Balance sheet evolution, regulatory complexity and financial stability

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Presentation at Magyar Nemzeti Bank – Official Monetary and Financial Institutions Forum

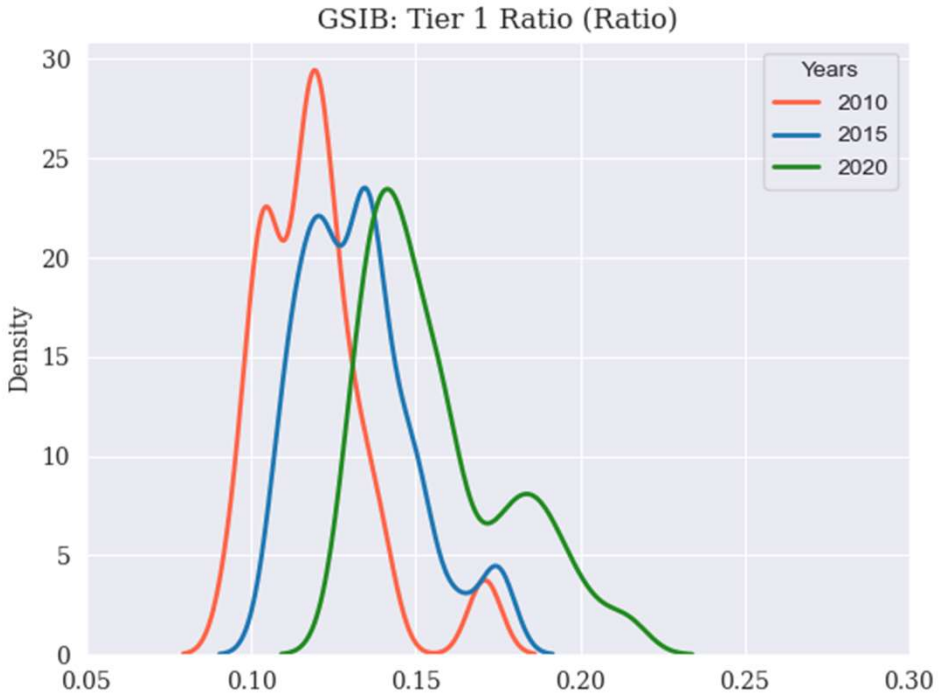
Outline

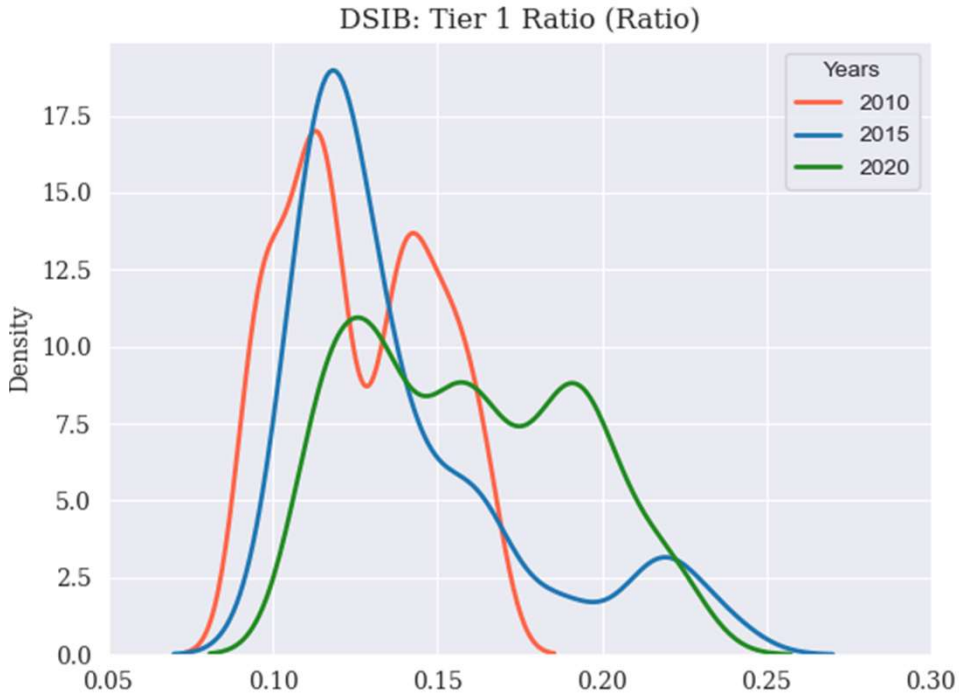
- How have bank balance sheets evolved since the GFC?

- What evidence is there that the regulatory system is too complex? What can be done?

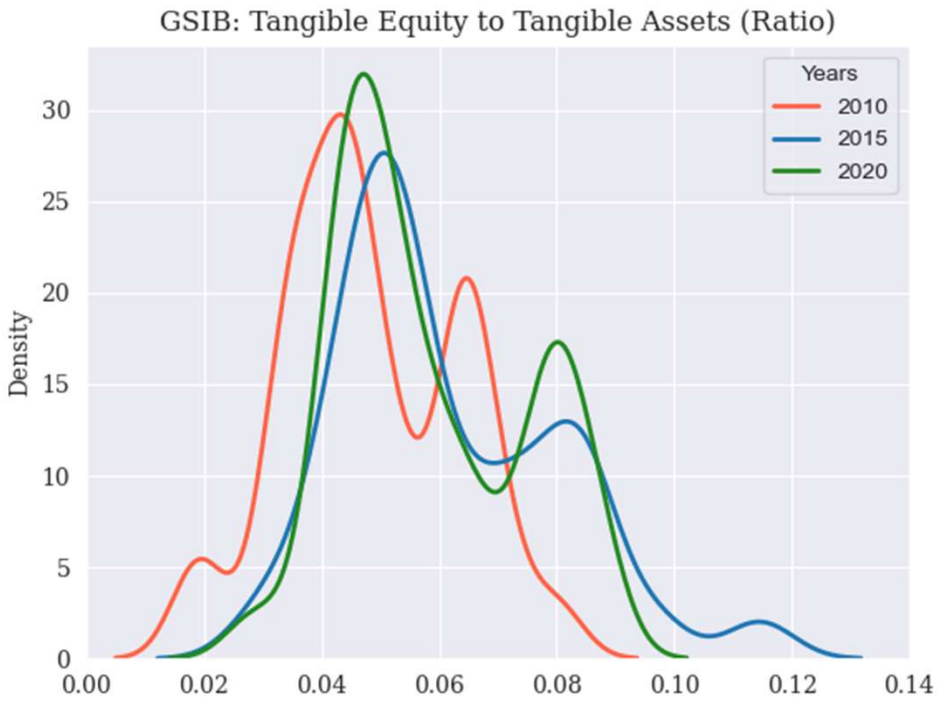
How have bank balance sheets evolved since the GFC?

