Supervisory Effectiveness

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Outline of talk

1. Supervision: “State of Affairs”
2. Supervisory Effectiveness (SE): How to define it?
   - Conditional on market discipline & regulation (MDR)
   - A human task, both complement & substitute to MDR
   - Various trade-offs.. And asymmetries
3. What works (best) to enhance SE?
   - Specialness of SE. Key is governance, external&internal
   - Documented drivers of SE. Other aspects. Efficiency
   - SMM observations. Balancing act. Accountability
4. Recent lessons and future challenges
   - Reviews and lessons (by official and others)
   - Many challenges. Old and new risks

Supervisory effectiveness (SE): “State of Affairs”

Many improvements post GFC

Market discipline, both of management and investors

Regulation, both microprudential and macroprudential

Supervision: more resources, new tools, adopting global practices (BCP)

Institutional changes, e.g., SSM

General: more conservative banking (but one generation..

Recent successes but issues

Overall financial stability was preserved, but failures avoided not visible..

Gaps in risks identification and even more in follow-up. Too compliance oriented

Liquidity management/oversight poor

Frictions in international cooperation

Defining SE: conditional factors

1. Market discipline
   - Bank management remains first line of defense
   - Market discipline: hardly in the time-series, a little better in cross-section
   - Not sufficient anyhow (market failures, externalities, moral hazard
2. Regulation, both microprudential and macroprudential
   - Set supervisory goals, at least in part (e.g., extreme case is narrow banks only
   - Can have (well-known) gaps (complete Basel III!) and challenges, e.g.,
     - borrower-based macroprudential (missing in US, partly for SSM (≠ borrower-based)
     - regulatory arbitrage, Goodhart's law
     - changes in financial services provision (e.g., growth of non-banks, DeFi, AI
3. Many other policies and institutions
   - e.g., monetary policy mattered this time (as it has before); missing/wrong institutions

SE: hard and soft data, with asymmetries

- Tasks
  1. Identification of outlier banks that need supervisory attention
     - EWE of possible failures, individual and system vulnerabilities
  2. Show and then correct deficiencies, including manage orderly winddown
- Data help but never foolproof => need human interventions
  - EWE/Identification with hard and codified soft data (often most important
  - Yet in (prudential) supervision both Type I and II errors, with asymmetries
    - Benefits and costs of no failures private to agency and more implicit
    - Yet costs of failures public and can be large
  - Tradeoff between two types of errors needs to be set ("area under the curve"

➢Function of accountability, political economy, etc.

SE: a residual, human task, affecting change

SE is the relative/additional contribution of "staff" in information gathering and follow-up	"Supervision is required both to ensure compliance with regulation but also to allow for the use of soft information in mitigating externalities of bank failure." But with balance, e.g., the US "bank lobby" says. "Bank examination is significantly more expansive, less accountable and more focused on immaterial risks than it used to be"
Supervisory (soft) information is (shown to) be valuable	"Empirically, more intensive supervision results in reduced risk-taking" and "CAMELS is 50% M" "Beneficial effects of TRIM - less discretion of banks: less risk taking, more/cheaper credit"
Disclosure (selective) of supervisory information can help bank, markets	"Stricter supervision operates not only through the enforcement of loss recognition and capital adequacy, but can also act as a catalyst for operational changes that correct deficiencies in bank management and lending practices, which in turn increase lending." Stress tests in US and EU generally led to less risk-taking (through banks' and market discipline
How does information flow back to bank, effects of disclosure, and how do banks respond?	E.g., supervisory information obtained from stress tests is valuable, but decays over time • US more leveraged banks greater stock price, trading volume effects; worse quality banks in EU more affected • Effects diminish over time. What information to release to whom? Do you want to surprise financial markets?

What are deeper issues in achieving SE?

- SE common challenges for official agencies
  - No bottom line compared to the private sector affects staffing, governance
- Financial supervision perhaps more challenging, especially prudential (≠ markets
  - More regulatory arbitrage, with costs occurring in future
  - Unlevel playing field, arms' race
  - Harder to recruit, revolving door
  - ➢ Make mission statement and culture even more important
- Organizational and institutional structures not "optimized" from 1st principles
  - Path dependency, structures evolve with shocks/financial crises
  - Coordination/separation between monetary policy, regulation, supervision, insurance
    - Often not "optimal" and subject to change
    - Can make many tasks harder due worse incentives or even conflict of interests

What are possible solutions?
Key is external and internal governance

External governance includes

- Financial/budgetary independence, good pay, no political interference, etc. With corresponding accountability of course
- “Good” institutional assignments (domestic, supranational, international

Internal governance includes, among others

- Checks and balances, e.g., separate risks detection, enforcement, analysis
- Internal evaluation groups, research functions (e.g., FDIC’s analytical center), second line of defense, or first line to trigger actions, with reports to boards, public
- Analysis and data availability inside and to outside (like call reports in the US

