Operationalising macroprudential policy

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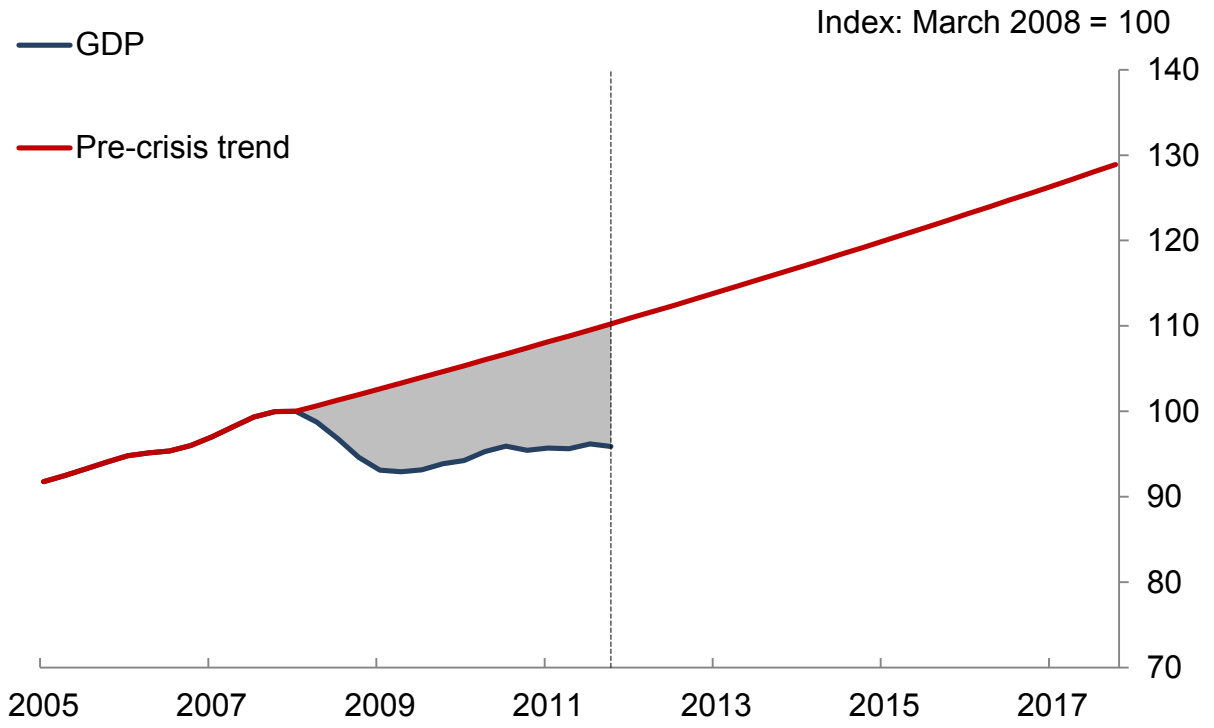
*The views expressed in this presentation are those of the presenters and not necessarily those of the Bank of England.