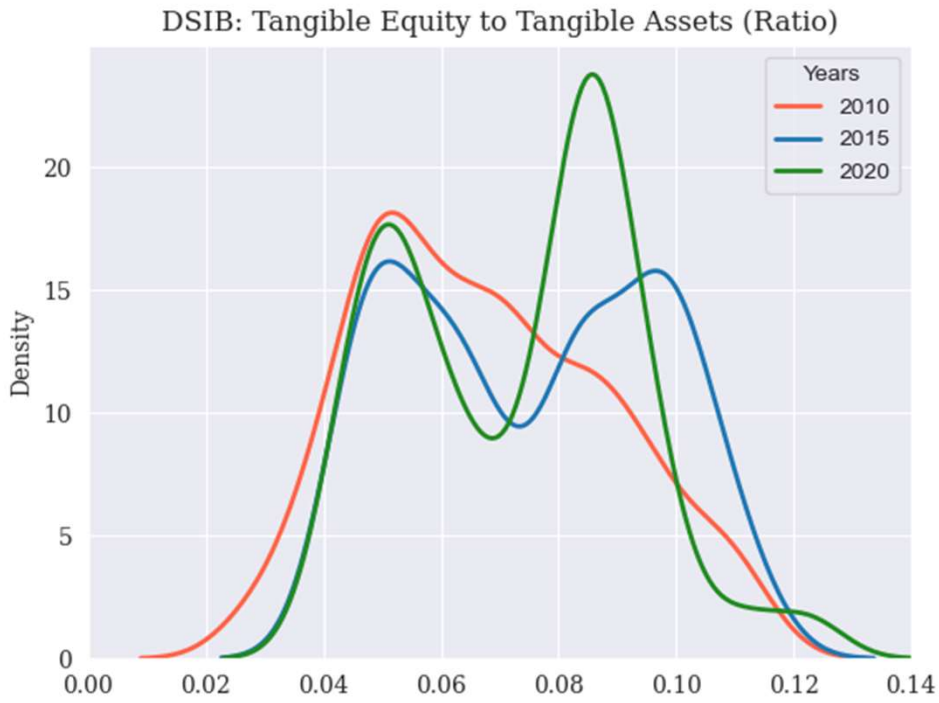
Tier 1 capital ratio





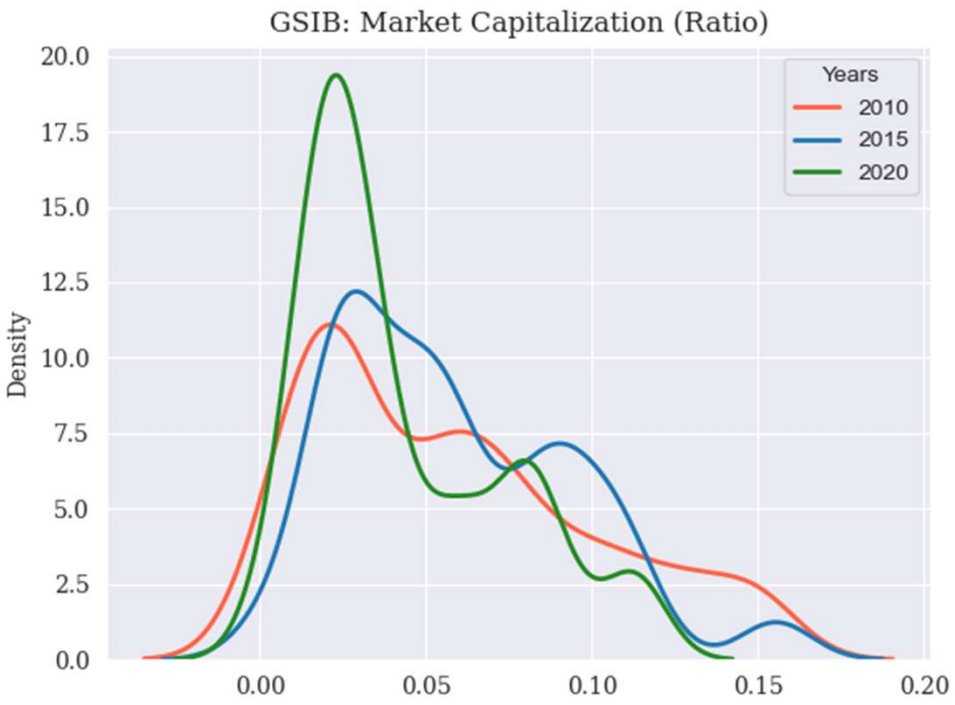
Tangible equity to asset ratio

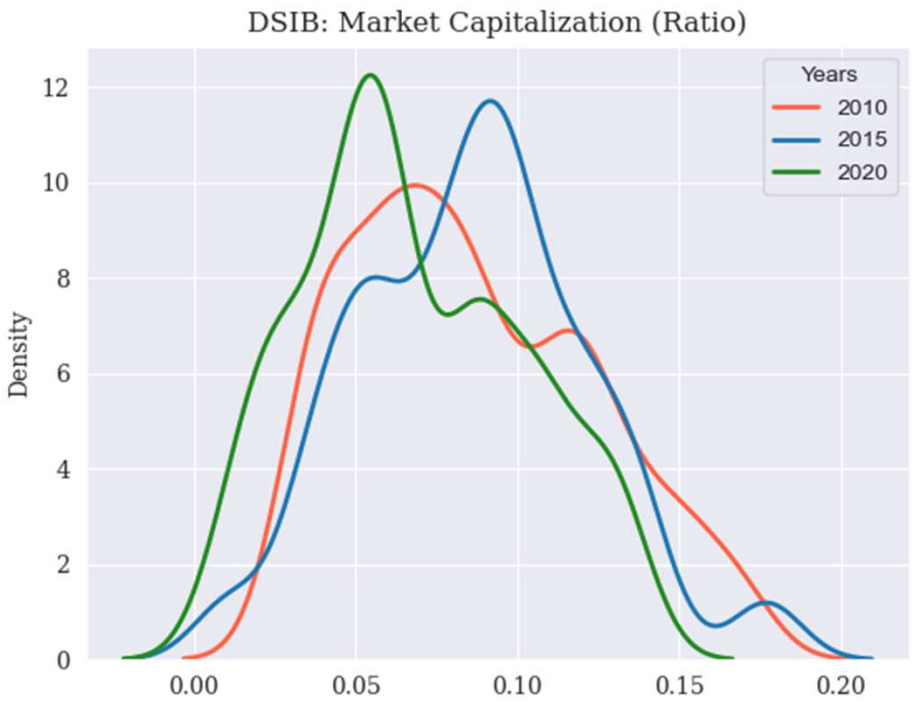




Note: Tangible equity (assets) defined as total equity (assets) less goodwill and other intangible assets