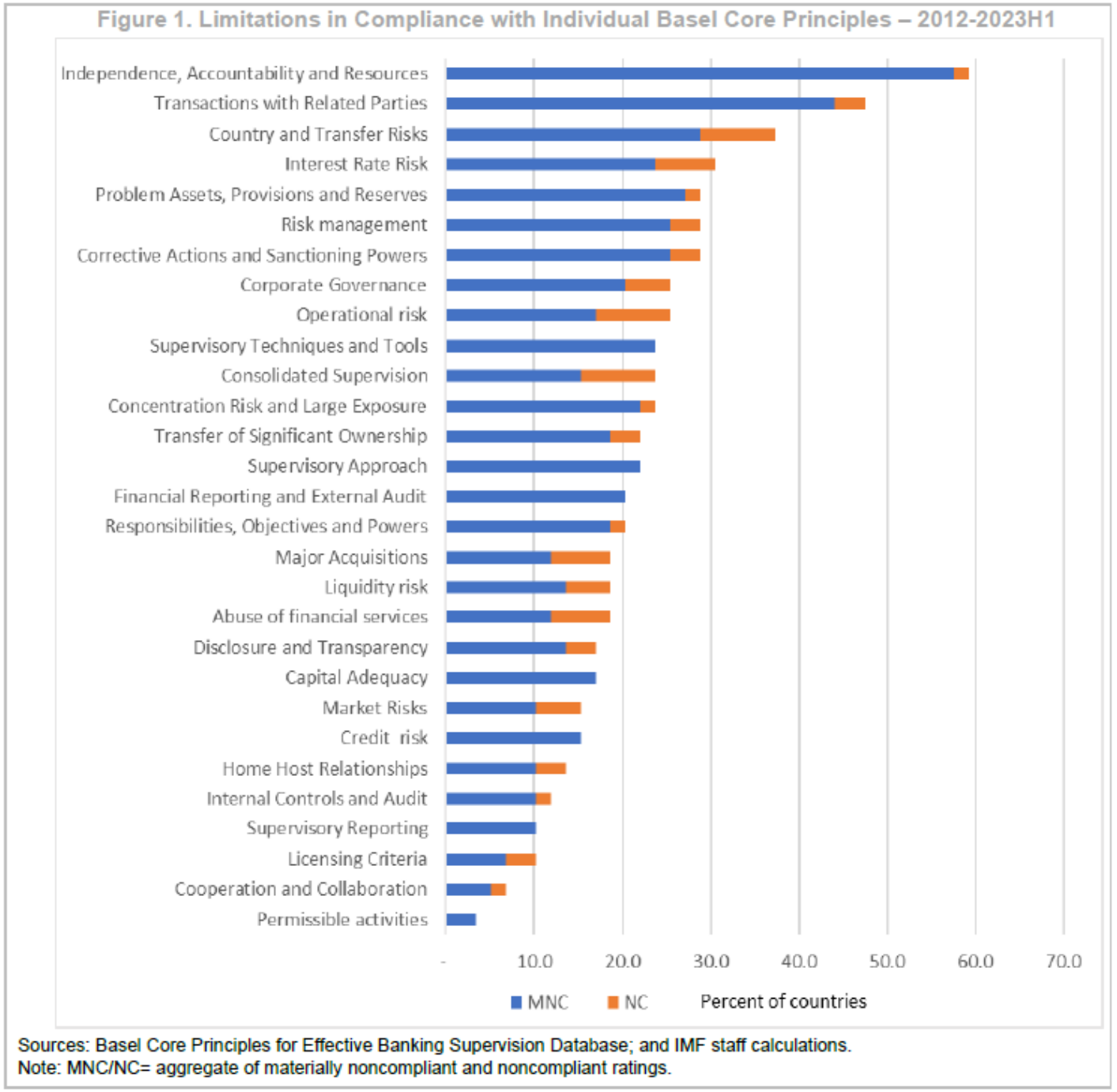
SE: What works (best)? Analysis, FSAPs, BCPs, experiences, etc. make the basic drivers clear

- Barth et al (2005), World Bank, etc. e.g., Cihak and Tieman (2008) “banking supervision quality can be explained by general country governance variables and by income level (GDP per capita)”
- IMF (2004a, 2004b) “[an] evaluation of issues brought out by FSAP assessments, identifies weaknesses to be regulators’ independence, regulatory objectives, and governance arrangements between the regulator and self-regulatory organizations; and the conduct of regulation, such as enforcement, consistent application of rules and laws, and the effective and timely application of regulatory powers.”
- Dordevic et al IMF (2021) “the better a jurisdiction met CP1 and CP2, CP1 (on responsibilities, objectives, and powers) and CP2 (on independence, accountability, resourcing, and legal protection for supervisors), the less fragile its banks tended to be”
- Still, much to do. Adrian et al IMF (2023) “Despite identifying a strong association between the institutional setting for supervision and bank soundness and stability, many countries still lack independent bank supervisors with a clear financial soundness mandate and appropriate set of powers”.
- Recent evidence confirms this, but with new twists. For example, Sigmund and Döme (2024): “[Europe] the CCyB decision is driven by the supervisory funding structure. .. [that] which involves the government leads to significantly higher CCyB rates.”

Countries still fall short of some supervisory core principles

"When examining ..CP1 (on responsibilities, objectives, and powers) and CP2 (on independence, accountability, resourcing, and legal protection for supervisors), we found that CP2 is the least well met principle overall, and lack of operational independence the most common challenge faced by supervisors" See Figure =>

Text and Figure 1 from Adrian et al 2023.



Other institutional aspects that matter

Complementary tools and institutions

- Much theory on how supervisory incentives with integrated financial markets is more likely imperfect without common deposit insurance and resolution funds/sovereign risk-sharing
- Impact of early stress tests between US vs EU provide some evidence: EU was less useful, in eyes of financial markets, as tests suggested reverse engineering, maybe since backstop (how to recap if needed) was missing. Also, interventions biased by nation's fiscal space

Assignments matter

- Lepers (2024): "independent central banks are less likely than Ministries of Finance to tighten macroprudential policy in the expansion phase of the credit cycle". Suggest a conflict of interests with other roles of or an overloading of central bank

