



Bank regulation: past, present and future

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Introduction

- ❑ Banking has changed dramatically in the last decade:
 - Great Financial Crisis, 2008
 - Sovereign Debt Crisis, 2011-12
 - Basel III
 - Banking Union, Bank Recovery & Resolution Directive (BRRD), ...

- ❑ The policy response to the crises was monumental
 - It was urged by (legitimate!) public concerns on 'bad' finance.

- ❑ Today we can take stock of this process:
 - How do the reforms stand the test of time so far?
 - Which questions remain open for current and future policy makers?



Plan of the talk

❑ A primer on bank regulation

❑ Lessons from the crisis:

- Capital
- Procyclicality
- Liquidity risk
- Resolution rules

❑ Three open questions:

- Bail-in mechanisms
- State interventions
- Optimal bank capital

❑ Conclusions

A primer on bank regulation

- ❑ Banks perform a crucial role in the economy:
 - screen/monitor long-term borrowers
 - provide short-term liquidity (demand deposits, credit lines)

- ❑ The maturity mismatch exposes banks to ‘runs’
 - ➔ **Deposit insurance:** prevents panics and ensures stable funding

- ❑ But DI makes risk shifting problems more acute: depositors have no incentive to monitor their banks.
 - ➔ **Capital requirements:**
 - a) Improve incentives by increasing “skin in the game”
 - b) build up loss absorption capacity.

- ❑ What did we learn on this from the recent crises?

Lesson 1: Bank capital was too low

- ❑ Capital was low relative to the banks' risk exposures
- ❑ Capital is the foundation on which banks build up leverage

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Sutyagin House, 2007 (Shin, 2016)



A	L
Loans	Deposits
Securities	Bonds
Cash	Equity



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A	L
Loans	Deposits?
Securities	Bonds?

Shortfall →

A red dashed arrow points from the 'Securities' box to the 'Deposits?' box, and a solid red arrow points from the 'Shortfall' text to the 'Bonds?' box, indicating a funding gap.

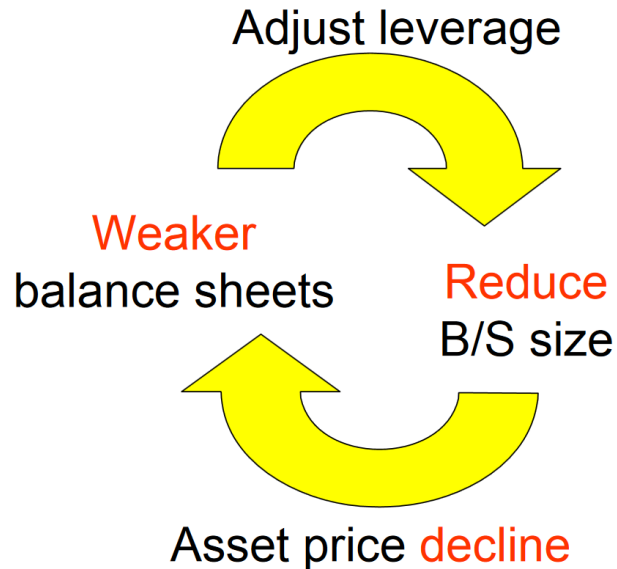
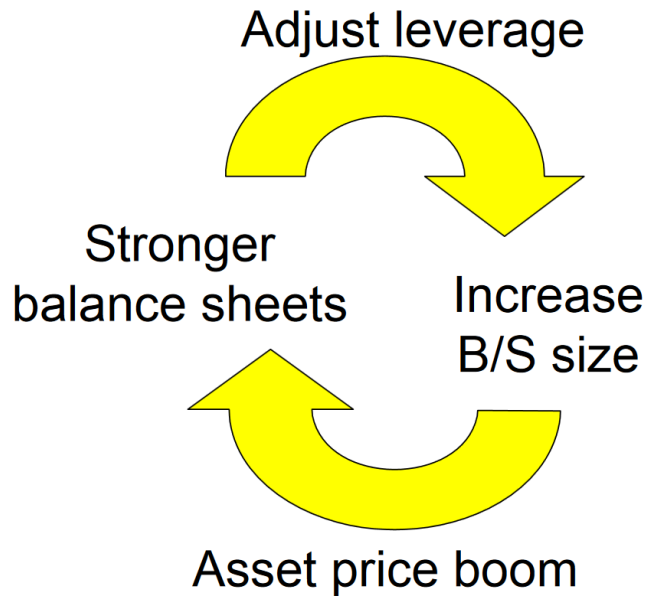