Outline

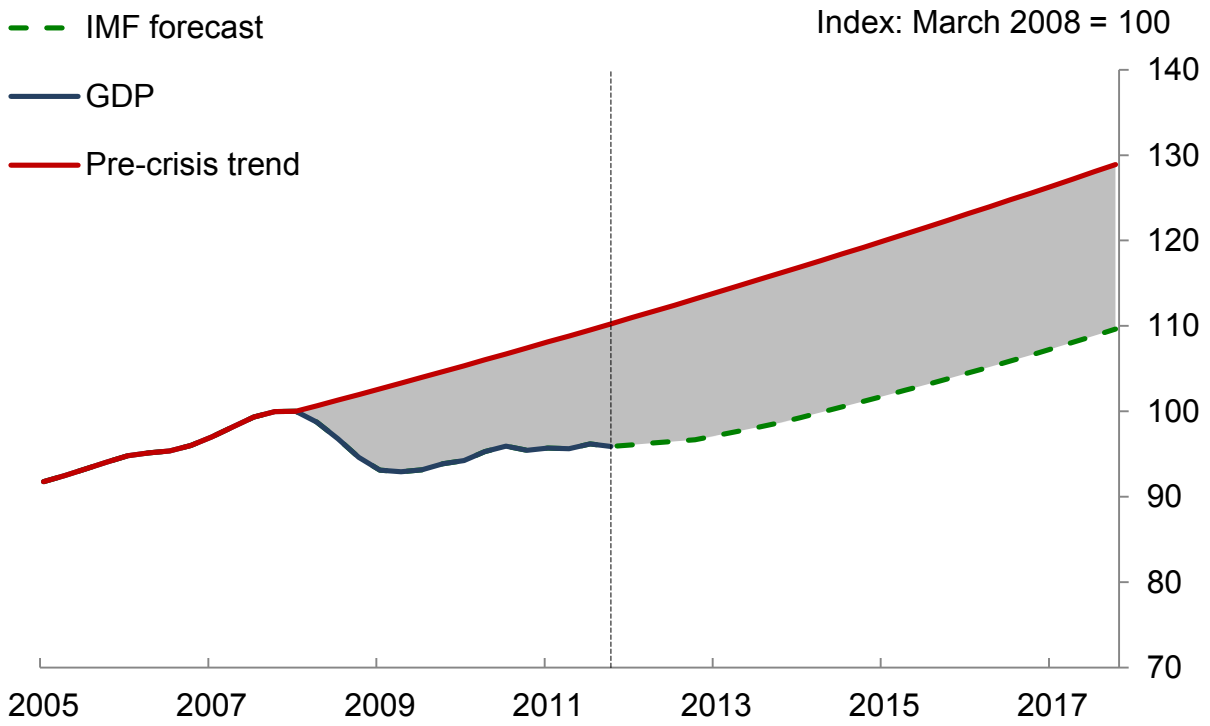
- The role of the Banks' Financial Policy Committee (FPC)
- Models used for financial policy analysis
- Where are the gaps?

Crisis Cost



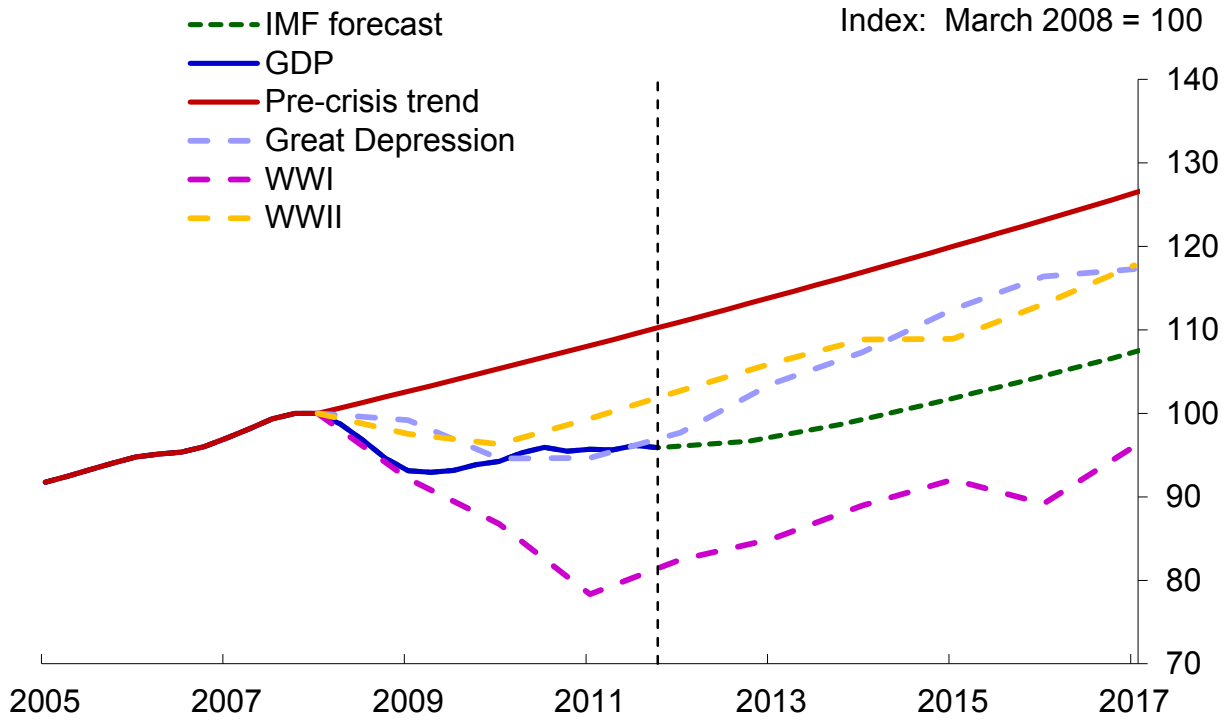
Cumulative output loss = £540bn (37% of pre-crisis GDP)

