

# Just in Time

## The Liquidity Coverage Ratio a Decade on *A Stocktake of the Literature*

July 2026



# Executive Summary

- The **Liquidity Coverage Ratio (LCR)**, introduced under Basel III, requires banks to hold enough high-quality liquid assets to withstand a 30-day stress scenario.
- A decade of research\* shows that LCR has **improved banks' short-term resilience** and **increased holdings of liquid assets**. However, it also introduced **potential reduction in lending** to the real economy and **possible increase in risk-taking** and shifts toward less regulated sectors.
- Overall, the LCR strengthens financial stability but comes with **costs and unresolved questions**, specifically regarding its impact on credit supply and its effectiveness during crises.

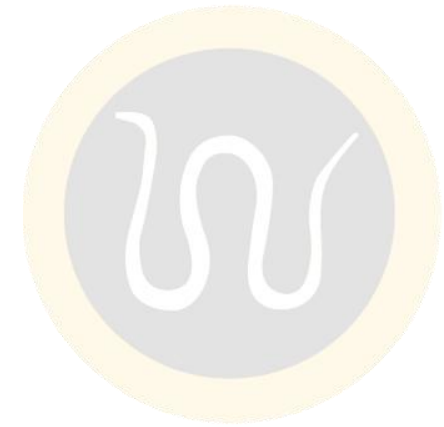
\* BIS, "The liquidity coverage ratio a decade on: a stocktake of the literature", January 2026



# At a Glance

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**Keywords:** Liquidity Risk, Basel III, HQLA, Liquidity Coverage Ratio, ESMA



# 01

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## Introduction



# Introduction

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The **Global Financial Crisis (GFC)** revealed that many banks were **highly exposed to liquidity risk** due to fragile funding structures and insufficient liquid buffers. In response, regulators introduced the **Liquidity Coverage Ratio (LCR)** to **strengthen short-term resilience**.

In response to the GFC, **Basel III** introduced the first global regulatory framework covering liquidity risk:

- **Liquidity Coverage Ratio (LCR)** – covering short-term resilience
- **Net Stable Funding Ratio (NSFR)** – long-term funding stability

Arising problems from GFC:

- **Insufficient** buffers of **liquid assets**
- Over-reliance on unstable funding sources
- Lack of a **standardized global liquidity framework**

The 2007-2009 **GFC** exposed severe liquidity weaknesses. Banks relied heavily **on short-term funding**. Sudden liquidity shortages led to **systemic instability**.

After ten years of research and practical implementation, the question is whether LCR has **effectively strengthened** financial stability **without** generating significant **unintended consequences**.

Main **objectives** of LCR:

- Ensure banks can survive a **30-day stress scenario**
- Require sufficient **High-Quality Liquid Assets (HQLA)**
- Promote **short-term resilience**

# 02

## Design and Goals

Design

Goals



# Design and Goals 1/2

## Design

The LCR is a regulatory requirement that ensures banks hold enough **high-quality liquid assets** to survive a **30-day stress scenario**, and its design reflects the need for a **simple** and **standardized** measure of **short-term liquidity risk**.

$$LCR = \frac{\text{Stock of HQLA}}{\text{Total net cash outflows over 30 days}} \geq 100\%$$

Only assets that demonstrably retain value and marketability in periods of strain qualify for the buffer

Projected net outflows are calculated under a 30-day stress scenario



The LCR is structured to ensure that banks **maintain a sufficient stock of high-quality liquid assets** to **withstand short-term liquidity stress**. It requires banks to hold liquid assets that can cover net cash outflows over a **30-day stress scenario**.



This design is based on a **standardized stress framework**, which assumes adverse conditions such as partial withdrawal of retail deposits, limited access to wholesale funding, and overall market disruption. Within this framework, assets are **categorized according to their liquidity**, with only high-quality and unencumbered assets eligible to be included as HQLA.



In parallel, expected cash outflows and inflows are calculated using **predefined rates** that reflect the stability of funding sources and the likelihood of inflows during stress. This approach ensures **consistency** and **comparability** across institutions.

# Design and Goals 2/2

## Goals

The LCR was introduced in response to the GFC to address **banks' vulnerability to liquidity shocks**, with the aim of ensuring they **hold sufficient liquid assets to withstand short-term stress**.

