

Panel on Systemic Liquidity Risk

Rafael Repullo

CEMFI

European Systemic Risk Board Annual Conference

Frankfurt, 27 September 2024

Overview

- Systemic risk: solvency vs. liquidity
- Rationale for Basel liquidity standards
- New evidence on systemic bank runs
- An alternative approach
- Concluding remarks

Part 1

Systemic risk: solvency vs. liquidity

Solvency vs. liquidity risk (i)

- Simplified balance sheet of a bank

Assets	Debt
	Equity

Solvency vs. liquidity risk (i)

- Solvency shock

→ Heavy losses in market portfolio

↓ Assets	Debt
	Equity ↓

→ Impact effect: reduction in bank's capital

→ Secondary effect: sales of assets to reduce leverage

Solvency vs. liquidity risk (i)

- Liquidity shock
→ Depositor run

Assets	Debt ↓
	Equity

Solvency vs. liquidity risk (i)

- Liquidity shock
→ Depositor run

↓	Assets	Debt	↓
		Equity	

- Two possible responses
→ Sell assets (if you can find a buyer)

Solvency vs. liquidity risk (i)

- Liquidity shock
 - Depositor run

Assets	Debt	↓ ↑
	Equity	

- Two possible responses
 - Sell assets (if you can find a buyer)
 - Raise new debt (if you can find a lender)

Solvency vs. liquidity risk (ii)

- We can have an aggregate solvency shock
 - Due, for example, to the bursting of real estate bubble
- Depletion of banks' capital may lead to credit crunch
 - Central bank can inject liquidity but not equity capital
- Justification for macroprudential policy
 - Countercyclical capital requirements

Solvency vs. liquidity risk (iii)

- In contrast with an aggregate solvency shock
 - An aggregate liquidity shock is much less likely to happen
- Why?
 - Depositors run to other banks
 - Lenders will try to find other (safer) borrowers
 - Central bank can inject liquidity

Summing up

- From a systemic perspective
 - Solvency and liquidity shocks are very different
- Implications for the design of macroprudential policies
 - Focus should be on capital buffers, not liquidity buffers

Part 2

Rationale for Basel liquidity standards

Two rationales

- Liquidity buffers buy time to discover the bank's true solvency
 - Improves the decision of the lender of last resort
 - Santos and Suarez (2019)
- When short-term funding generates fire-sale externalities
 - Liquidity buffers (partly) correct the externality
 - Perotti and Suarez (2011)

First rationale: Santos and Suarez (2019)

- Possibility of very fast runs (Silicon Valley Bank)
 - Leaves no time to discover anything
 - Or requires implausible increases in the LCR
 - Better think of an alternative rationale

Second rationale: Perotti and Suarez (2011)

- Quantity standards (LCR) partly correct the externality
 - But they are distortionary
 - Limiting the investment of more efficient banks
- Pigouvian taxes would be better
 - How could they be (approximately) implemented?
 - Through capital requirements (if equity capital is costly)

Summing up

- Capital requirements on short-term (wholesale) funding
 - Increase funding liquidity through higher solvency
 - Correct incentives for excessive short-term borrowing

Part 3

New evidence on systemic bank runs

New evidence on systemic bank runs (i)

- Recent paper by Jamilov, König, Müller, and Saidi (2024)
 - Bank runs in 184 countries over the past 200 years
 - Many facts documented, in particular

“In historical and contemporary episodes, depositors tend to run on highly levered banks, causing a credit crunch and a reallocation of deposits across banks.”

New evidence on systemic bank runs (ii)

- Two points to note in connection with this fact
 - Link between bank solvency and incentives to run
 - Depositors run to other (highly capitalized) banks

Part 4

An alternative approach

An alternative approach...

“Perhaps the most direct way to reduce runs related to unstable funding is to require financial organizations dependent on unstable funding to hold significantly more capital than they would if they used stable sources of funding.”

Eric Rosengren (2014)

..and its implementation in the US

“The final rule requires GSIBs to calculate their surcharges under two methods and use the higher of the two surcharges. The first method is based on the framework agreed to by the BCBS and considers a GSIB’s size, interconnectedness, cross-jurisdictional activity, substitutability, and complexity. The second method uses similar inputs, but **replaces substitutability with a measure of the firm's reliance on short-term wholesale funding.**”