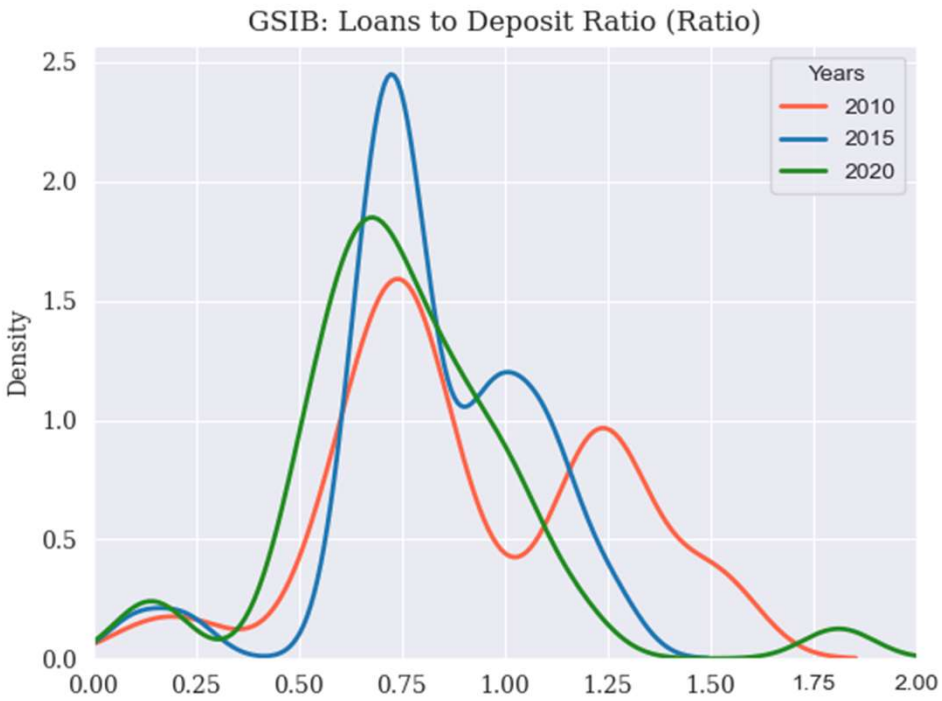
Market leverage ratio

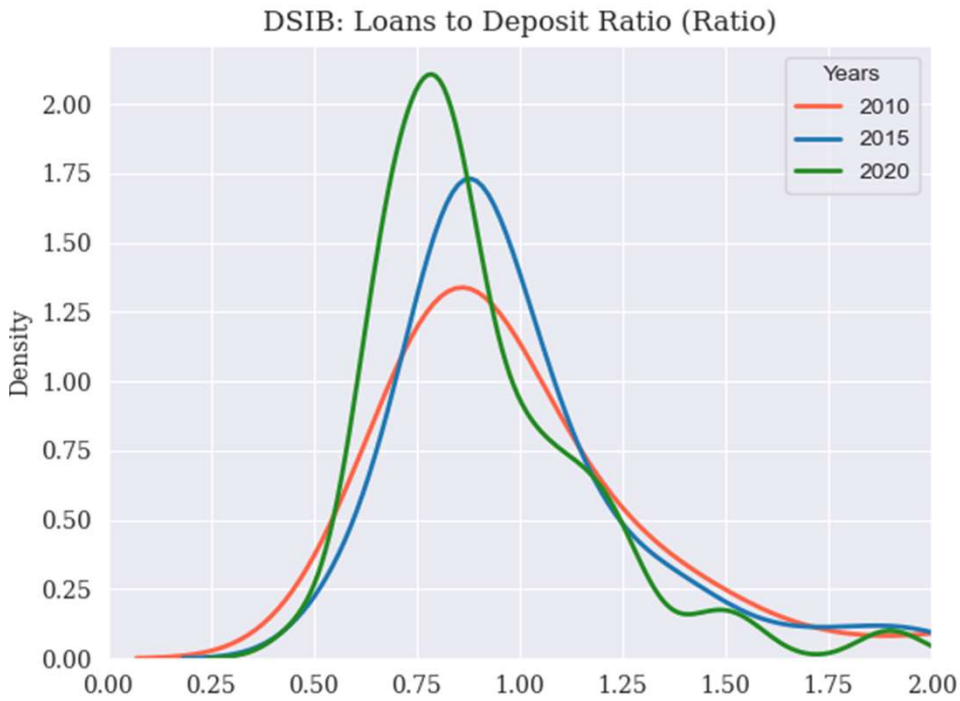




Note: Market capitalisation over total assets

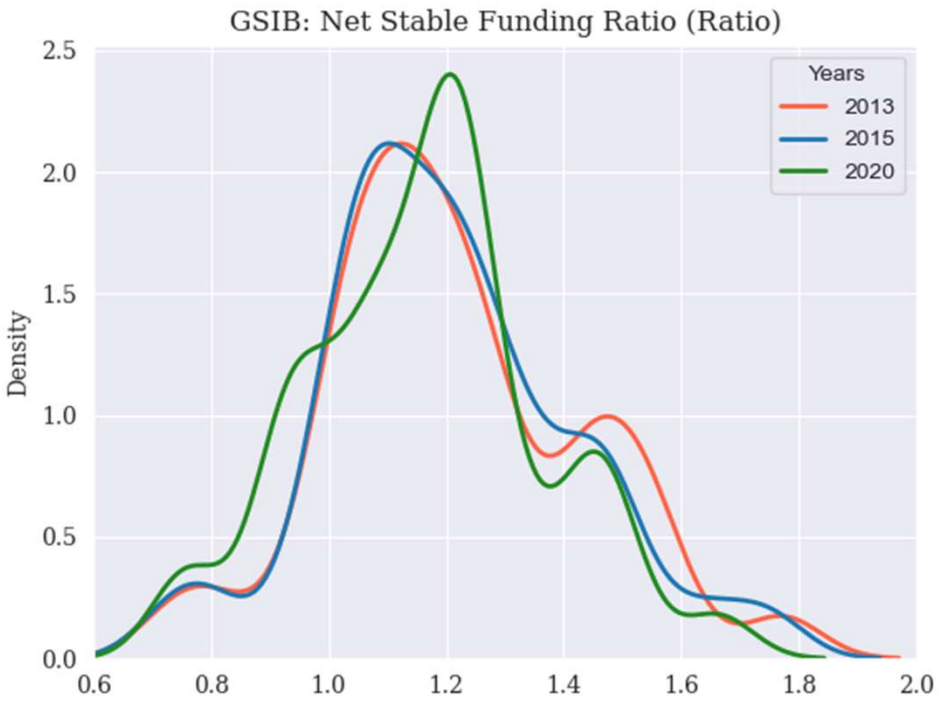
Loan to deposit ratio

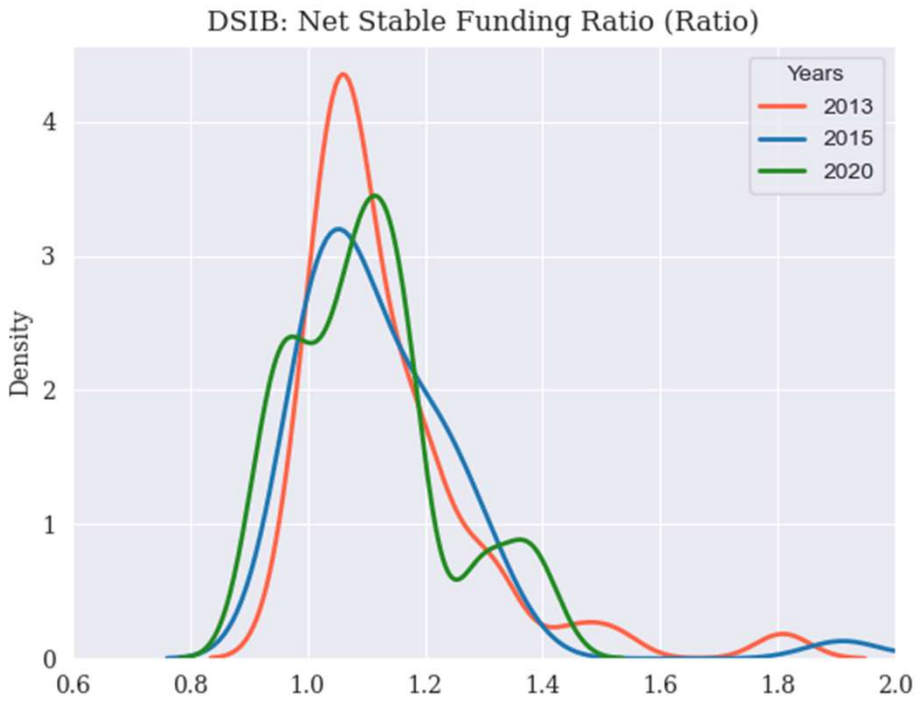




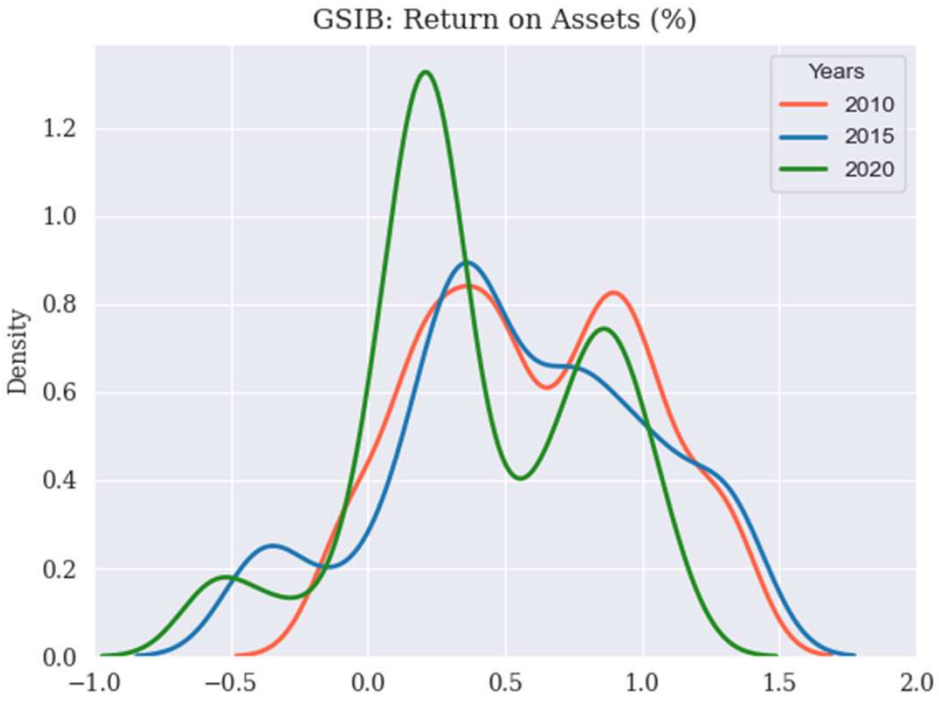
Note: Loans divided by customer deposits

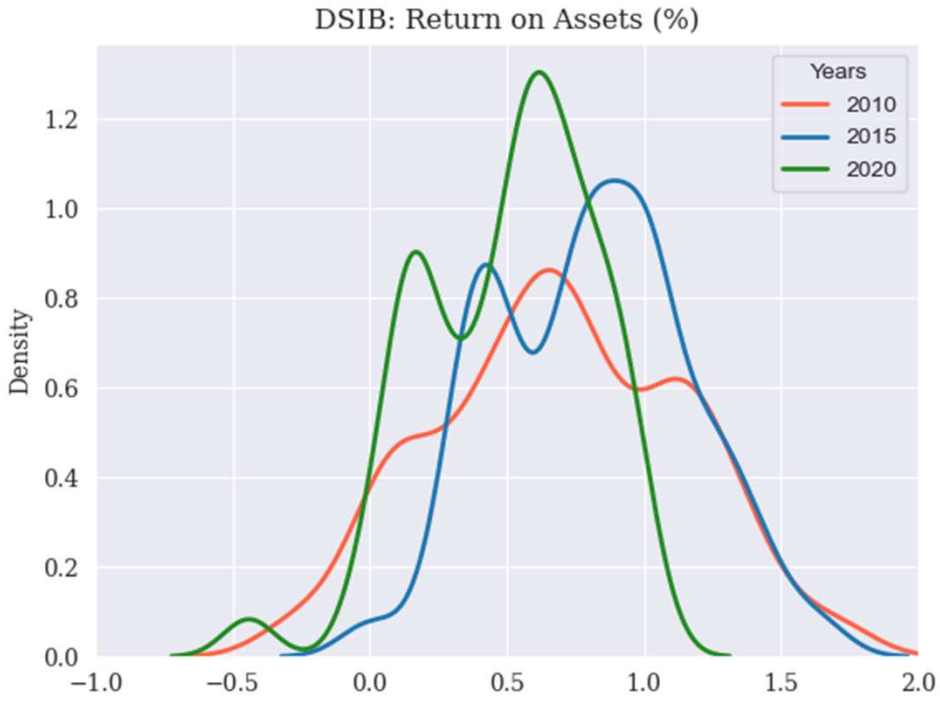
Net Stable Funding Ratio





Return on Assets





Summary

	2010	2020
Tier 1 capital ratio	11.9%	15.7%
Tangle equity ratio	4.8%	5.8%
Market leverage ratio	5.8%	4.3%
Loan to deposit ratio	92%	77%
NSFR*	1.2	1.2
Net interest margin	1.9%	1.4%
RoA	0.6%	0.4%

Note: Mean unweighted GSIB readings; * indicates 2013 reading

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What evidence is there that the regulatory system is too complex? What can be done?