At the same time, the LCR seeks to **limit excessive reliance** on unstable funding sources and to encourage more **prudent liquidity risk management** practices within banks.

By promoting stronger liquidity positions, it also contributes to the **stability** of the financial system as a whole.



The primary goal of the LCR is to strengthen **banks' ability to withstand short-term liquidity shocks** by ensuring the availability of a **sufficient liquidity buffer**. In doing so, it aims to reduce the risk of bank failures driven by sudden funding pressures.

The LCR is intended to function not only as a binding regulatory requirement, but also as a **usable buffer in times of stress**, supporting banks in periods of financial tension. This leads to the consideration of whether the objectives of resilience, efficiency, and flexibility are effectively balanced in practice

# 03

## Insights from Research

Theoretical Work

Evidence after LCR Implementation



# Insights from Research 1/4

## Theoretical Work 1/2

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Theoretical literature focuses on social welfare implications and optimal regulatory design.



Most models identify "**fire-sale externalities**" as the **key friction** justifying the regulation



Banks tend to **over-rely on short-term debt and over-invest in illiquid assets** failing to internalize the systemic costs of a crisis



### Pigouvian Tax (Price-Based Approach)

Fee charged for a "Committed Liquidity Facility" at European Central Bank (ECB)



Does not occupy balance sheet space  
Does not generate "crowding out" of loans  
Optimal when banks have asymmetric productivity



Ineffective if banks have high risk incentives (gamble for resurrection)  
Requires perfect information on the part of the regulator

### LCR Requirement (Quantity-Based Approach)

Fixed quota of HQLA to be maintained on the balance sheet ex

Extremely effective for limiting "risk-shifting" incentives

It functions based solely on observable data without requiring perfect knowledge of investment technologies

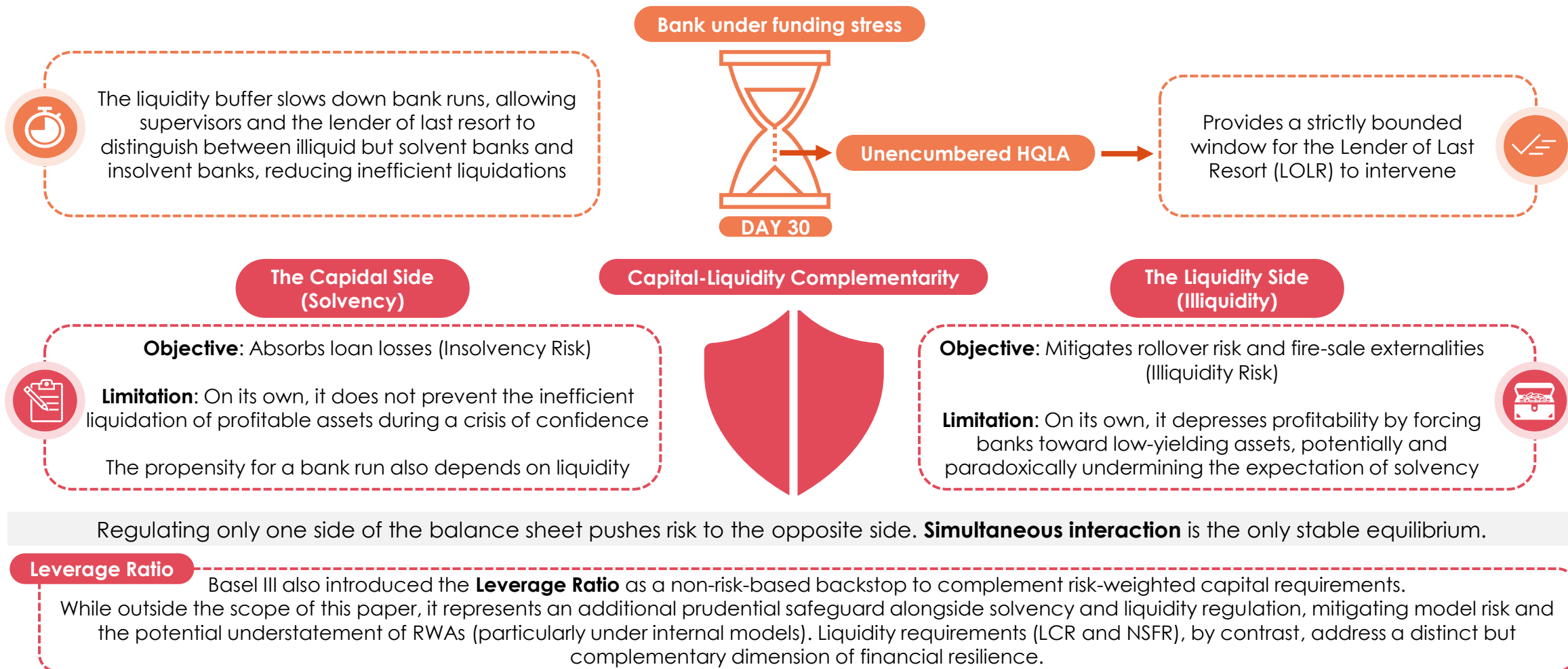
Physical obligation to hold HQLA squeezes profitability and space for productive credit