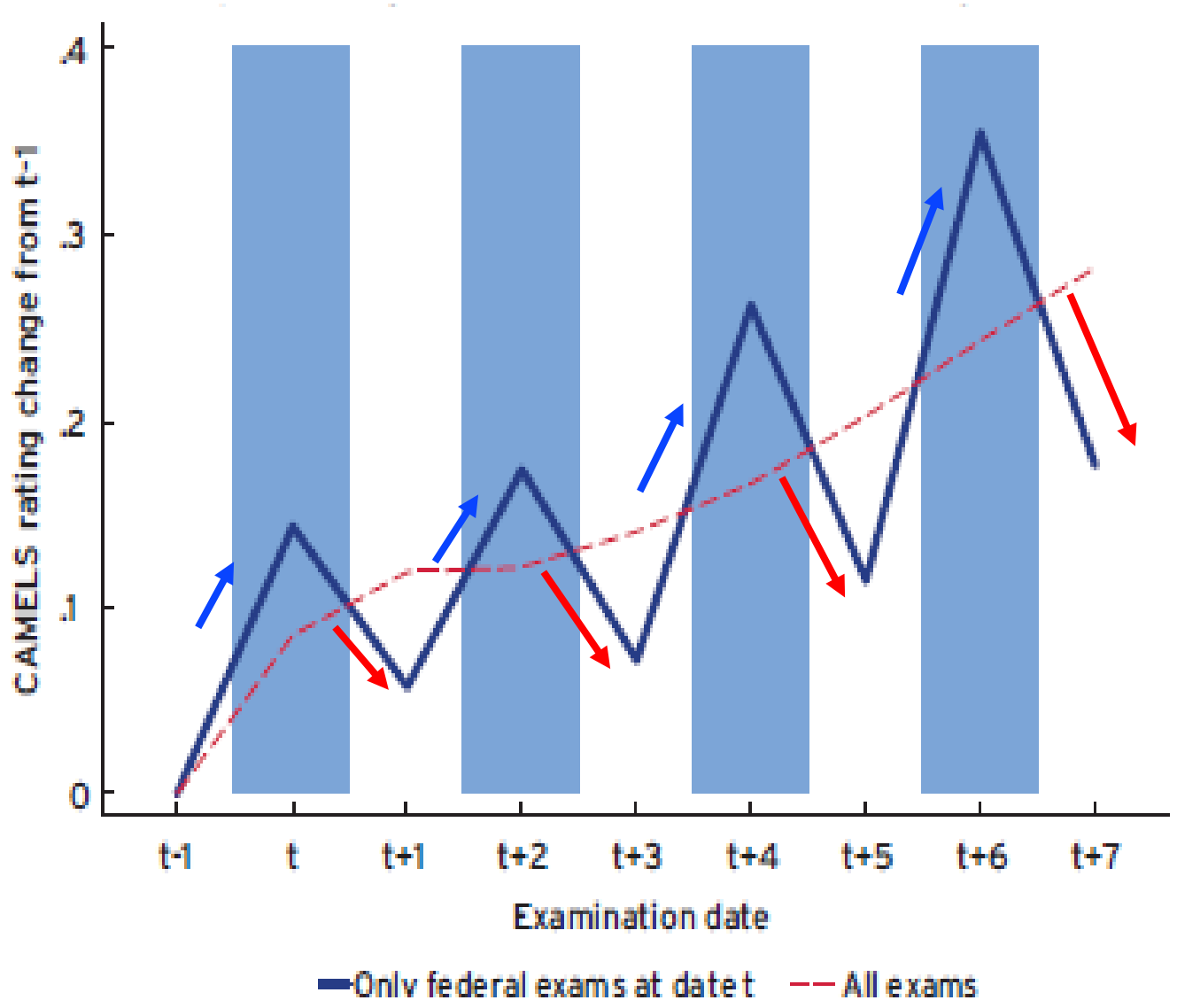
Market structure

- Affect economies of scale in supervision (more centralization.. vs local information), but also risks of regulatory capture, which varies by fewer large versus more small banks

Institutional design matters in practice

- Supervisory fragmentation introduces discretion that can be hard to correct, e.g., US Federal vs local Fig.=>

➢ Need to balance local- global as to information and objectivity



Source: Agarwal, Lucca, Seru and Trebbi (2014): "Inconsistent Regulators…"

Means and efficiency matter for SE too

- Supervision must be efficient in a narrow sense
  - Use least amounts of resources (own and supervised banks') to achieve goals
    - Political and other constraints will always limit resources (less than "first best"), need greater efficiency to increase effectiveness

➢ Review costs and gains in the various processes on a continuous basis

- Analyze steps: Identification, remedial actions, communication, …and its characteristics (in IMF language: intrusive, skeptical but proactive, comprehensive, adaptive, and final conclusive) to assess costs and benefits
- Suptech and regtech part of this, but imperfect, and regardless need to be effectively embedded in processes. Many suptech used for risk assessment, while still having oversight. Those that are not critical tend to lose attractiveness