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- ❑ Capital was low relative to the banks' risk exposures
- ❑ Capital is the foundation on which banks build up leverage
- ❑ **Policy response:**
 - higher capital ratio (8% RWA)
 - new leverage ratio (3%)
- ❑ Is this enough, too much, about right? More on this later.

Lesson 2: The financial sector is procyclical

- Banks' balance sheet amplify the economic cycle:



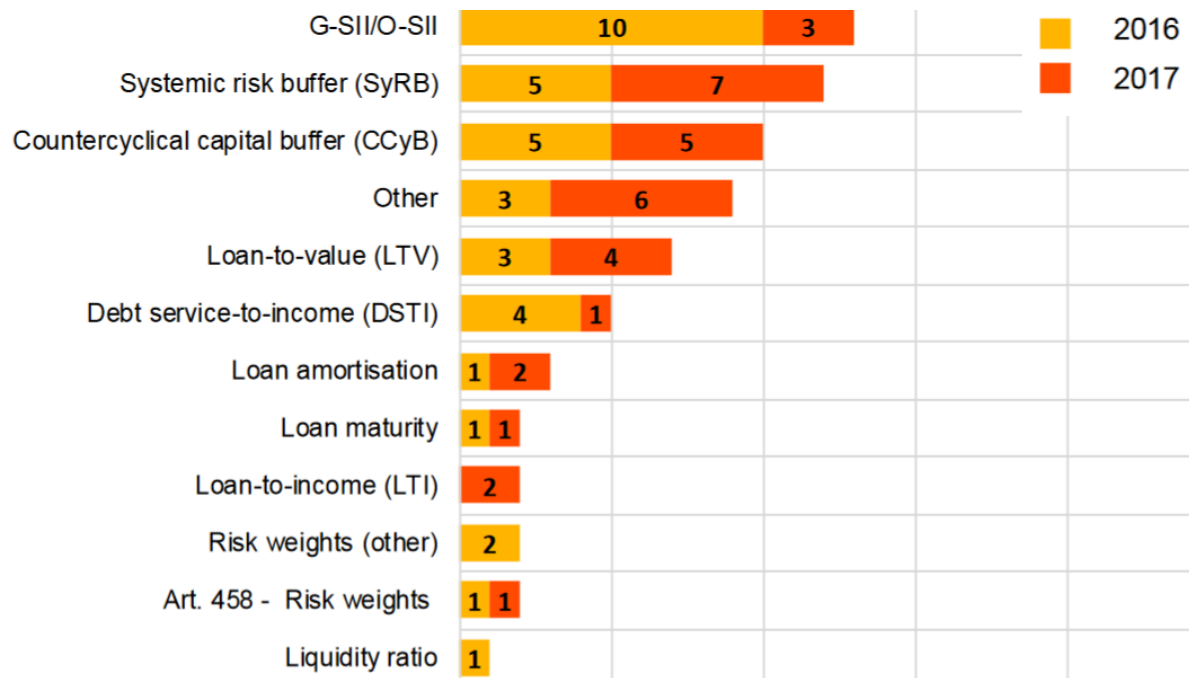
T. Adrian, H. Shyn (2009), Liquidity and Leverage, NY Fed Staff Report 328



Lesson 2: The financial sector is procyclical

- ❑ Banks' balance sheet amplify the economic cycle.
- ❑ **Policy response: new macroprudential instruments.**

Recent macroprudential interventions in Europe:

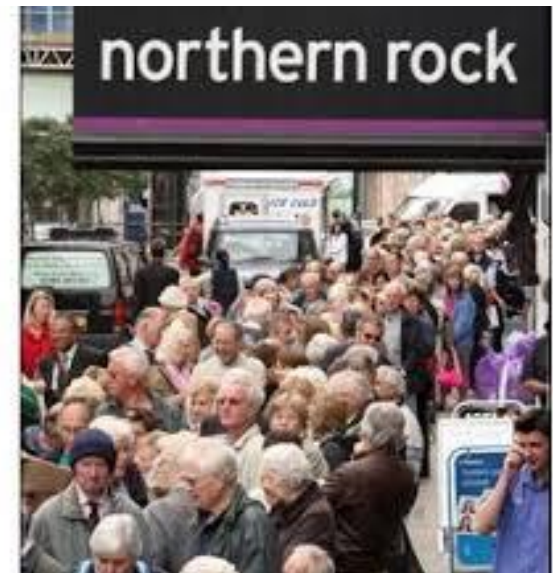
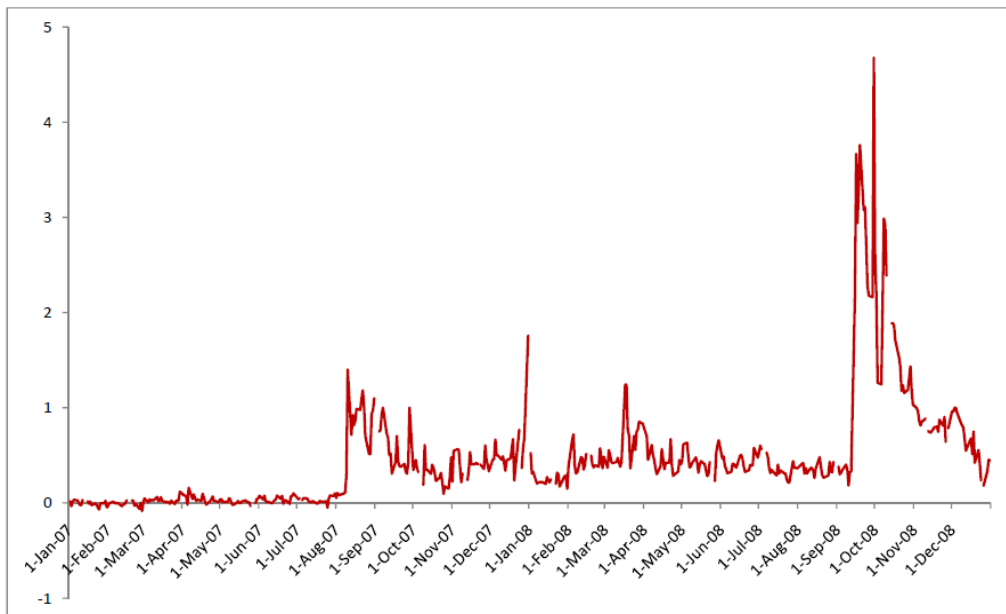


ESRB (2018), A Review of Macroprudential Policy in the EU

Lesson 3: Liquidity risks were neglected

- ❑ Banks were overly exposed to illiquidity risks
 - Lehman rolled over 25% of its debt every day through overnight repos.
- ❑ Short-term creditors can quickly run for the exit (or entrance!)

Overnight Asset Backed Commercial Paper Spread



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- ❑ **Policy response: new liquidity standards (NSFR, LCR)**

