 4      |
| Other assets (e)              | 30 | Equity (j)                 | 8      | 8      |

Additionally, assume that the relevant central bank accepts not only HQLA but also other securities and mortgage loans as collateral in its standing lending facilities. Moreover, the central bank allows the use of other types of loans as collateral for ELA. Haircuts range from 10% for HQLA to 50% for “other ELA-eligible loans”. For simplicity, runoff rates for SLRa and SLRb are assumed to be, respectively, two and three times those applicable to LCR1.<sup>①</sup> Accordingly, LCR1, SLRa and SLRb would be determined as follows:

$$LCR1 = \frac{(a) \times 90\%}{(f) \times 5\% + (g) \times 25\% + (h) \times 30\%}$$

$$SLRa = \frac{(a) \times 90\% + (b) \times 80\% + (c) \times 70\%}{(f) \times 10\% + (g) \times 50\% + (h) \times 60\%}$$

$$SLRb = \frac{(a) \times 90\% + (b) \times 80\% + (c) \times 70\% + (d) \times 50\%}{(f) \times 15\% + (g) \times 75\% + (h) \times 90\%}$$

| Liquidity ratios | Without prepositioning |            | With prepositioning |            |
|------------------|------------------------|------------|---------------------|------------|
|                  | Bank A (%)             | Bank B (%) | Bank A (%)          | Bank B (%) |
| LCR1             | 132                    | 96         | 132                 | 96         |
| SLRa             | 66                     | 48         | 125                 | 90         |
| SLRb             | 44                     | 32         | 111                 | 80         |

The results above suggest that meeting liquidity ratios based on significantly more stringent stress scenarios solely with HQLA would be challenging for most banks. At the same time, this simplified example illustrates that sound banks would be well positioned to comply with such supervisory expectations if they were to preposition non-HQLA, particularly in jurisdictions with broad collateral frameworks. In contrast, banks with a high volume of runnable liabilities would probably struggle to meet these expectations even with the aid of prepositioned assets.

<sup>①</sup> The composition of HQLA is assumed to result in an average haircut of 10% under the LCR standard. It is further assumed that the entire stock of deposits and short-term liabilities matures within the 30-calendar day period, while long-term liabilities are expected to mature beyond this time frame. The runoff rates applied to insured deposits, uninsured deposits and short-term liabilities are set at 5%, 25% and 30%, respectively. No inflow rates are assumed for “other eligible securities” or loans.

## 5. Conclusion

The 2023 banking turmoil highlighted the important and complementary roles of regulatory liquidity requirements and central bank liquidity support, especially in an era in which deposit outflows can occur at unprecedented speed. While regulatory frameworks like the LCR aim to ensure banks can withstand moderate stress scenarios through self-insurance, central bank facilities serve as a vital backstop in more severe or system-wide crises. However, the current policy framework treats these two dimensions independently, missing opportunities to enhance the overall resilience of the financial system through better integration.

This paper proposes a framework that bridges the gap between regulatory liquidity requirements and central bank support. By introducing a tiered approach to asset eligibility and incorporating central bank liquidity facilities, the proposed framework ensures that banks are prepared for stress scenarios of varying severity. Specifically, the addition of the Pillar 2 guidance, based on prepositioned, non-HQLA assets, promotes operational readiness and provides a more comprehensive and flexible response to extreme liquidity stress.

Finally, the proposed framework offers a pathway to recalibrate existing liquidity requirements without imposing an additional burden on sound banks. By leveraging central bank facilities as part of the solution, the case to increase the stringency of the LCR can be substantially weakened, thereby mitigating potential unintended consequences for banks' business models. This integrated approach ensures that the financial system remains resilient to severe liquidity shocks while supporting banks' ability to fulfil their critical role in the economy.

## References

Bank of Canada (2025): "[Emergency lending assistance](#)".

Barr, M (2024): "[Supporting market resilience and financial stability](#)", speech at the 2024 US Treasury Market Conference, Federal Reserve Bank of New York, New York, 26 September.

Basel Committee on Banking Supervision (BCBS) (2024): *[The 2023 banking turmoil and liquidity risk: a progress report](#)*, October.

Coelho, R, M Drehmann, D Murphy and R Walters (2024): "[Navigating liquidity stress: operational readiness for central bank support](#)", *FSI Insights on policy implementation*, no 64, December.

Group of Thirty (2024): *[Bank failures and contagion: lender of last resort, liquidity and risk management](#)*, January.

King, M (2023): "[We need a new approach to bank regulation](#)", *Financial Times*, 12 May.

Schulhofer-Wohl, S (2024): "[Anticipatory discount window stigma](#)", Federal Reserve Bank of Dallas, *Dallas Fed Economics*, 6 September.

Tucker, P (2014): "[The lender of last resort and modern central banking: principles and reconstruction](#)", *BIS Papers*, no 79, September.