LCR is a robust "second-best" solution.

# Insights from Research 2/4

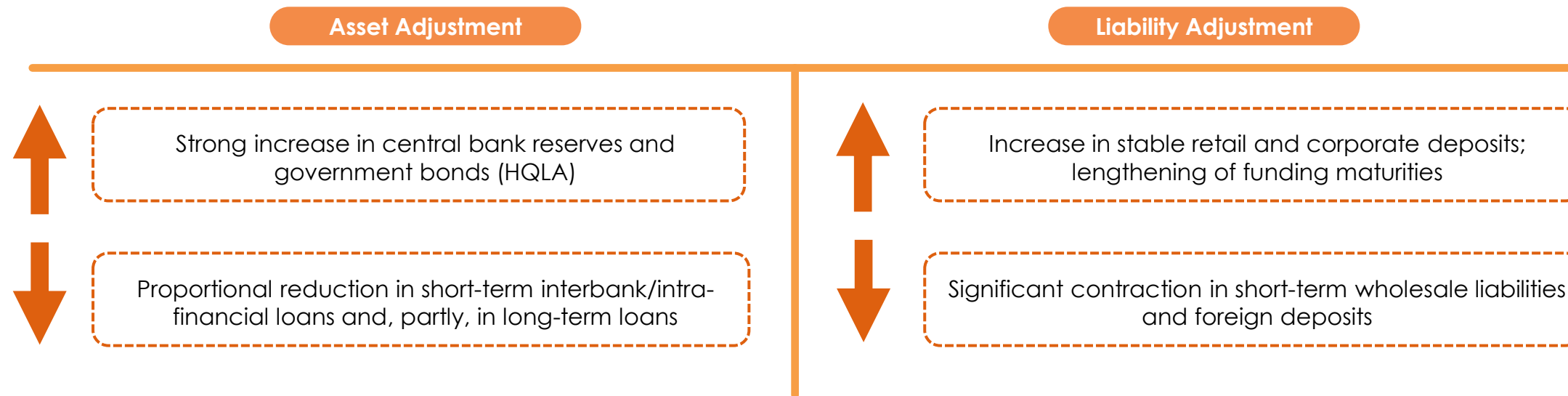
## Theoretical Work 2/2

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# Insights from Research 3/4

## Evidence after LCR implementation 1/2



Funding structures adjusted, but to a much smaller extent than asset compositions. Banks met the requirement primarily **by hoarding safe assets rather than fundamentally reinventing their liability structures.**