Crisis Cost



Cumulative output loss = £2 trillion (139% of pre-crisis GDP)

Crisis Cost



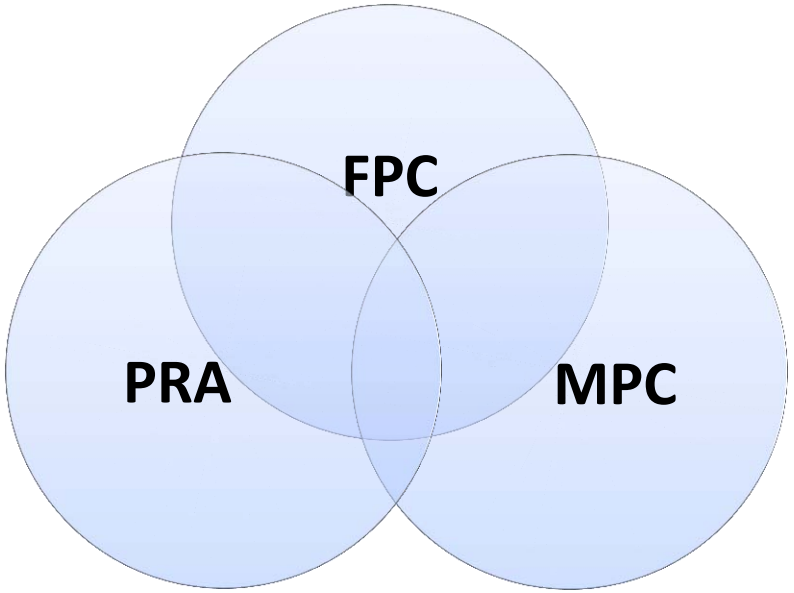
Only WWI was more costly

The role of the Financial Policy Committee

Role of the Financial Policy Committee (FPC)

- FPC set up to take a top-down macroprudential view

- Mandate to "protect and enhance the resilience of the UK financial system"
  - Subject to that, support growth and employment



- Includes members of the Bank's executive, microprudential heads, and externals:
  - Non-voting HM Treasury representative

FPC's powers

Microprudential regulators

General Recommendations	Comply or Explain Recommendations	Directions
• eg to HM Treasury over regulatory perimeter	• Better suited for tackling structural, cross-sectional risks	• Binding instructions

- Directions carry greater statutory force – so which specific tools?

Which macroprudential tools?

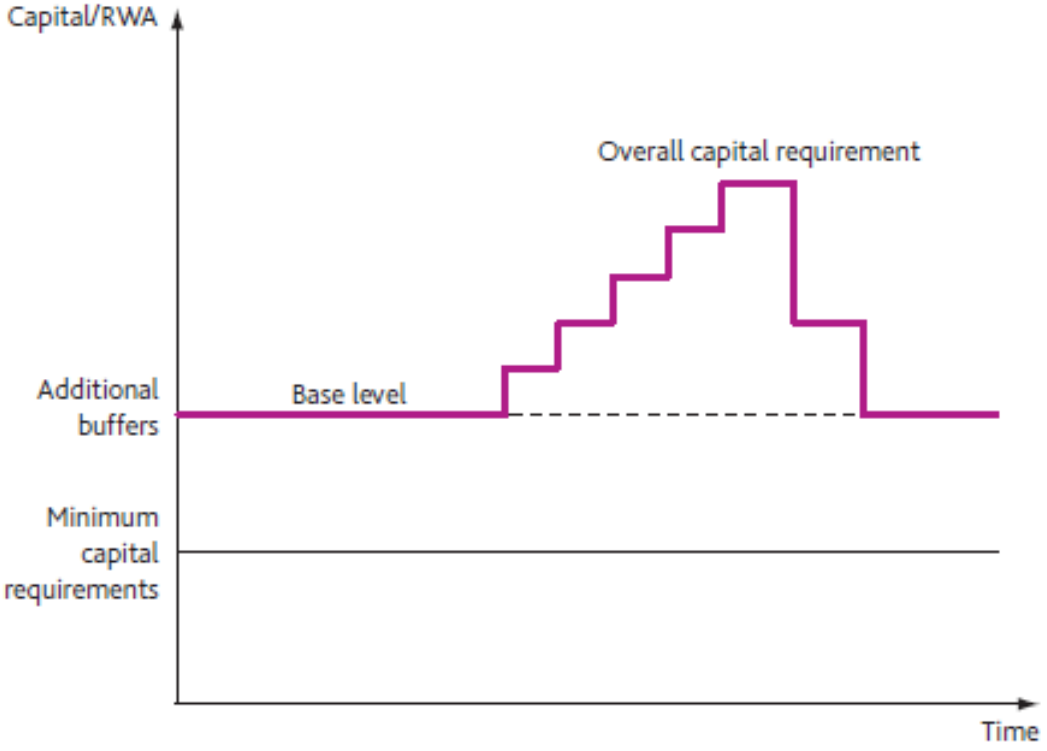
- FPC will have immediate powers over
  - Countercyclical capital buffer (CCB)
  - Sectoral capital requirements (SCRs)