Regulatory complexity has grown enormously

	Basel I	Basel II	Basel III
Total word count	10,166	151,151	425,754
Number of conditional statements	54	1,172	3,041
Number of uses of “trade off” and “conflict”	0	4	25
Reading ease (Flesch)	33.3	30.2	30.0

For context, *War and Peace* has around 600,000 words

Why is the regulatory system so complex?

Complexity reflects several factors:

- A belief that a complex financial system requires a complex regulatory framework
- Concern about the incentives created by a risk-insensitive system
- Lobbying and compromise
- Incrementalism, leak fixing
- Desire to protect “insider rents”?

Is it problematic that regulation is so complex?

My answer is an unambiguous “yes”

1. Direct **compliance costs**

2. Complexity may be **anti-competitive** if there is a fixed cost to understanding, interpreting and operationalising rules

Is it problematic that regulation is so complex?

3. Complex rules may be **less effective**

- It is *a priori* problematic to have a regulatory system that is well understood by neither the regulated nor the regulators
- Simple rules often outperform complex rules in situations of "uncertainty" (Gigerenzer) – variance-bias trade off and the risk of overfitting the past

4. Complex rules make it **harder to assess** if the regulator is doing a good job

- Wide dispersion in risk-weighted assets across banks with similar exposures, plus the downward trend in average risk-weight density through time
- Little scrutiny over model approvals, revisions

What should be done to reduce complexity?