Stability of different funding sources



Lesson 4: Resolution rules are critical

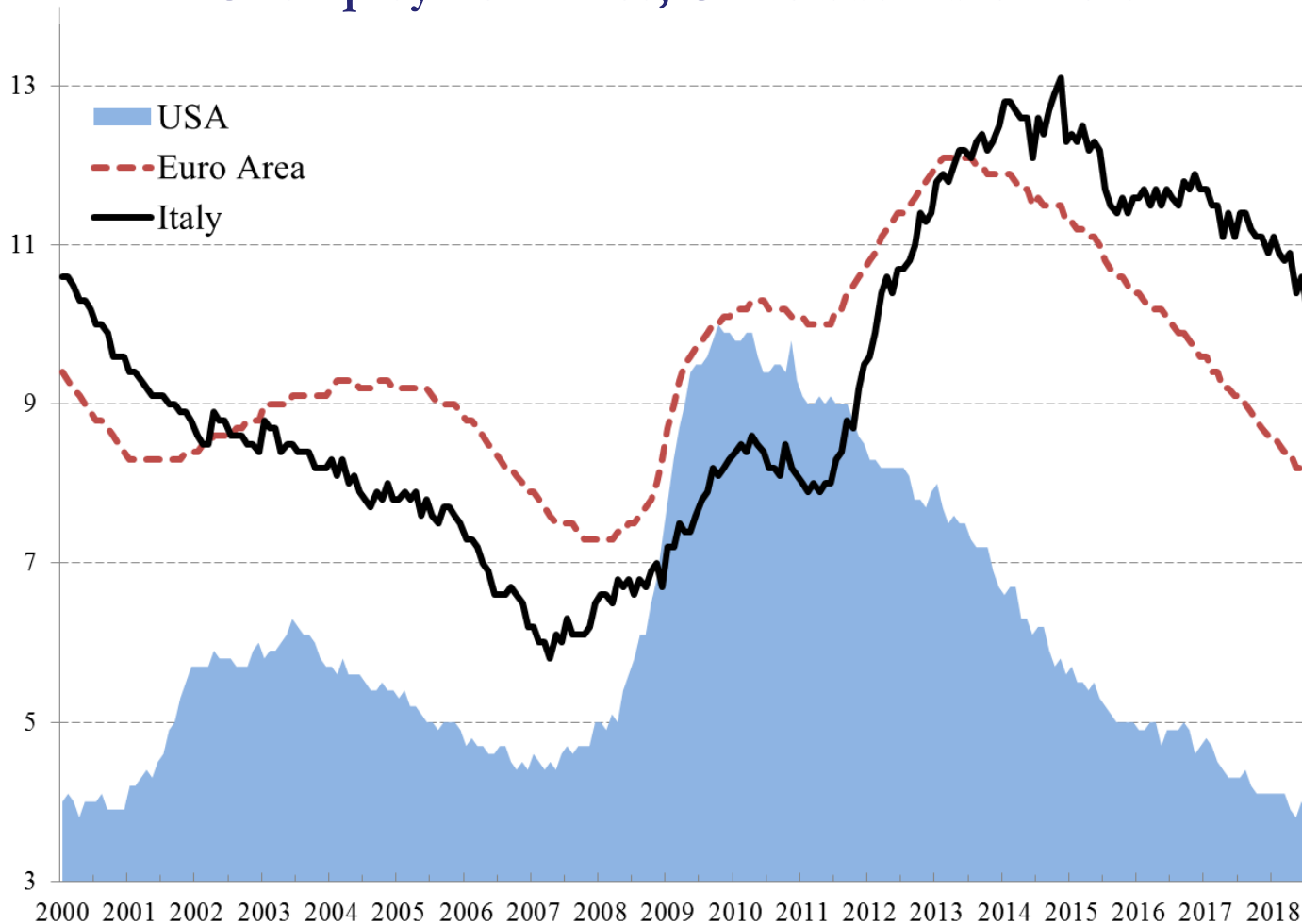
- ❑ Crises must be dealt with rapidly and efficiently
- ❑ The U.S. did it:
 - i. Stress tests + TARP recapitalization for big banks
 - ii. FDIC resolution for small banks
- ❑ Europe did not, due to:
 - i. lack of resolution frameworks and credible fiscal backstops
 - ii. domestic supervision of banks that operate across the EU

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- ❑ **Policy response in the EU: Banking Union and BRRD**

The real cost of the crises

Unemployment rates, US versus Euro Area:



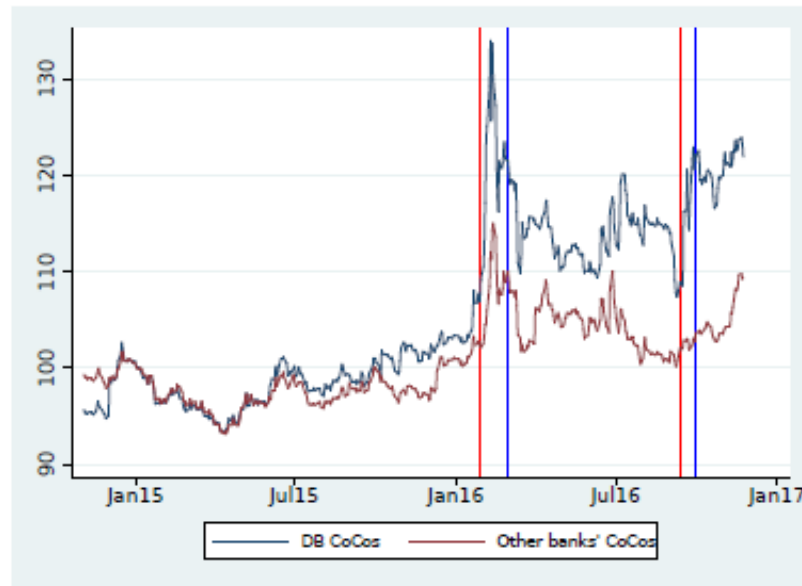
Open questions

- ❑ The regulatory response required unprecedented global efforts
- ❑ The 10 years since Lehman give us a new perspective on what has been done, and on what might need to be done next.
- ❑ I will focus on three issues:
 - Will the bail-in principle work as intended?
 - What is the role of the State in bank resolutions?
 - How much capital should banks hold?

(1) Will the bail-in principle work as intended?

- ❑ Skeptics argue that burden sharing rules might have unintended consequences: market volatility and contagion.
- ❑ Recent experiences with Contingent Convertible Bonds (CoCos) suggest they could be right.

CoCos' yield of European banks



- ❑ What would happen in a crisis?

(1) Will the bail-in principle work as intended?

- ❑ The FDIC has successfully dealt with many failing banks:
 - It does not rely on convertible bonds
 - It has great(er) flexibility in using public funds to support market solutions
 - It can resort to public funds without imposing haircuts on creditors.

Figure 6.1. Number of FDIC Bank Resolutions by Year

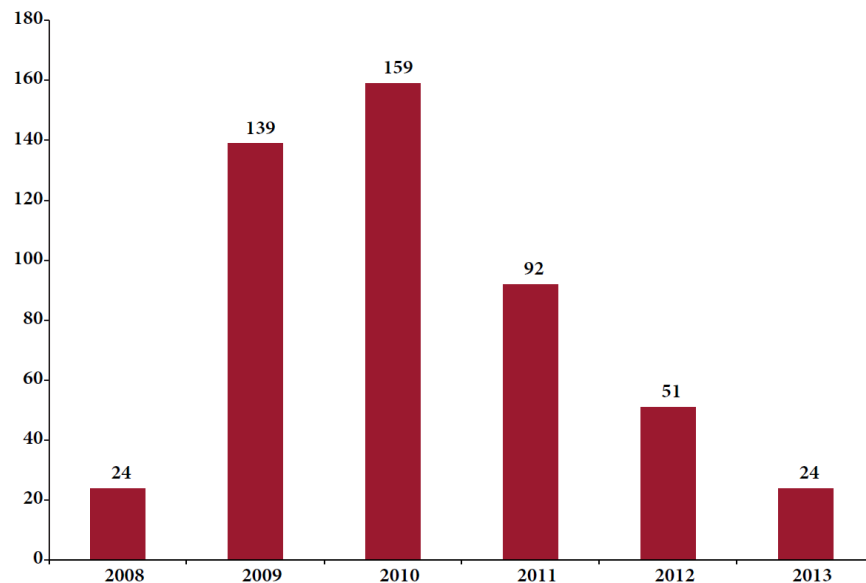
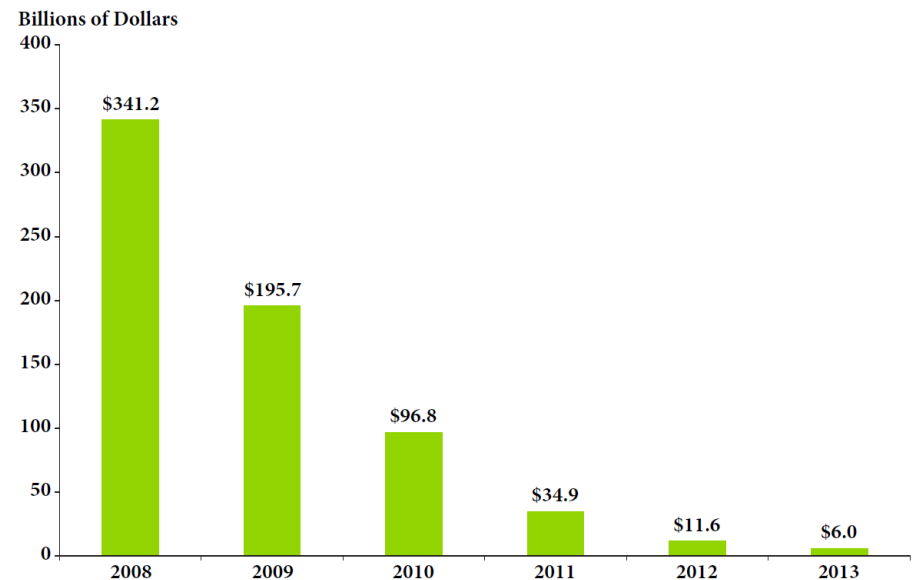