A few SSM-specific observations

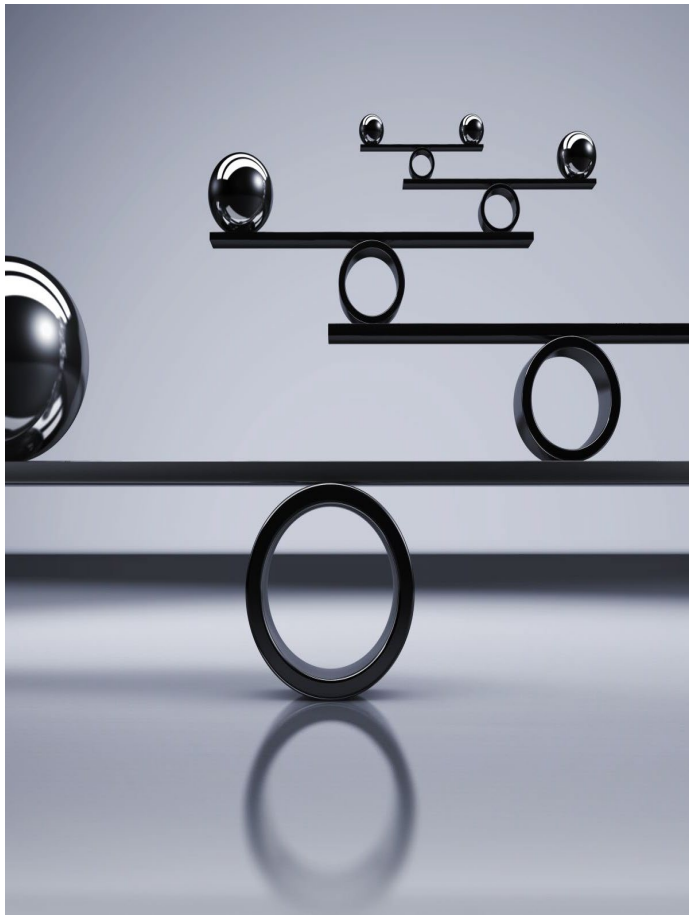
- Overall, SSM seems legally well supported. Problem may be in:
  - Coverage: smaller banks excluded, banks may try to avoid/escape SSM
    - "Banks shrinking below SSM comes with less credit (estimated supervisory costs is 1/3 of profits)"
  - (Soft) information flows harder with mixed, federal structure, end up "too local"
- Imperfect banking union (above). Other goals (e.g., climate) can distract
- Data and disclosure
  - Is all information available used, not just supervisory data (Anacredit, financial markets, collateral, MPOP, etc.)? Role of Big Data, AI, ..? Scope to cross some silos?
  - Disclosure still limited, e.g., hard to get a common set of data
- Efficiency of supervisory process and costs to the banks
  - EU has many supervisors ...relative to ROW; consider efficiency and cooperation more
  - Balance qualitative vs quantitative: what is relative impact and costs?
    - Career path of supervisors. What is the gain of suptech and regtech?

Stepping back: SE is a balancing act

- Asymmetries (Type 1 vs Type 2): missed failures vs too stringent
- Missed failures have obvious costs, but lenient supervision too
  - Costs vary from individual to systemic crises. Known, also recently
  - Even if no failures/crises, forbearance => zombie banks/firms
- But can also overdo compliance, with costs to banks, economy
  - "Evidence suggests more invasive supervision is associated with lower loan growth, but only marginally, and less profitability, also marginally."
  - Too many interventions, warnings undermine credibility (i.e., "crying wolf"), lead to other costs, instability
- SE and asymmetries more challenging than for other regulators
  - More regulatory arbitrage/endogeneity, less observability of prudential risks: thus, need to/appear more discretionary

➢ Accountability more difficult with asymmetries

  - Perhaps more than for pollution, transport safety, health



Core problem - SE is very hard to difficult to measure, ex-ante and ex-post – has several implications

More need for accountability and transparency, with asymmetries. What does it mean?

Analyze and “advertise” benefits of good supervision

- Analyze (internally), notably isolated cases to do better on systemic risk
- Advertise: e.g. US. “By limiting interest rate risk exposures and propping up the liquidity of many banks, supervisors safeguarded the banking system surrounding the monetary tightening episode of 2022. .. most supervisory effects are hidden, given the confidential nature of bank supervision. In other words, while failed banks get the headlines, the untold story is that many more banks are often likely saved by the concerted efforts of bank supervisors.” (Gopalan and Granja, 2023)

Be transparent with cases of poor supervision (failures as well as zombie banks)

- Forensic studies, independent reviews, but with a lag for individual cases
- Too few failures may also be an indicator of less effective supervision

Consider political economy of accountability and its asymmetries

Reviews of recent events confirm some of the (well-known) drivers

Much are (old) lessons about “governance”

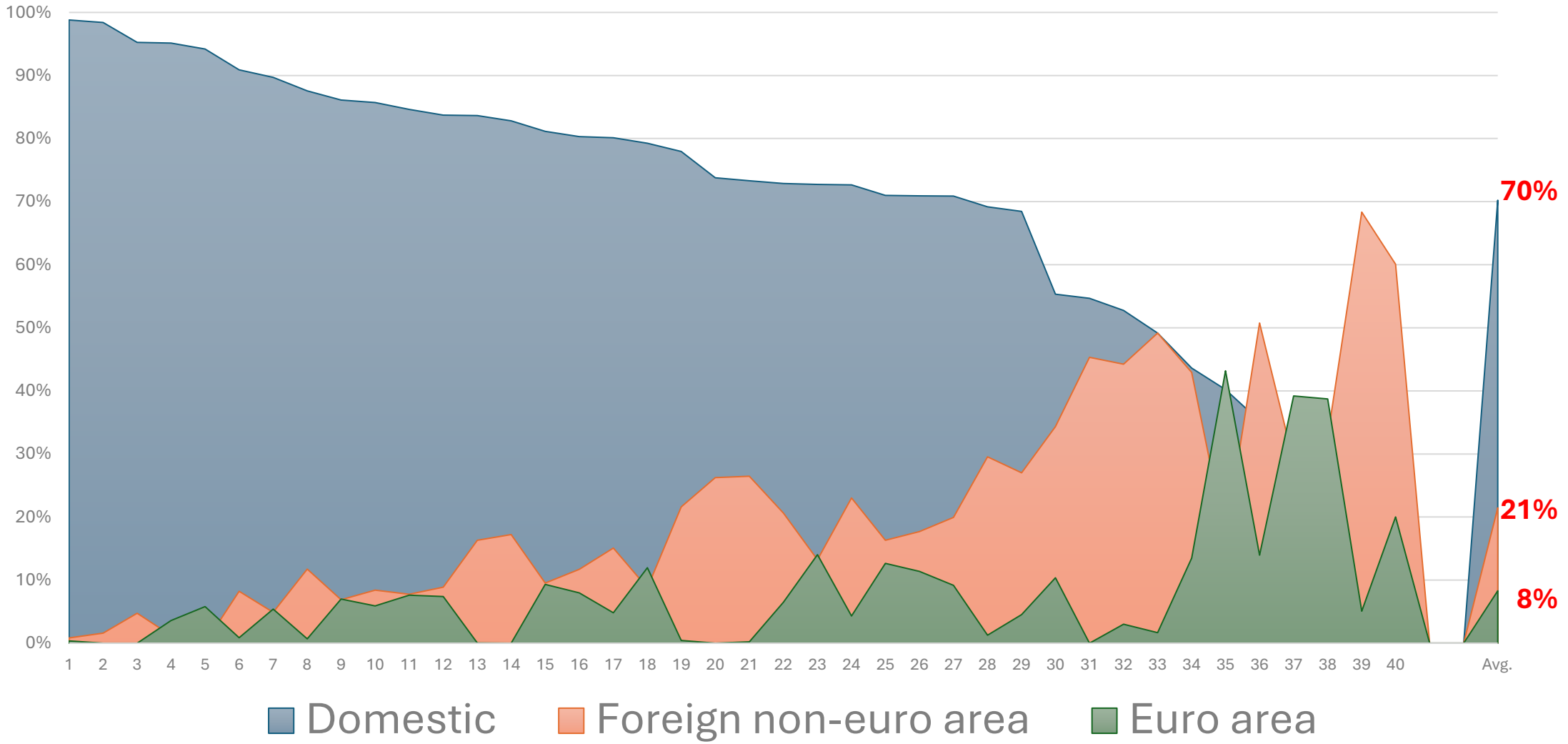
- External and internal: “too little, too late”, due to too little power, too little follow-up, related in part to limited “expertise” (staffing and turnover
- Internal: too compliance oriented, group-thinking, weak culture