2 broad routes:

1. Remove some constraints
   —Greenwood et al (2017) propose eliminating the leverage ratio on efficiency grounds.
   —Cecchetti and Kashyap (2016) propose eliminating the NSFR on redundancy grounds

2. Simplify the constraints that exist

Simplify existing constraints

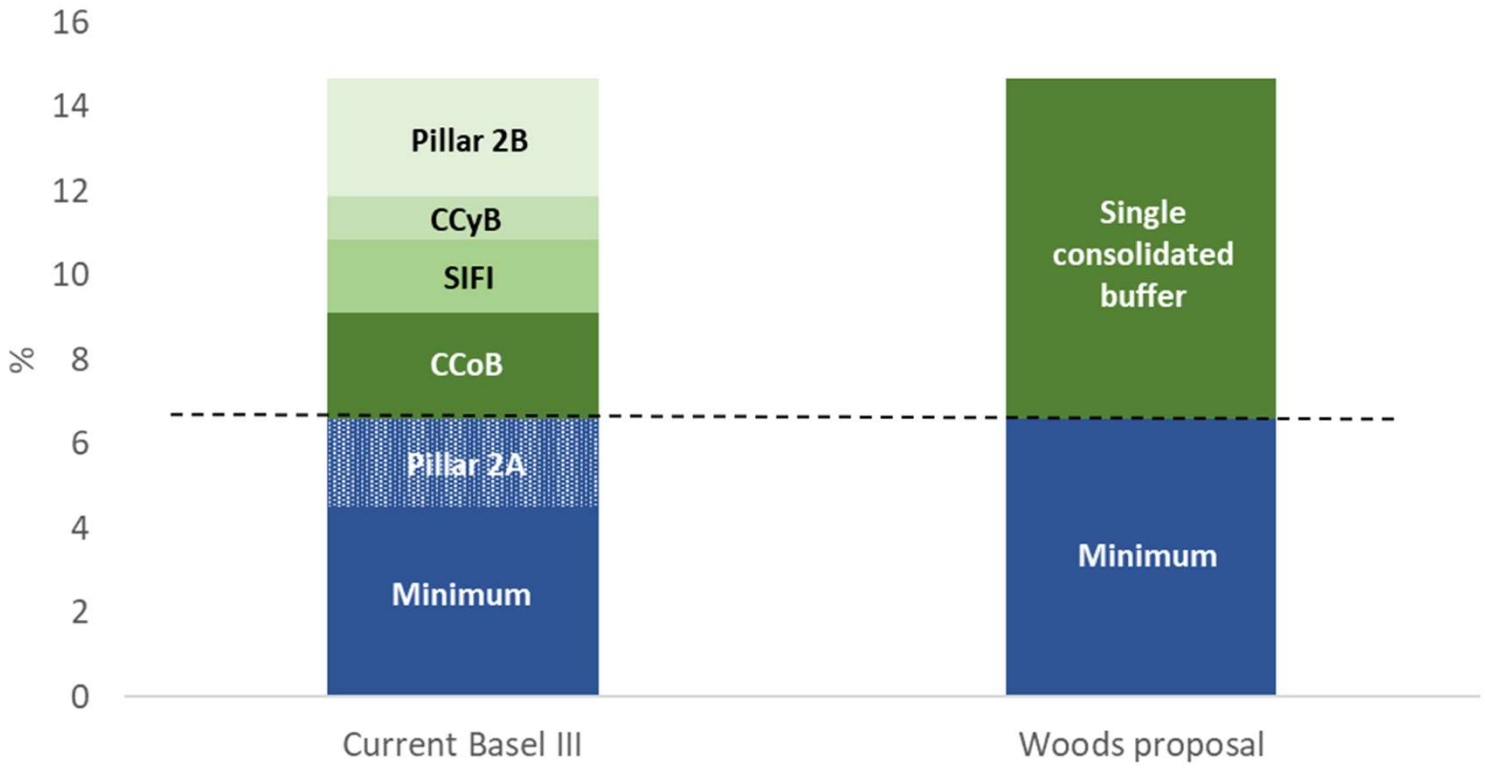
Sam Woods' recent suggestions*

- Consolidate all existing buffers into a single fully-releasable buffer
- All in common equity. No AT1.
- Buffer calibrated to reflect macropru/micropru considerations
- Remove automatic link to MDA restrictions – replace with fuzzier judgment-based ladder of intervention
- Retain option to impose across-the-board restrictions on dividends
- Low minimum requirement

I'm mostly in complete agreement, although these proposals do not go far enough

* See "Bufferati", speech given to City Week 2022

Proposal for a single consolidated fully-releasable buffer



Proposal for a single consolidated fully-releasable buffer

Attractive proposal but…

Plus ça change? The level of buffers and minima could remain completely unchanged, just relabelled

Key questions:

- Does this approach lead to a different judgement about the appropriate level/distribution of capital across the system?
- How important/feasible is it to make buffer fully releasable in a stress?

