

BRANDEIS INTERNATIONAL
BUSINESS SCHOOL

Regulatory Reform: A Scorecard

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WORLD
READY

The Five Pillars of Regulatory Reform

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Ensuring Resilience



1. Capital: Requirements & levels are up, but not enough
2. Liquidity: One requirement is enough \Rightarrow LCR
3. Resolution: Progress, but framework remains untested
4. Central Clearing: Need sufficient safeguards
5. Systemic Regulation: Very early days

Capital Requirements



Table 1: Comparing Basel III and Basel II Risk-weighted Capital Requirements for the Largest Systemic Banks: Impact of Basel III Capital Definition

Basel III range	8% to 10%
Basel II Baseline	4%
Adjustment for hybrid capital	-2%
Adjustment for goodwill, intangibles, deferred tax assets, etc.	-1%
Adjustment for changes in risk weights	-¼%
Effective Basel II converted to a Basel III basis	< ¾%
Source: Basel Committee on Banking Supervision (2010) and authors' calculations.	

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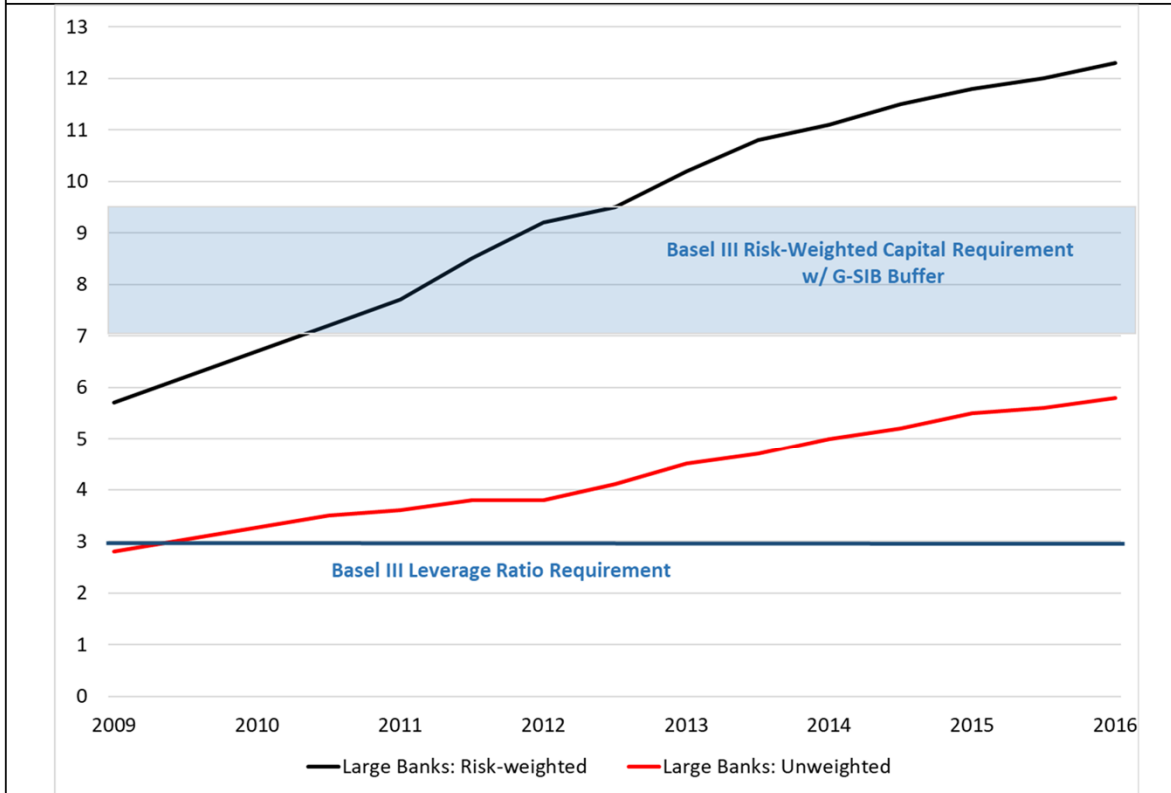
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The reason capital requirements are 10+ times higher than before the crisis is because they were so low!