Too much fragmentation, too little cooperation

- Fragmentation, e.g. US: national; EU: supranational
- Overall cooperation: international < supranational < national
  - No aligned incentives inter/supra-nationally (without burden sharing, fiscal union
  - EU: Incomplete Banking Union, makes euro area banks: 1. national > 2. international > 3. intra-euro (not 1. national > 2. intra-euro > 3. international)

European banks: Domestic > Non-Euro area > Euro area

(% of total exposures of 41 largest European banks)



Source: Geneva Report 27. *Much Money, Little Capital and Few Reforms: The 2023 Banking Turmoil.*

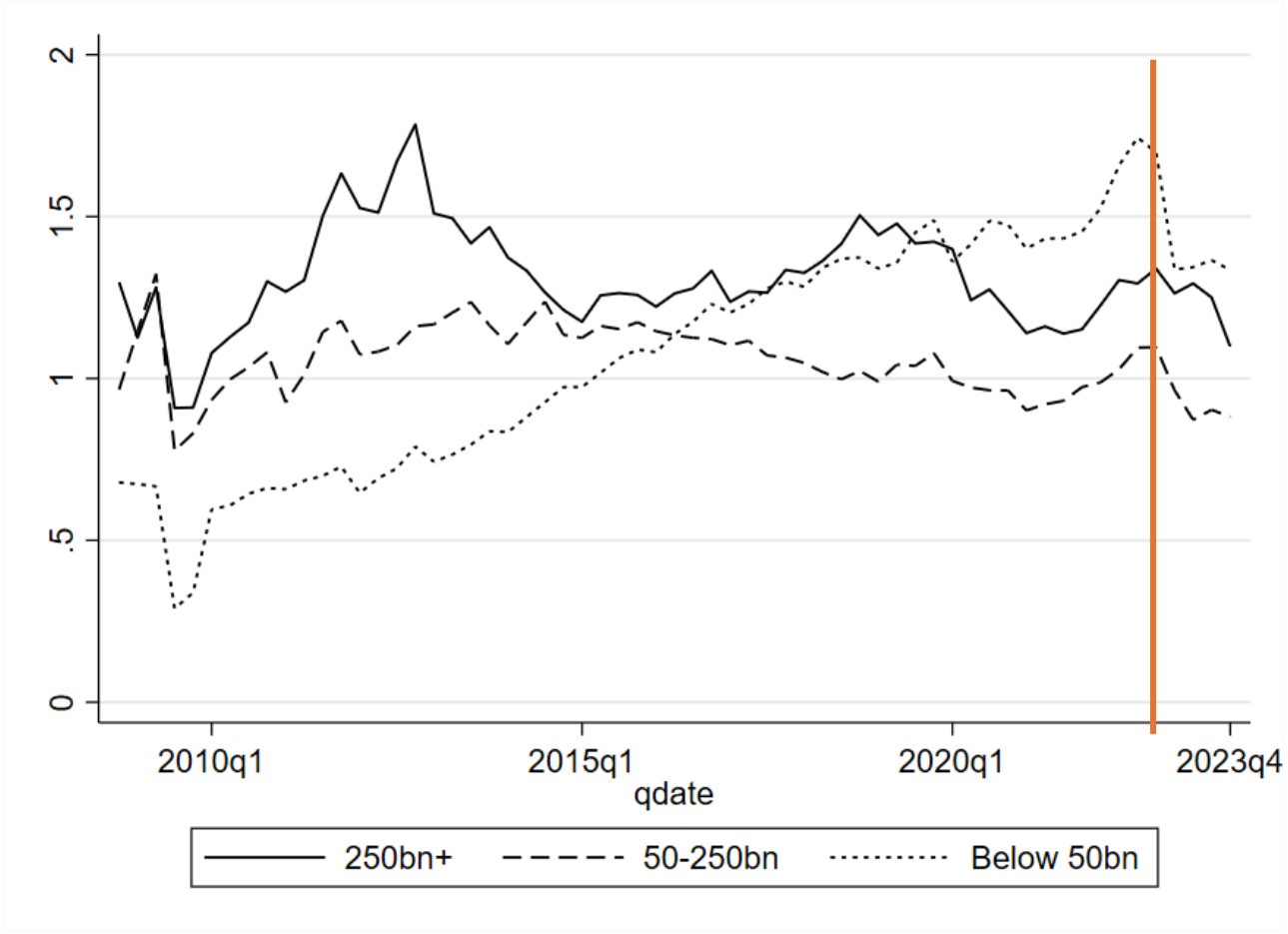
Events also showed new (or forgotten) lessons