Further elements of the framework we can simplify

Leverage ratio

- Introduce a flat scaling factor applied to both the minimum risk-weighted requirement and consolidated buffer – a minimum average risk weight

Countercyclical buffer (CCyB)

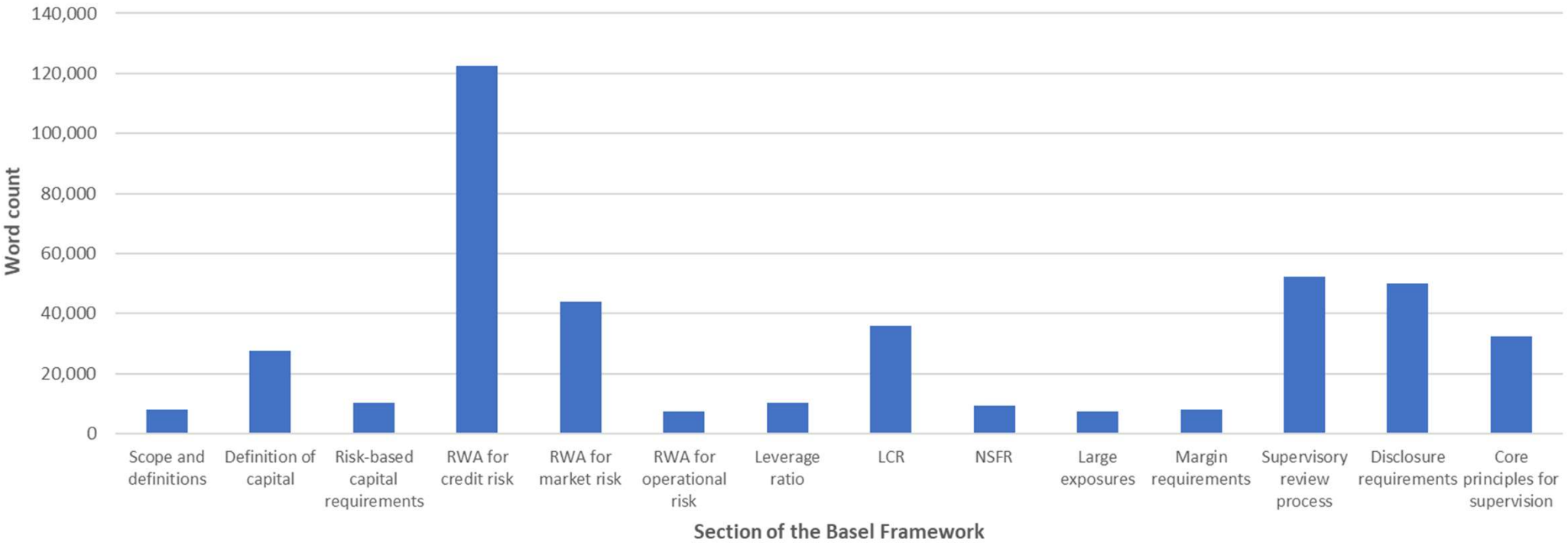
- Case for removing country-exposure weights? ie so the CCyB chosen in Hungary passes through one-for-one to all Hungarian banks' capital requirements
- The CCyB is not being used as actively as intended – case for making it rules-based with potential to override?

Real complexity lies elsewhere

Focusing on the visible elements of the capital stack gives an illusion of simplicity

Real complexity lies in the risk-weight calculations

Complexity by chapter of current Basel framework



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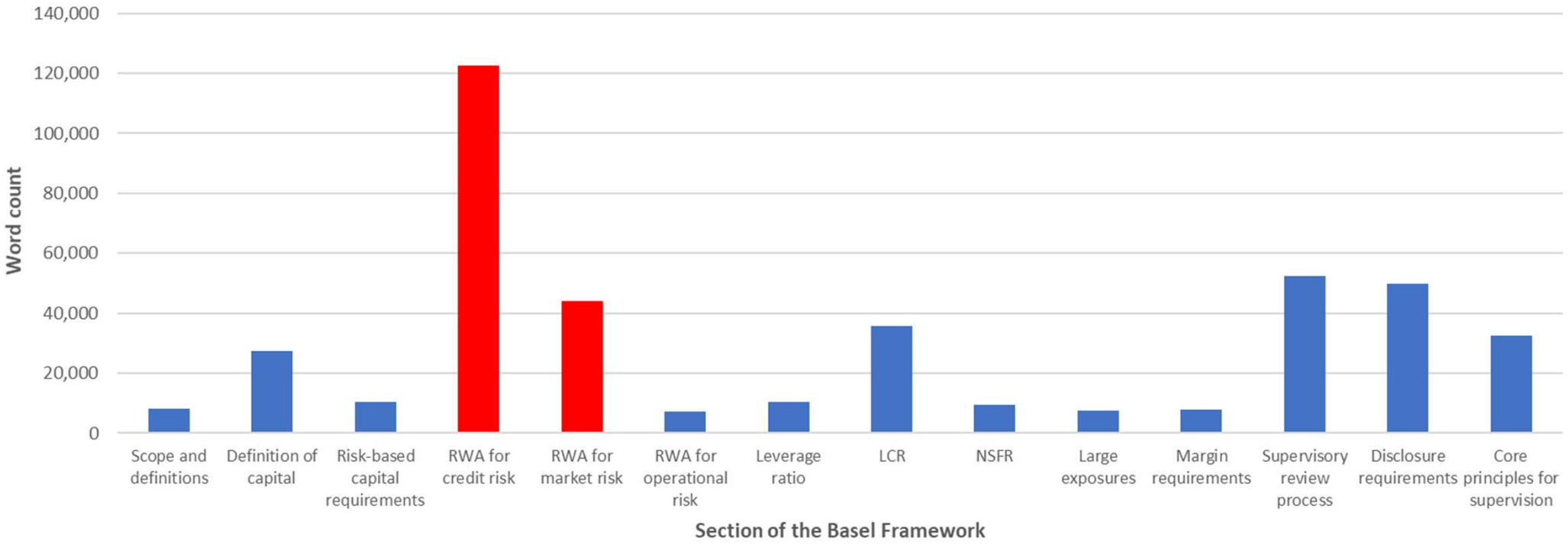

Real complexity lies elsewhere

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Real complexity lies in the risk-weight calculations

The decision to integrate banks' own internal models in the Basel process has been a major error

- Underappreciation of the vulnerability of such models to gaming

Strong case for the Basel committee to review their use and consider a standard based solely on a relatively simple standardised approach, with potential to review/update