Policy Statement:
The FPCs' Powers to Supplement Capital Requirements (2013)

- Future candidates?
  - Leverage ratio (in 2018, subject to review in 2017)
  - Liquidity tool
  - Margining requirements
  - LTV / LTI restrictions

Countercyclical capital buffer (CCB)

- Part of Basel III framework
- Additional <u>temporary</u> capital buffer applied at an aggregate level
  - FPC sets CCB rate for UK lending
  - Other countries set national CCB rate for overseas lending
  - Mandatory reciprocity in EU up to 2.5% RWAs



(a) 'Additional buffers' refers to the capital conservation buffer, systemic risk buffers and any forward-looking guidance on capital levels by the microprudential regulators.

Sectoral capital requirements (SCRs)

- FPC sets temporary additional capital requirements on
  - Residential mortgages
  - Commercial property exposures
  - Exposures to other financial sector entities

- More targeted/flexible than CCB
  - Could target risky sub-sectors
    - High-LTV mortgages
    - Financial sector: institutions (eg exposures to SPVs) or instruments (eg repos)
  - Could apply to stock of existing loans or just new lending

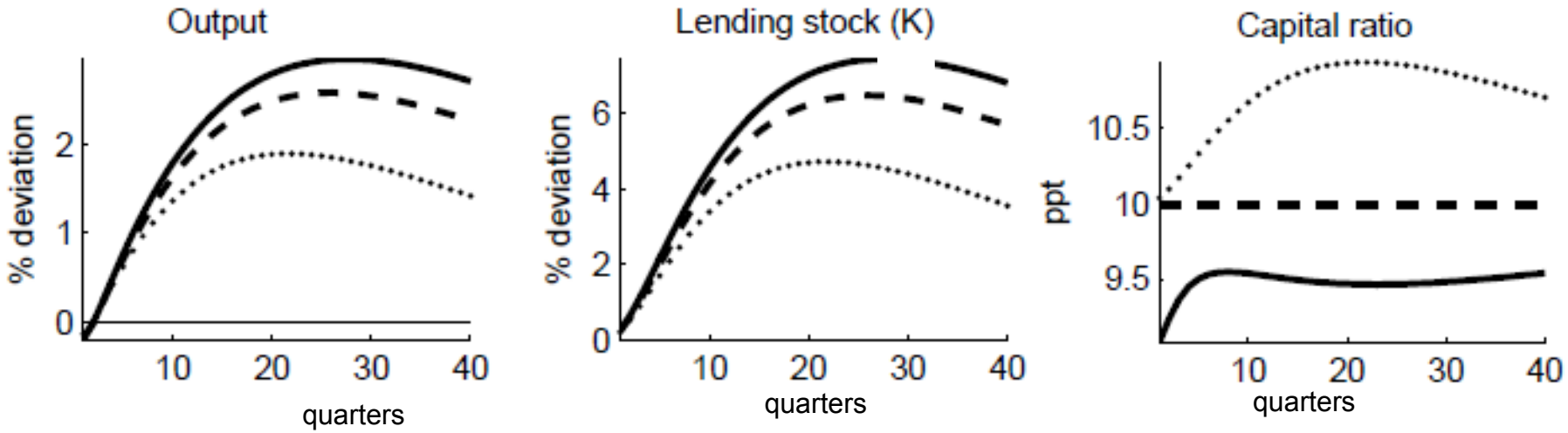
Models and tools for financial stability policy analysis