- Do more with existing data, triangulate more
  - Ex-post: vulnerabilities documentable, runs traceable with existing (triangulated) data
  - More comparative work, publish outcomes, data available for market discipline
- More internal challenge functions and revisit accountability
  - Learn from isolated small cases and publicize
  - Hard for larger ones (G-SIBs, systemic crises), but still some recurrences
- Work closer with LoLR function
  - Data there, work w/ monetary operations, e.g., collateral flows
- Consider monetary policy more for risks and stability
  - This time QE/APP created risk on liability side (notably US, liquidity dependence
- Think harder on market structure, macroprudential view
  - Besides TBTF, too many to fail (TMTF) competition, profitability, risks, contagion

Acharya, Chauhan, Rajan, Steffen (2024) Showed Banks' Liquidity Dependence

Post GFC saw a ratcheting-up of uninsured demandable deposits (UDD) in (smaller-sized) US banks

UDD / (Reserves + Eligible Assets)



Liquidity dependence

» Increase of deposits (mechanical) when Fed reserves increased during QE

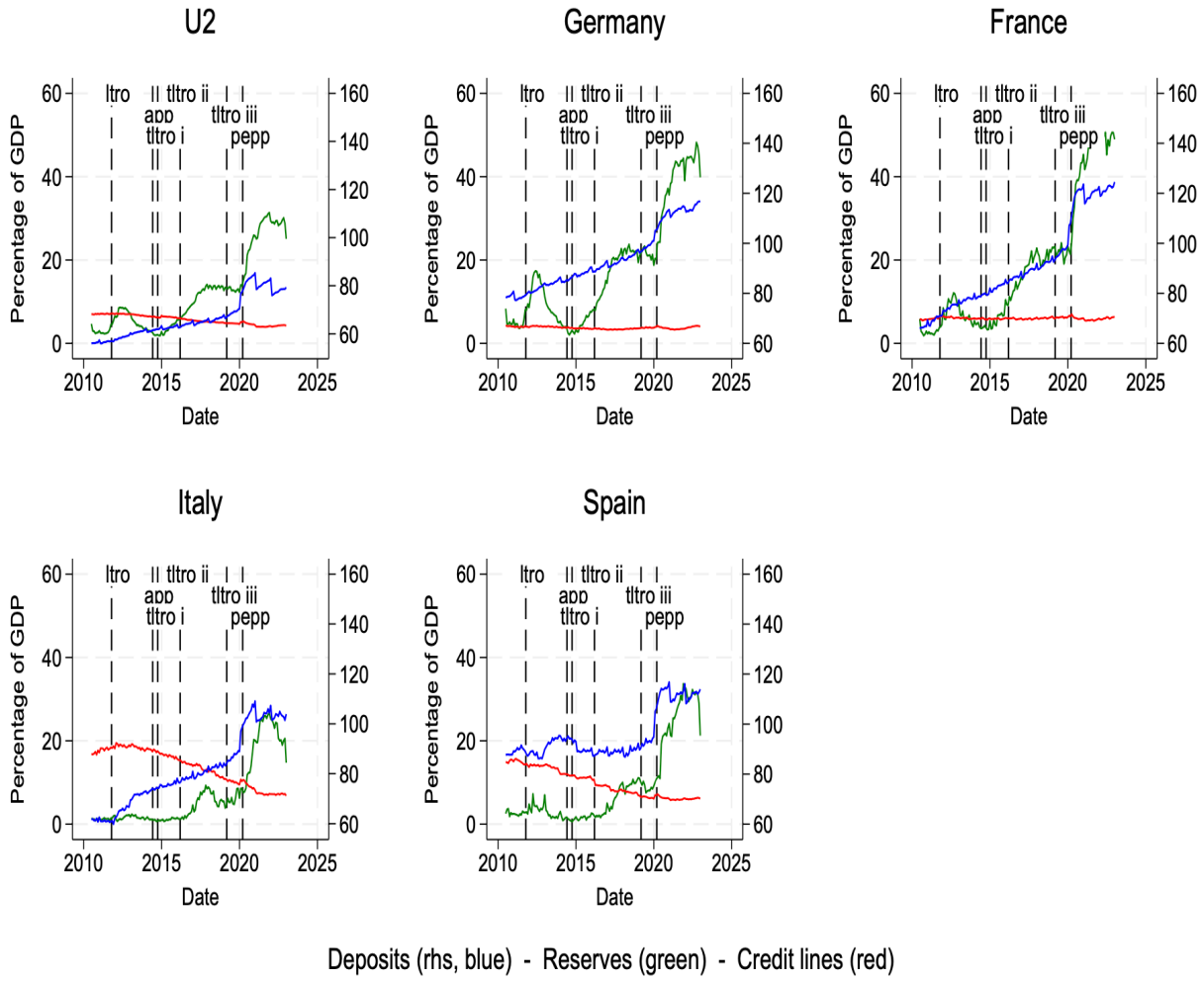
» Shift to uninsured demand deposits (UDD); no decrease during early QT