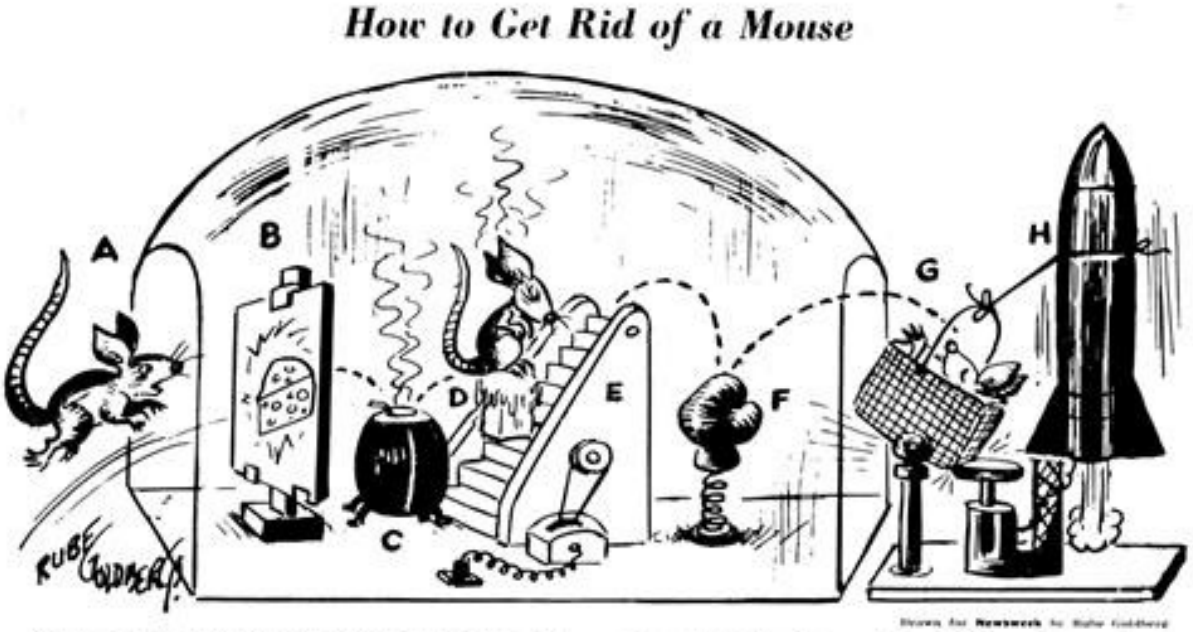
Summary

Regulatory complexity is an important problem to address

Arguments for removing existing constraints are not convincing

Much scope to simplify existing constraints

- Simplify buffer framework
- Simplify leverage ratio (and CCyB?)
- Big ticket issue: eliminate internal models



The best mousetrap by Rube Goldberg: Mouse (A) dives for painting of cheese (B), goes through canvas and lands on hot stove (C). He jumps on cake of ice (D) to cool off. Moving escalator (E) drops him on boxing glove (F) which knocks him into basket (G) setting off miniature rocket (H) which takes him to the moon.

Thank you!

Additional slides

Case for removing constraints

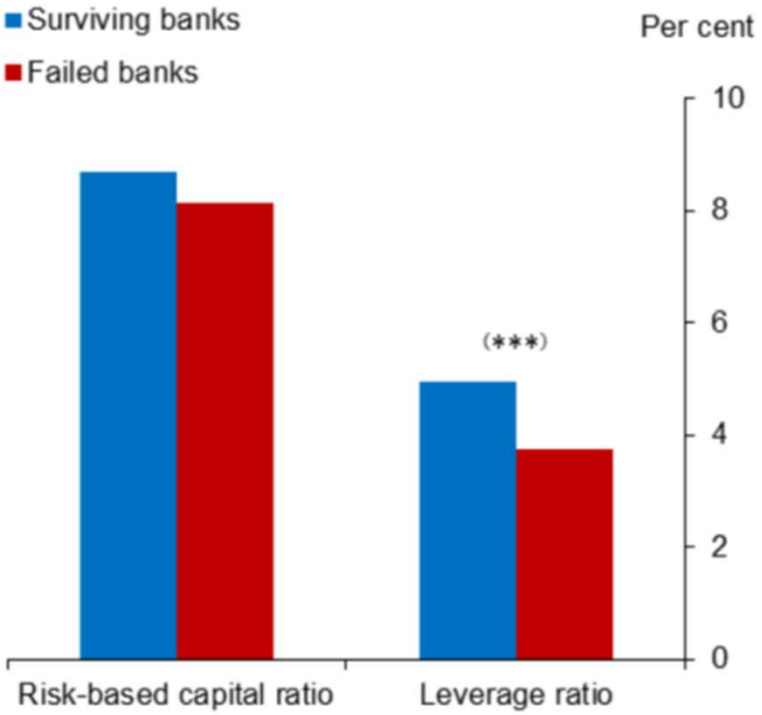
Greenwood et al (2017) propose **eliminating the leverage ratio** as it creates different marginal capital charges for banks with the same exposures – inefficient

I don't find this convincing

Conceptually: The leverage ratio helps us guard against getting risk weights on some exposure classes badly wrong, eg sovereigns

Empirically: The leverage ratio does a superior job of predicting bank failure in GFC

Chart 4: Average solvency ratios of major global banks, end-2006[(a)(b)]



Source: Capital IQ, SNL, published accounts, Laeven and Valencia (2010) and Bank calculations.

(***) Denotes null hypothesis of mean equality rejected at the 1% significance level.

Case for removing constraints

Cecchetti and Kashyap (2016) propose **eliminating the NSFR** arguing that it is likely to be redundant

Arguments in favour and against NSFR are less clear cut than with leverage ratio

- NSFR and LCR may be substitutes for reducing run risk
- Buckmann et al (2021) find that portfolio of constraints including the NSFR performs best in identifying failing banks while minimising false alarms