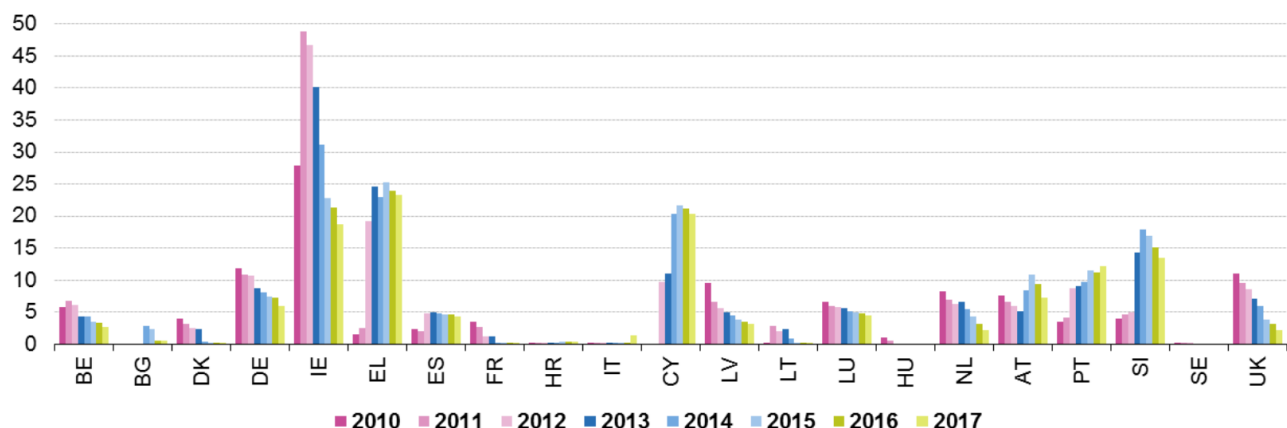
Figure 6.2. Total Assets of Failed Banks by Year of Resolution



FDIC 2017, *Crisis And Response: An FDIC History, 2008–2013*

(2) What is the role of the State in bank resolution?

- ❑ Limiting public support can reduce moral hazard problems.
- ❑ Italy has been “virtuous” in this respect:



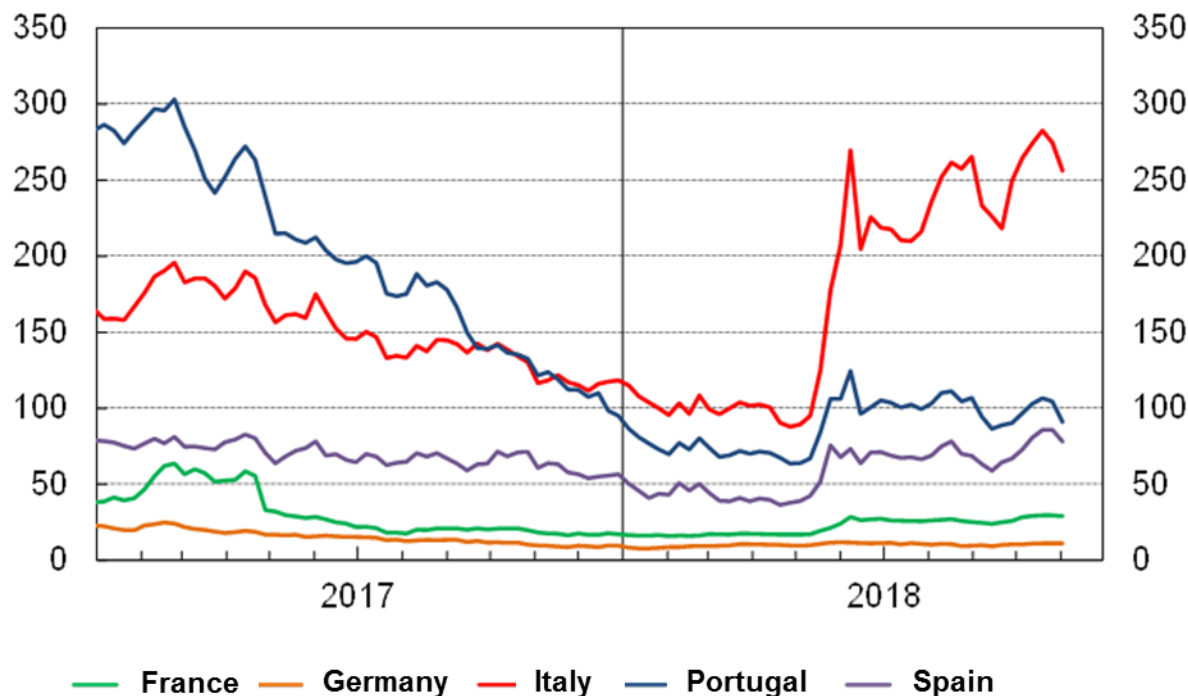
Impact of interventions on government debt (% of GDP) [Add source]

- ❑ But should public support be ruled out altogether?
 - The GFC was triggered by a non-bailout (Lehman)
 - Bailouts can be “socially optimal” in some cases
 - Bailouts can also yield profits for the State: \$15 billion in the case of TARP
 - Bailouts can help avoiding the uncharted territory of bail-ins

(2) What is the role of the State in bank resolution?

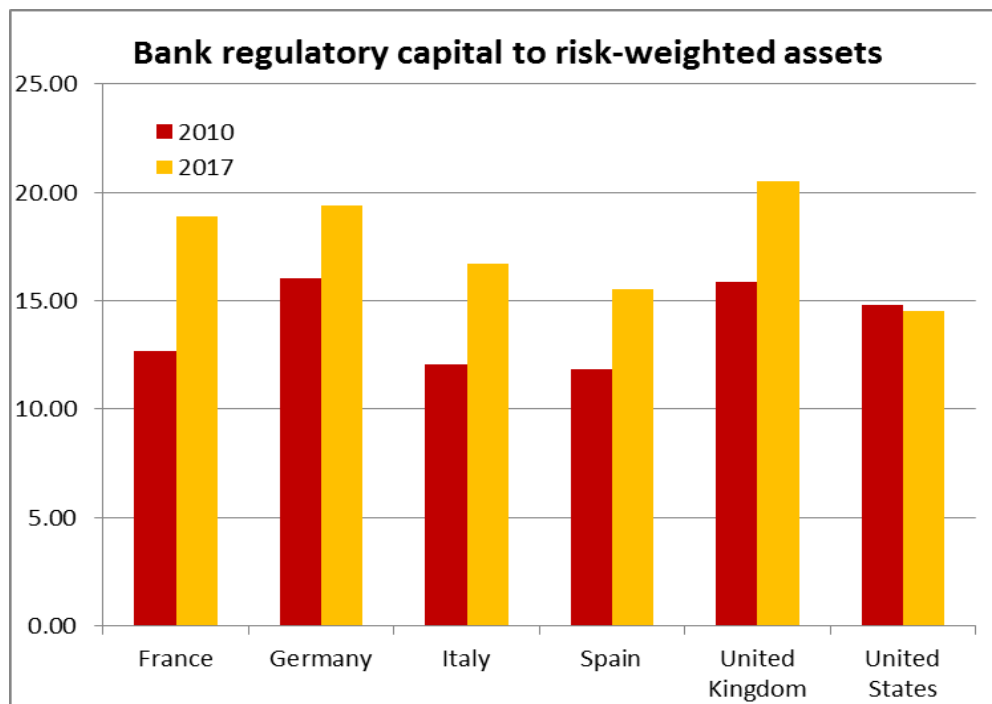
- ❑ In a monetary union this question is more complicated.
- ❑ (Some) risk sharing is surely optimal. But it needs fiscal discipline to be politically and economically feasible.