Models and tools

- Toy analytical models
- Quantitative models and tools

The macroprudential transmission mechanism

Simulating a credit boom under different capital requirements rules

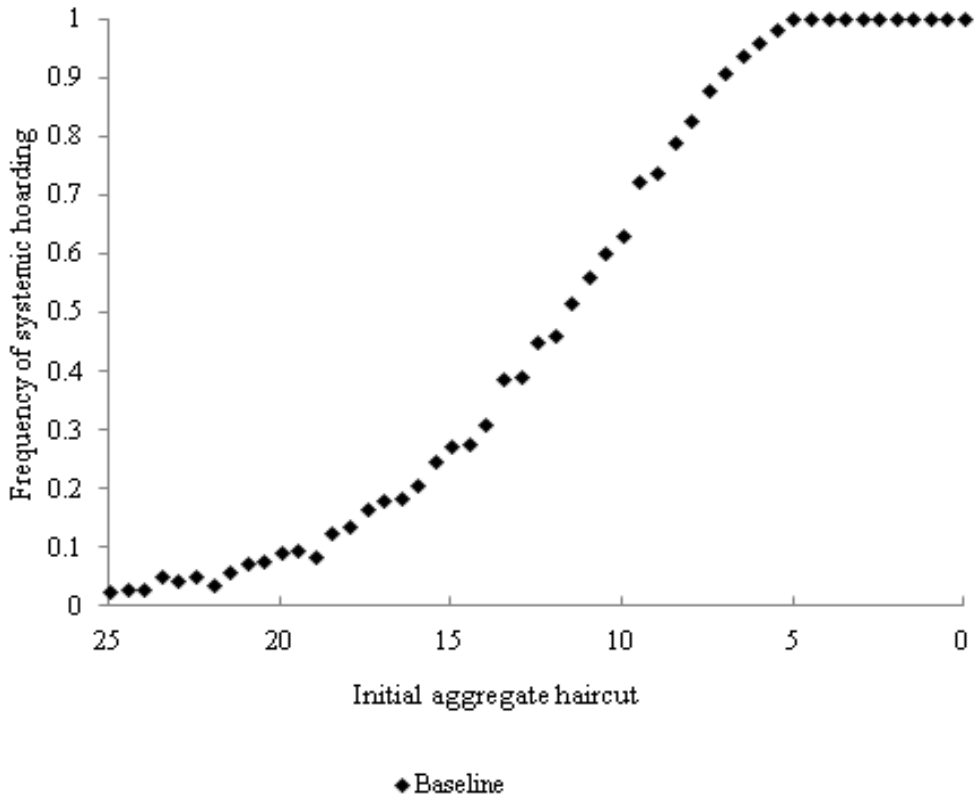


Solid line: no intervention
Dashed line: fixed capital requirement
Dotted line: countercyclical capital requirement responding to credit imbalance

- By leaning against the wind, countercyclical capital requirements can moderate credit cycles

Networks and financial stability

Haircut vs frequency of liquidity hoarding in a geometric network



Source: Gai, Haldane and Kapadia (2011)