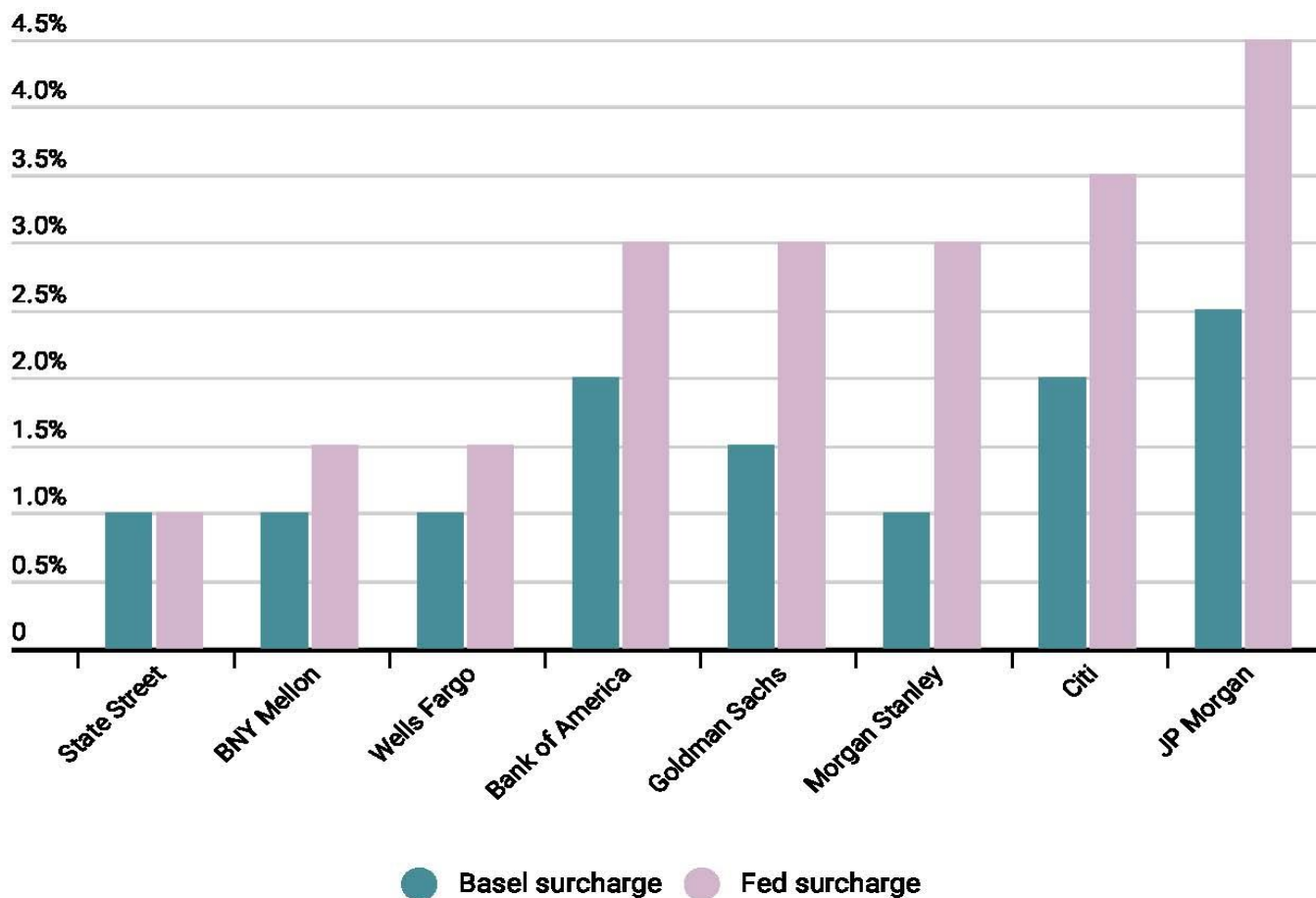
Federal Reserve Board (2015)

GSIB charges for US banks

- Method 2 surcharges have been binding for all eight US GSIBs
- The difference with method 1 surcharges is very significant
 - In some cases up to 200 bps

GSIB charges for US banks

US G-Sib surcharges under Fed and Basel methodologies, end-2022



Concluding remarks

Concluding remarks (i)

- From a macroprudential policy perspective
 - Focus should be on capital buffers, not liquidity buffers
 - Move towards positive neutral CCyB is most welcome

“The Committee supports and sees benefits in the ability of authorities to set a positive cycle-neutral CCyB rate.”

BCBS (2022)

Concluding remarks (ii)

- Microprudential liquidity regulation is in need of repair
 - Recognize connection liquidity and solvency risk
 - Break the “silo approach” of the Basel Committee
- What would I recommend?
 - Merge LCR with NSFR (LCR with different weights)
 - Introduce capital charges for liquidity risk in open manner

References

- Basel Committee on Banking Supervision (2022), “Buffer Usability and Cyclicalities in the Basel Framework.”
- Jamilov, R., T. König, K. Müller, and F. Saidi (2024), “Two Centuries of Systemic Bank Runs,” CEPR Discussion Paper No. 19382.
- Perotti, E., and J. Suarez (2011), “A Pigovian Approach to Liquidity Regulation,” *International Journal of Central Banking*.
- Rosengren, E. (2014), “Broker-Dealer Finance and Financial Stability,” Speech at a Conference on the Risks of Wholesale Funding.
- Santos, J., and J. Suarez (2019), “Liquidity Standards and the Value of an Informed Lender of Last Resort,” *Journal of Financial Economics*.