### The "Crowding Out" Effect



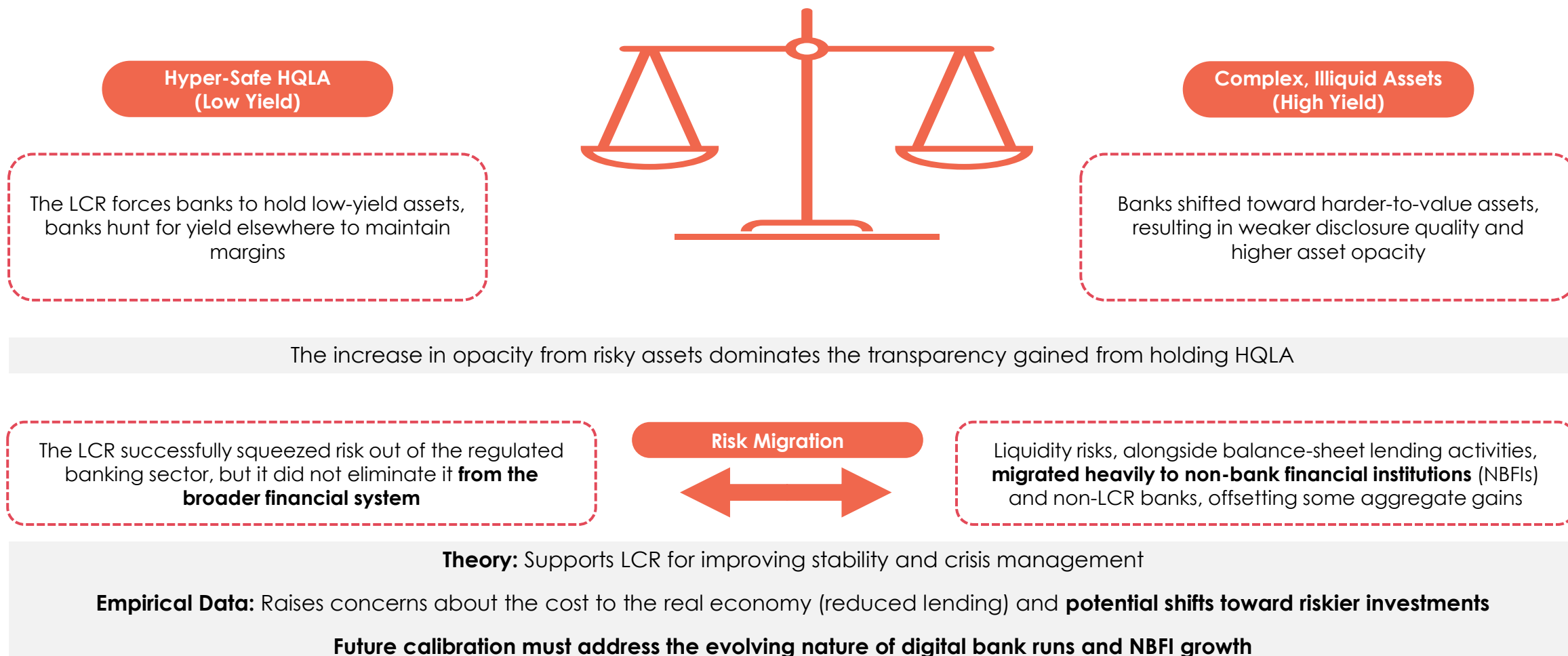
**More-exposed banks** reduced balance sheet lending to firms and households

Long-term lending volumes declined, and long-term borrowing rates rose

Overall bank interest margins and profitability compressed due to the displacement of high-yield loans with low-yield liquid assets.

# Insights from Research 4/4

## Evidence after LCR Implementation 2/2



# 04

## Liquidity Metrics in Asset Management

Comparing the LCR with ESMA Liquidity Metrics



# Liquidity Metrics in Asset Management

## Comparing the LCR with ESMA Liquidity Metrics

While the LCR provides a fundamental view of the asset-liability balance, **the investment fund sector applies advanced metrics** like the Redemption Coverage Ratio (RCR) and the Total Cost of Liquidation (TCL) to account for market depth and price impact.

### Coverage-based metrics

#### Redemption Coverage Ratio (RCR)

Analogous to the LCR, **RCR** measures the ability of a fund's assets to meet funding obligations (e.g., redemption shocks) arising from the liabilities side

#### Advanced Liquidity Metrics

Unlike simple asset buckets, ESMA requires a focus on **Liquidation Cost** (the cost of executing transactions in a timely manner) and **Time to Liquidity**, which estimates the volume of assets liquidatable at an acceptable cost within a specific horizon

### Cost-based metrics

#### Price Impact & Market Depth

Metrics like **Total Cost of Liquidation (TCL)** estimate costs stemming from bid-ask spreads and limited market depth. This acknowledges that "fire-sale prices" (liquidation at a material discount) are a function of both the size of the trade and the time allowed for execution

#### The Liquidity Surface

Managers often determine a **Liquidity Surface**, a function  $S(\text{size, time}) \rightarrow \text{cost}$ , to model how asset type, trade size, and liquidation horizon interact under normal and stressed conditions