Networks and financial stability

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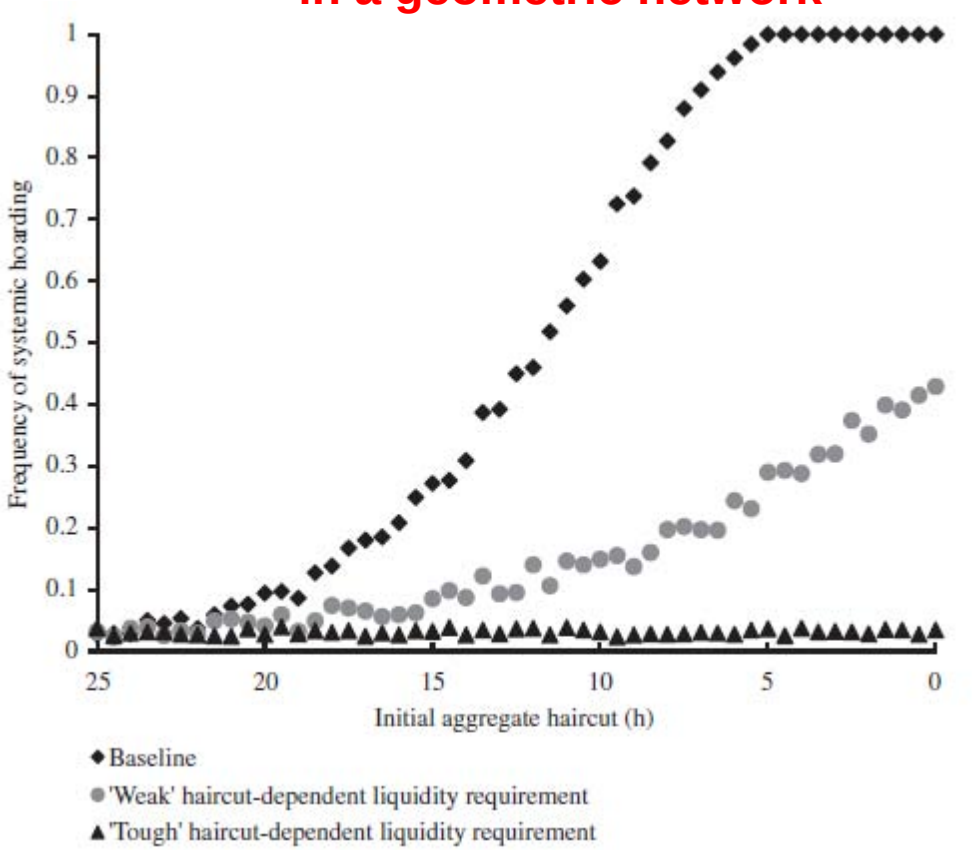
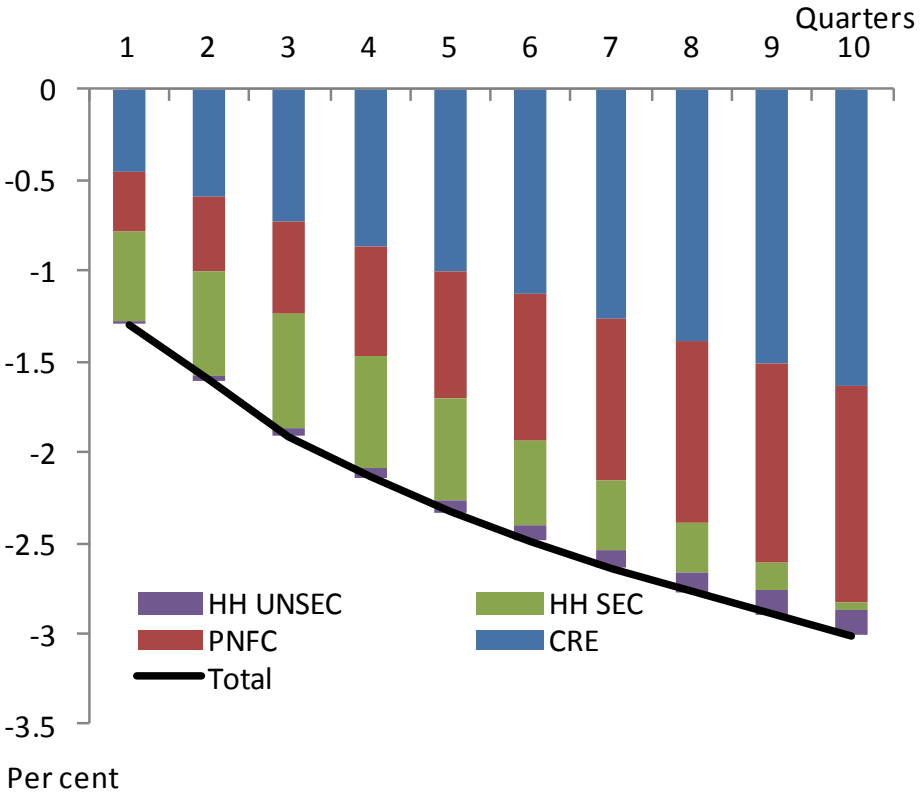


Source: Gai, Haldane and Kapadia (2011)