» Asymmetric distribution of liquidity; smaller banks more "liquidity dependent"

Source: Acharya et al (2024)

Euro monetary policy added to vulnerabilities similarly (by market

Impact of ECB's injection of liquidity after GFC



Demandable Claims

» Increase in reserves (% GDP) after APP episodes

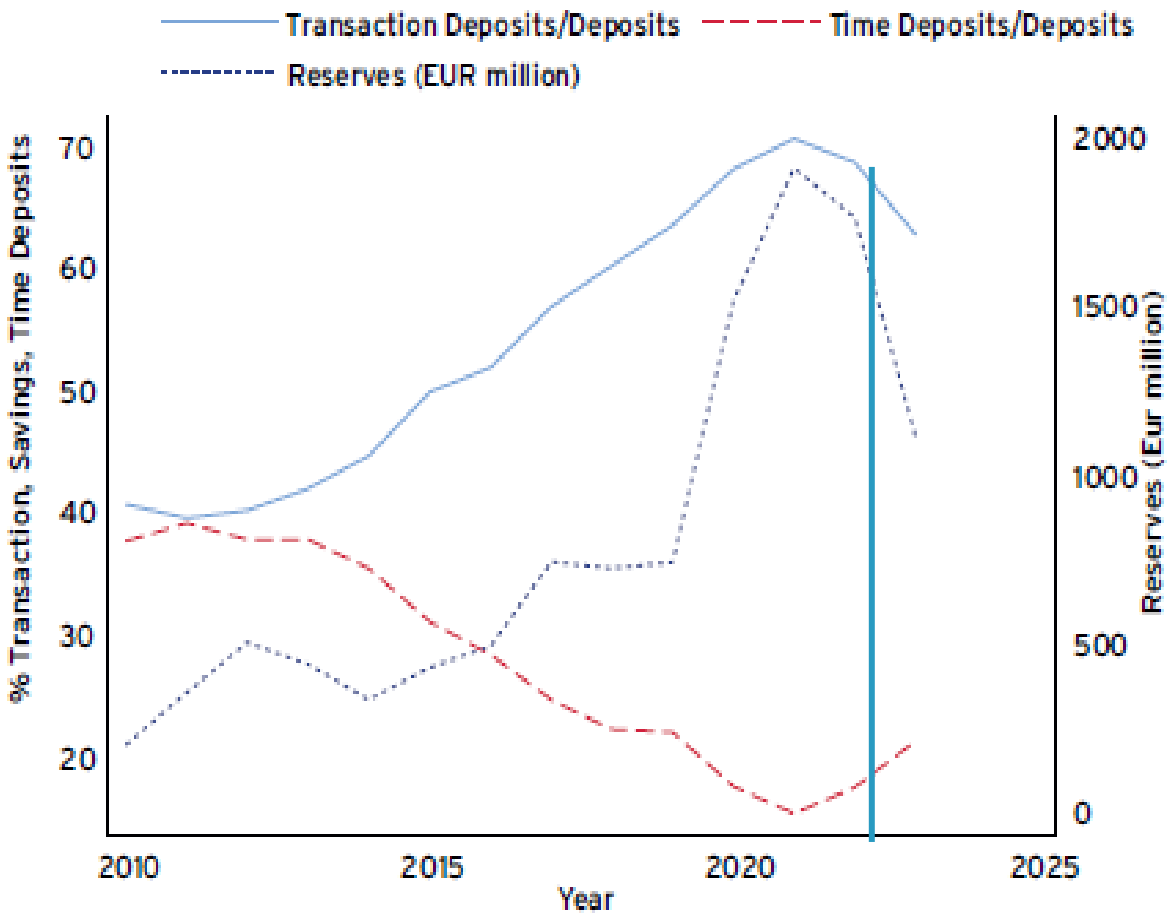
» Expansion of deposit base (similar to the US)

» If anything, decline in credit line commitments

Source: Geneva Report 27. ***Much Money, Little Capital and Few Reforms: The 2023 Banking Turmoil.***

Euro bank level data also showed buildup of deposits vulnerability

Like the US, banks increased transaction deposits after APPs (bank-level), but limited liquidity stresses