Capital Levels



Figure 1: Risk-Weighted and Unweighted Capital Ratios
Fully phased-in Basel III definitions



Basel Committee Quantitative Impact Study (QIS) estimated ratio of common-equity tier 1 capital to risk-weighted assets or tier 1 capital to total assets. Data from 2011 to 2016 are from a consistent sample of 92 large internationally active banks with capital in excess of €3 billion.

Source: Basel Committee on Banking Supervision (2010 and 2017), Tables C.5 and C.36.

Capital levels are up:

Risk-Weighted: +6.6pp
Leverage: +3.0pp

Capital: Is it enough?



- Strong banks lend **more** and lend **better**!
- Social costs of higher equity are overstated (at current levels)
- TLAC is an admission that requirements are too low
- Leverage ratio guards against getting risk-weights wrong

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- Social costs of higher equity overstated (at current levels)
- TLAC is an admission that requirements are too low
- Leverage ratio guards against getting risk-weights wrong
- Solution: Raise equity requirements substantially

IMF and FRB Minneapolis \Rightarrow 20+% risk-weighted.

Liquidity Requirements



- LCR: Match **runnable** liabilities with **liquid** assets
- NSFR: Fund **illiquid** assets with **stable** liabilities

Liquidity Requirements: Simple Case



Assets	Liabilities
Liquid	Runnable
Illiquid	Stable

Simplifying assumptions

- 1) no off balance sheet exposures
- 2) assets either perfectly liquid or illiquid
- 3) liabilities either totally runnable or stable

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$$\text{LCR: } \text{Liquid} \geq \text{Runnable}$$

$$\text{NSFR: } \text{Illiquid} \leq \text{Stable}$$

Liquidity Requirements: Simple Case



- LCR $\text{Liquid} - \text{Runnable} \geq 0$
- NSFR $\text{Stable} - \text{Illiquid} \geq 0$

- Identity $\text{Total Assets} = \text{Total Liabilities} \Rightarrow$

$$\text{Liquid} + \text{Illiquid} = \text{Runnable} + \text{Stable}$$

$$\underset{\text{LCR}}{\text{Liquid} - \text{Runnable}} = \underset{\text{NSFR}}{\text{Stable} - \text{Illiquid}}$$

Simple Case: LCR & NSFR are identical!

Liquidity Requirements: Conclusions



LCR implies a shadow NSFR

- Rigorous HQLA \Rightarrow higher implied req. stable funding
- Higher run-off rates \Rightarrow lower implied avail stable funding

*We only need one liquidity requirement:
Adjust the LCR!*

Resolution



- Regime for roughly 100 banks globally, 13 in US
- Large, complex, opaque, interconnected, many jurisdictions
- Progress
 - Living wills
 - Temporary public backstops (debt-in-possession financing)
 - Increase in loss-absorbing capital
 - Single-point of entry
 - TLAC (?)

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System remains untested!