- Raising liquidity requirements as haircuts fall reduces contagion risk

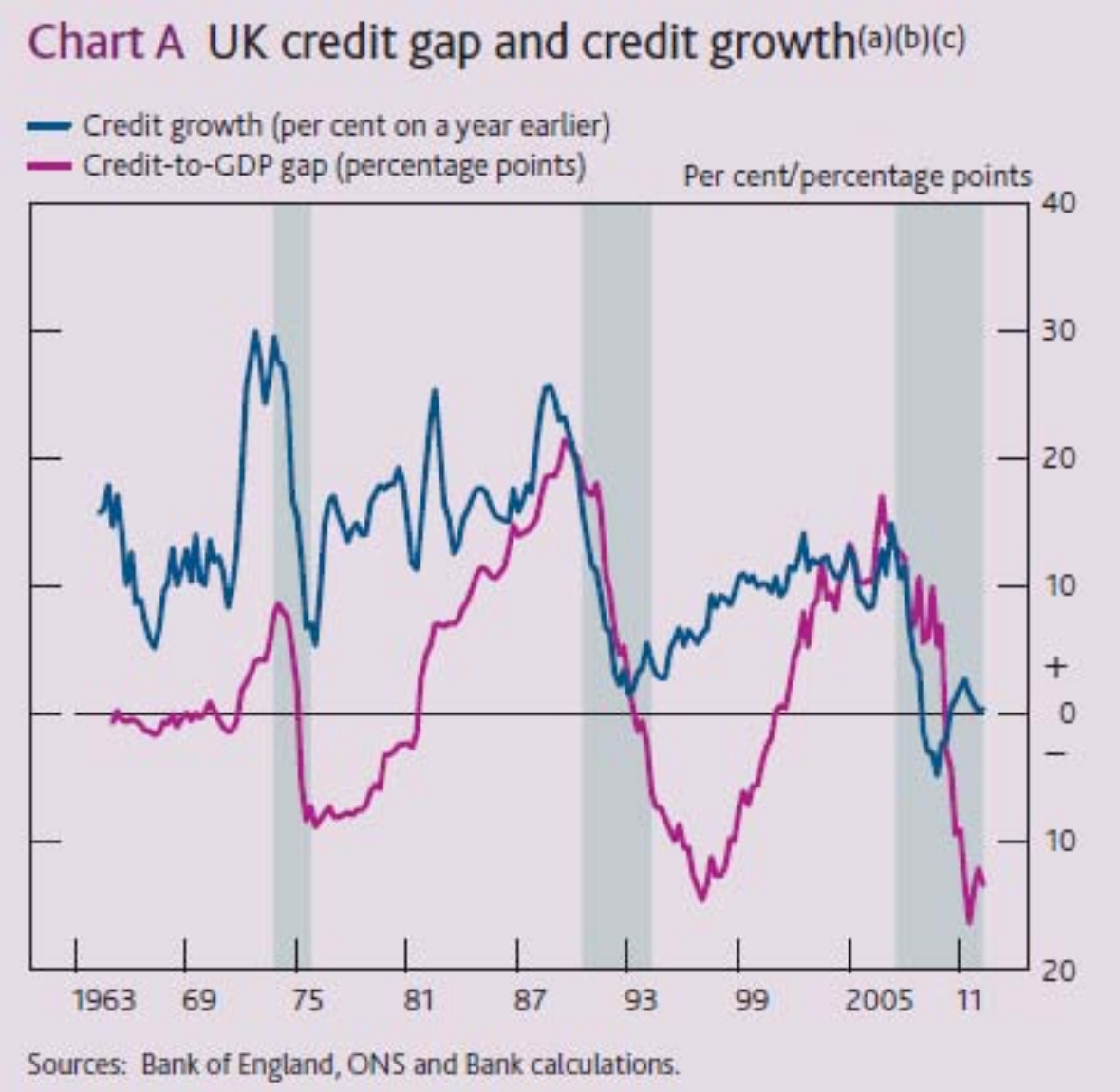
Estimating the sectoral impact of capital requirements

Impact of a 100 basis point increase in Pillar 2 requirements



- Micro-econometric estimates of the impact of micro-prudential standards on credit volumes