Source: Capital IQ, annual reports

Transaction vs Time Deposits

» Increase in deposits correlated with increase in reserves

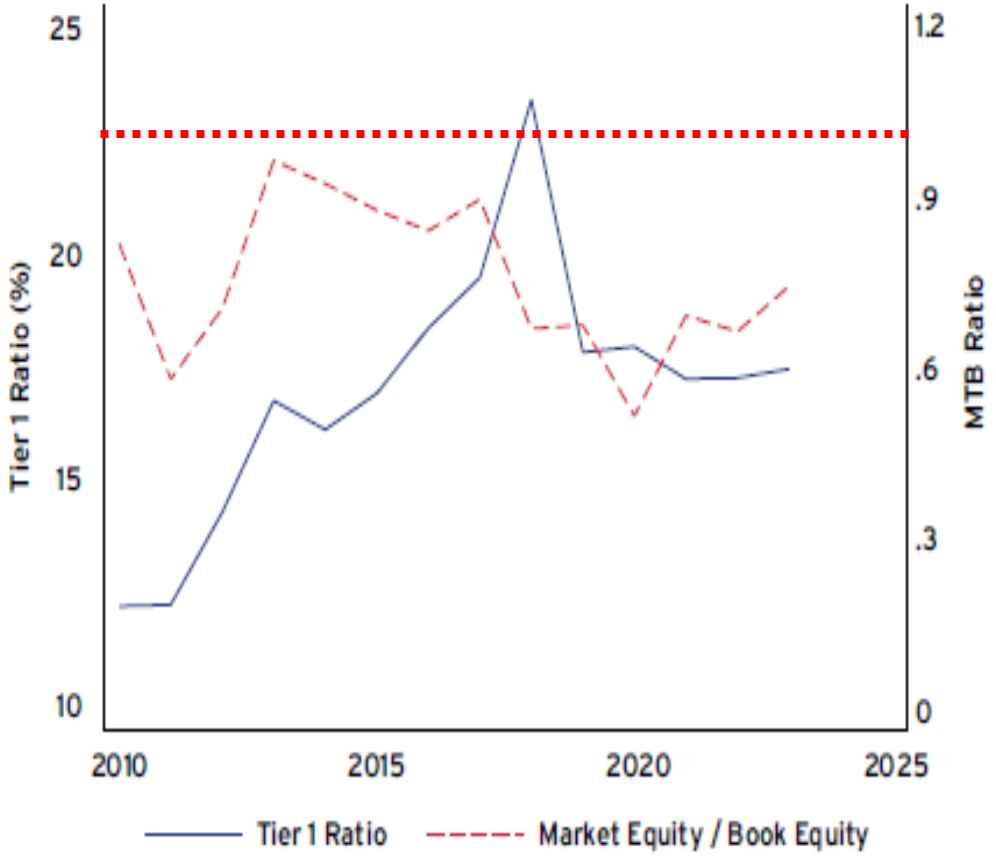
» Shift from time to demand deposits, reducing maturity of deposits

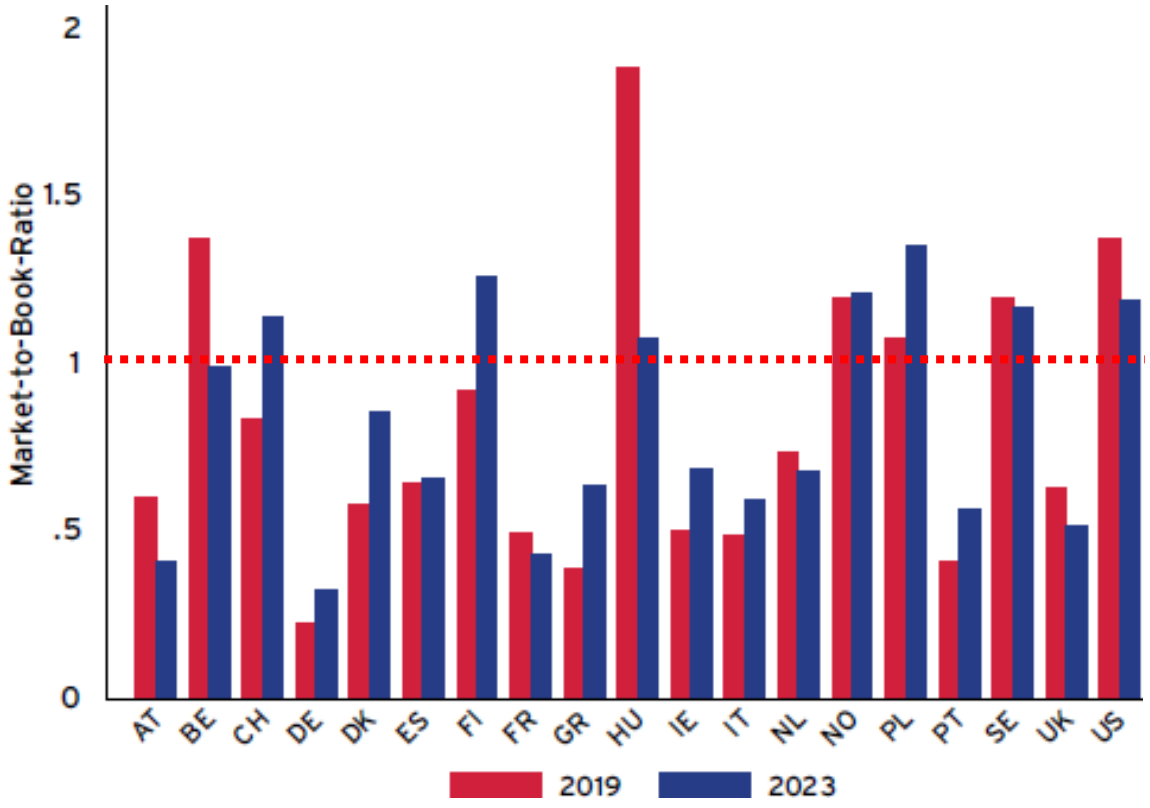
» Financial stability risks increase due to increase in runnable deposits

» But ample liquidity, limited interest rate risk, and good supervision prevented runs

Source: Geneva Report 27. ***Much Money, Little Capital and Few Reforms: The 2023 Banking Turmoil.***

But market-to-book-ratios still generally below 1 and less than US
Reflects risks, low profitability, inefficiencies, due to market structure
Credit Suisse shows low MTB <=> slow decline, yet sudden death…





Source: CapitalIQ, own calculations

Supervisory effectiveness challenges going forward. Some known, other less so…

- Growth of non-banks in financial intermediation spilling over to banks
  - Many other variations on Goodhart's law, e.g., private credit today
  - ➢ Work, some underway on NBFIs, to be a great(er) priority
- Liquidity and faster runs given technology and social media spread of information
  - Makes financial ratios less useful (confidence is hard to assess
  - ➢ Worry and think more about contagion
- Rapid digitalization more generally make for new risks
  - New products, e.g., cryptocurrencies, DeFi, unknown effects of AI
  - Worse cyber risks, given new state actors
- Lack of international cooperation given (geo-)fragmentation

➢ Versatility and adaptability crucial

➢ Structurally: larger buffers more important given larger systems, higher volatility