Basel III focuses primarily on coverage of expected cash outflows (LCR), whereas **ESMA frameworks also quantify the cost of transforming assets into cash**, explicitly accounting for market depth and price impact

Based on: ESMA Guidelines on Liquidity Stress Testing in UCITS and AIFs (2020) and ESMA Economic Report on Stress Simulation (2019)

# 05

## Implications and Future Challenges

Open Questions

Trade-offs



# Implications and Future Challenges 1/2

## Open Questions

The literature broadly confirms the benefits of the LCR, while highlighting several unresolved policy and design questions.

### Interaction with central bank facilities:

The current framework does not fully incorporate the role of central bank liquidity facilities, despite their importance as the ultimate liquidity backstop during systemic stress episodes.

### Usability of liquidity buffers:

The LCR was designed as a usable liquidity buffer during periods of stress. In practice, banks may hesitate to operate below the regulatory threshold because of market stigma, supervisory constraints or internal risk limits.

### Impact on credit intermediation:

Higher HQLA holdings may reduce the balance-sheet capacity available for lending. Existing evidence suggests possible effects on bank credit supply, although the aggregate impact on the real economy remains unclear.

### Calibration of liquidity outflows:

Current run-off assumptions are largely based on historical stress scenarios. Changes in depositor behaviour, digital banking and funding concentration may alter the speed and stability of liquidity outflows during stress events.



# Implications and Future Challenges 2/2

## Trade-offs

The main policy challenge is to strengthen resilience without excessively reducing efficiency and credit intermediation.

### Potential costs and risks

- Reduced lending capacity
- Lower profitability
- Incentives to search for yield
- Migration of risks toward less regulated sectors
- Potential pro-cyclicality during stress

### Resilience benefits

- Higher stock of HQLA
- Lower reliance on unstable short-term funding
- Greater short-term shock absorption
- More time for supervisory intervention
- Lower probability of disorderly fire sales

### Overall implication:

The LCR improves the resilience of regulated banks, but part of the associated liquidity risk may be transformed, displaced or amplified elsewhere in the financial system.

# 06

## Conclusions & Take-aways

Key Conclusions on the LCR



# Conclusions & Take-aways

## Key Conclusions on the LCR

### Effective as a liquidity constraint:

Evidence suggests that banks subject to the LCR increased their holdings of HQLA and reduced vulnerabilities associated with unstable short-term funding structures.

### Uncertain macro-financial impact:

Although the LCR improves individual bank resilience, the literature has not yet fully established its aggregate effects on systemic risk, credit supply and financial stability.

### Open policy questions remain:

Further work is still needed on run-off rate calibration, buffer usability, procyclicality, NBFIs risk migration and the interaction with central bank liquidity tools.

*The LCR has strengthened banks' short-term **liquidity resilience**, but important questions remain regarding its calibration, usability and broader financial system effects.*

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**iason** is an international consulting firm that has been supporting both financial institutions and regulators in topics related to Risk Management, Finance and ICT since 2008

## Strategy

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**Strategic advisory** on the **design** of **advanced frameworks** and **solutions** to fulfil both **business** and **regulatory needs** in Risk Management and IT departments

## Methodology & Governance

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**Implementation** of the designed **solutions** in bank departments **Methodological support** to both **systemically important financial institutions** and **supervisory entities**

## Solution

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Advanced **software solutions** for **modelling, forecasting, calculating** metrics and **integrating** risks, all on cloud and distributed in Software-as-a-Service (**SaaS**)

# Company Profile

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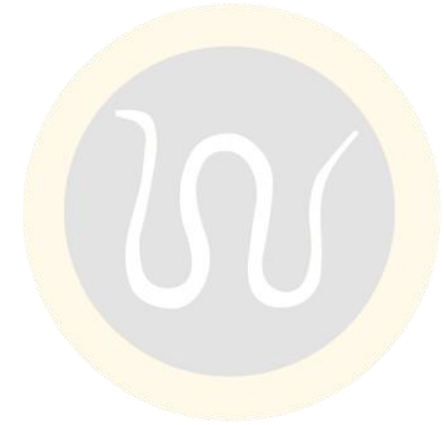
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