Sovereign bond yields in the Eurozone



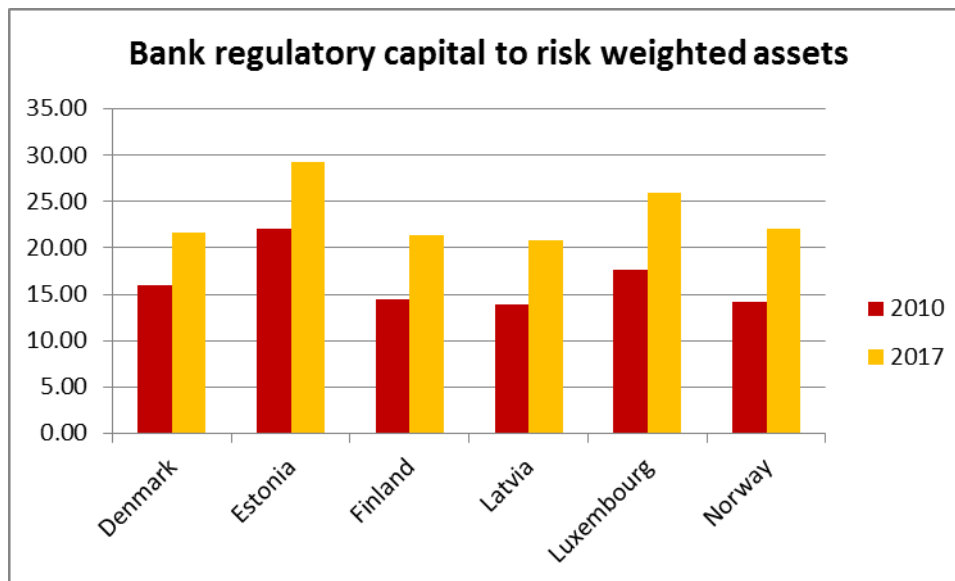
(3) How much capital should banks hold?

- ❑ **K^* optimizes a tricky tradeoff:**
 - $\uparrow K$ reduces public involvements and the social costs of bankruptcies...
 - ... but increases the cost at which banks lend and create liquidity.
- ❑ Estimates of K^* around 20-25% are not uncommon
- ❑ We are going in that direction....



(3) How much capital should banks hold?

- ...some countries are already there



- The intricacies of bail-ins make K even more desirable.
- The increase in K should be *as fast as possible, but not faster*

Conclusions

- Post-crisis regulation makes banking sector safer
- But this is not the end of the road:
 - How do the new rules work in “general equilibrium”?
 - How will the financial sector adjust to them?
 - How can they be improved?
 - Should good, old capital play a more important role?
- Perhaps being tougher “ex ante” (capital requirements) and more lenient “ex-post” (use of public funds) would be better.
- Need capital markets. Must study the financial strategies of NFCs. Why NFCs shy away from capital markets? Severely under-researched (*Generale, Signoretti, Panetta 2018*)
- I expect new research, answers (and perhaps new questions) from tomorrow’s researchers and policy makers.

Thank you



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