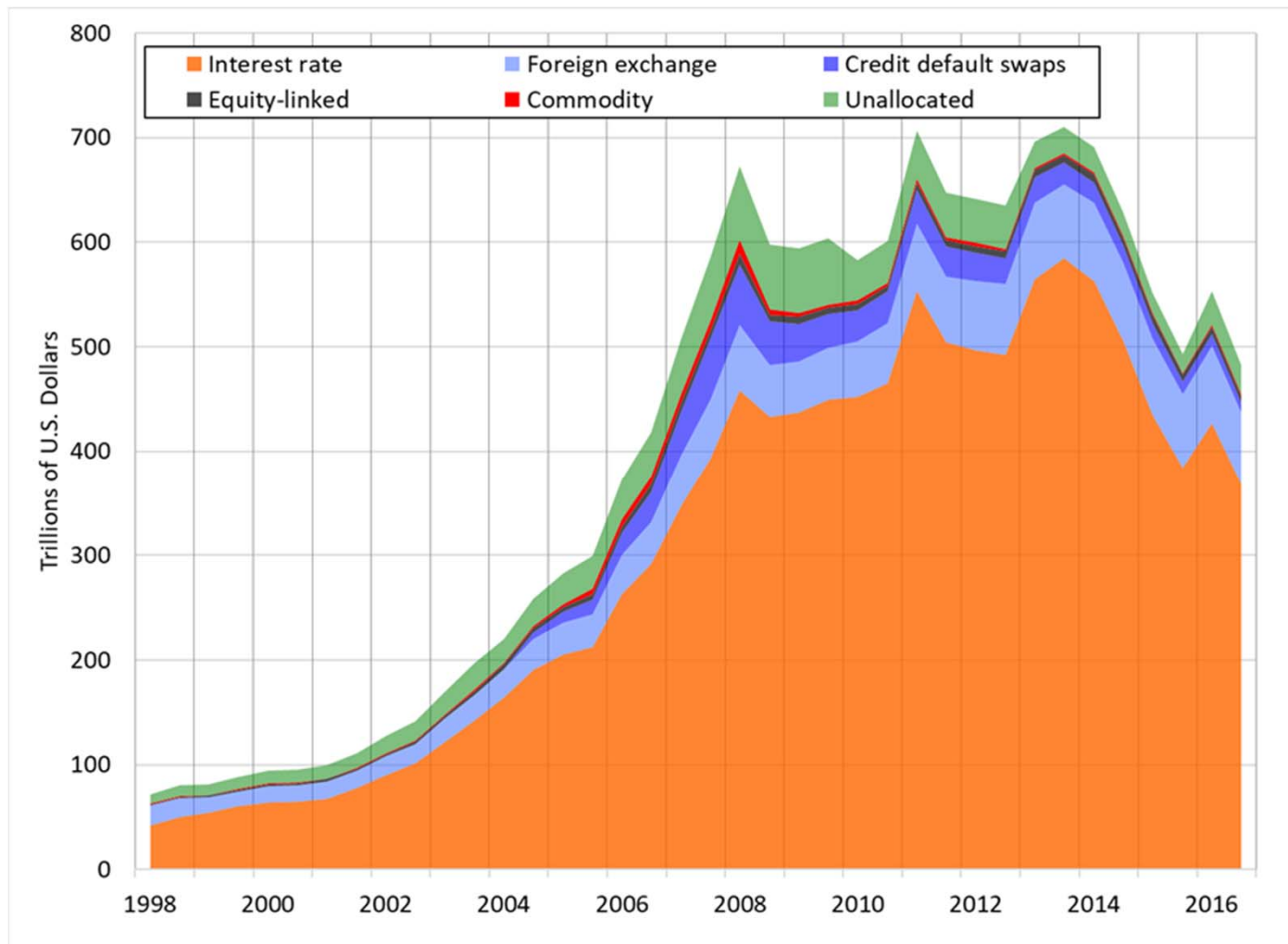
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- LTCM: August 1998 had \$1¼ tr interest rate swaps
- AIG: June 2008 had \$446 bn notional CDS
- Amaranth Advisers: Sept 2006 lost \$6bn in 3 weeks

Gross Notional Value of Derivatives

(Trillions of dollars)



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- Progress:

US: 80% interest rate & credit derivatives in CCPs

Globally: 76% interest rate swaps are in CCPs

Gross notional exposure fallen by half!

- New risks: CCPs themselves

Central Clearing: The Risks



- CME has \$30+ trillion of gross notional outstanding
 - Margin: 0.50%
 - Guarantee fund: 0.02%
 - CME's contribution: 0.0007%
- CFTC stress tests: CCPs passed two-thirds of time
- Key vulnerability: still no resolution/recovery regime (and instant recovery is what will be needed)

Should we be worried?

Systemic Regulation



- Financial stability is a common resource (non-excludable but rival)
- Agents can deplete stability through hidden actions
- Require dynamic macroprudential policy
- Long list of tools
(countercyclical capital, sectoral risk weights, LTVs, concentration & fx limits,....)

Systemic Regulation



- Adjusting tools is NOT:
 - Primarily about managing credit cycles
 - Leaning against asset price booms
- Focus of macropru: **maintaining resilience**
- Stress tests are the most powerful tool

Requires global coordination!

Is the system resilient enough?



- **Capital:** Equity requirements need to be higher (combined with shift to activity-based regulation)
- **Liquidity:** Need one, not two requirements
- **Resolution:** Assure global institutions can be resolved
- **Central Clearing:** Ensure sufficient safeguards
- **Systemic Regulation:** We need metrics, models, tools, governance structures, & international coordination

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Let's make sure that regulation remains strong!

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