Macroprudential indicators



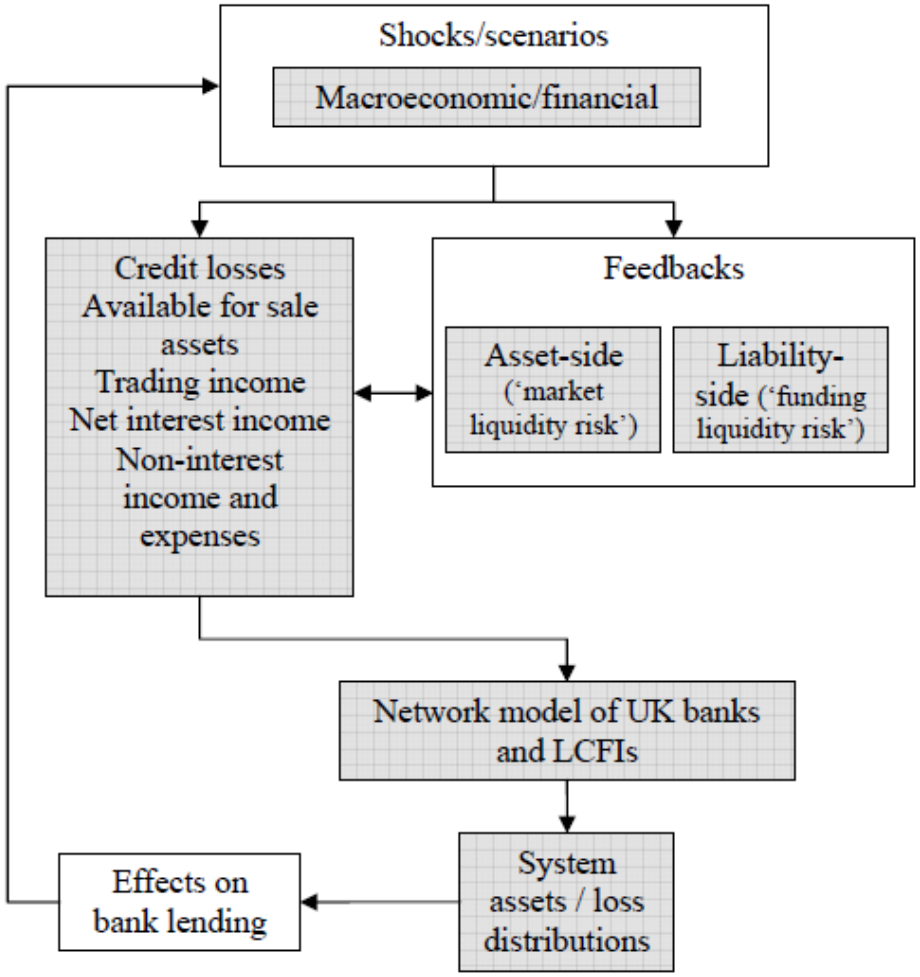
Macroprudential indicators

Table C Core indicator set for the countercyclical capital buffer[1]

Indicator	Average, 1987–2006[2]	Average 2006[3]	Maximum since 1987[2]	Minimum since 1987[2]	Latest value
Bank balance sheet stretch[4]					
1 Core Tier 1 capital ratio[5]	6.6%	6.3%	10.8%	6.1%	10.8% (2012 H1)
2 Leverage ratio[6]					
Simple	4.7%	4.1%	5.4%	2.9%	5.1% (2011)
Basel III	n.a.	n.a.	n.a.	n.a.	4.2% (Oct. 2012)
7 Bank debt measures					
CDS premia[11]	12 bps	8 bps	298 bps	6 bps	168 bps (Nov. 2012)
Subordinated spreads[12]	29 bps	10 bps	967 bps	4 bps	354 bps (Nov. 2012)
8 Bank equity measures					
Price to book ratio[13]	2.14	1.97	2.83	0.52	0.76 (Nov. 2012)
Market-based leverage ratio[14]	9.6%	7.8%	14.8%	1.9%	3.9% (Nov. 2012)
Non-bank balance sheet stretch					
9 Credit-to-GDP[15]					
Ratio	131.8%	179.1%	198.4%	93.8%	183.7% (2012 Q2)
Gap	4.2%	13.0%	21.4%	-16.3%	-13.3% (2012 Q2)
10 Private non-financial sector credit growth[16]	10.8%	10.1%	25.6%	-4.7%	0.4% (2012 Q2)
Conditions and terms in markets					
14 Long-term real interest rate[20]	3.09%	1.25%	5.14%	0.02%	0.04% (Nov. 2012)
15 VIX[21]	19.1	12.8	65.4	10.6	16.7 (Nov. 2012)
16 Global spreads[22]					
Corporate bond spreads[23]	115 bps	87 bps	486 bps	52 bps	139 bps (Nov. 2012)
Collateralised and securitised debt spreads[24]	50 bps	46 bps	257 bps	15 bps	63 bps (Nov. 2012)
17 Spreads on new UK lending					
Mortgage lending[25]	81 bps	56 bps	368 bps	42 bps	351 bps (Oct. 2012)
Corporate lending[26]	103 bps	98 bps	389 bps	93 bps	332 bps (2012 Q3)

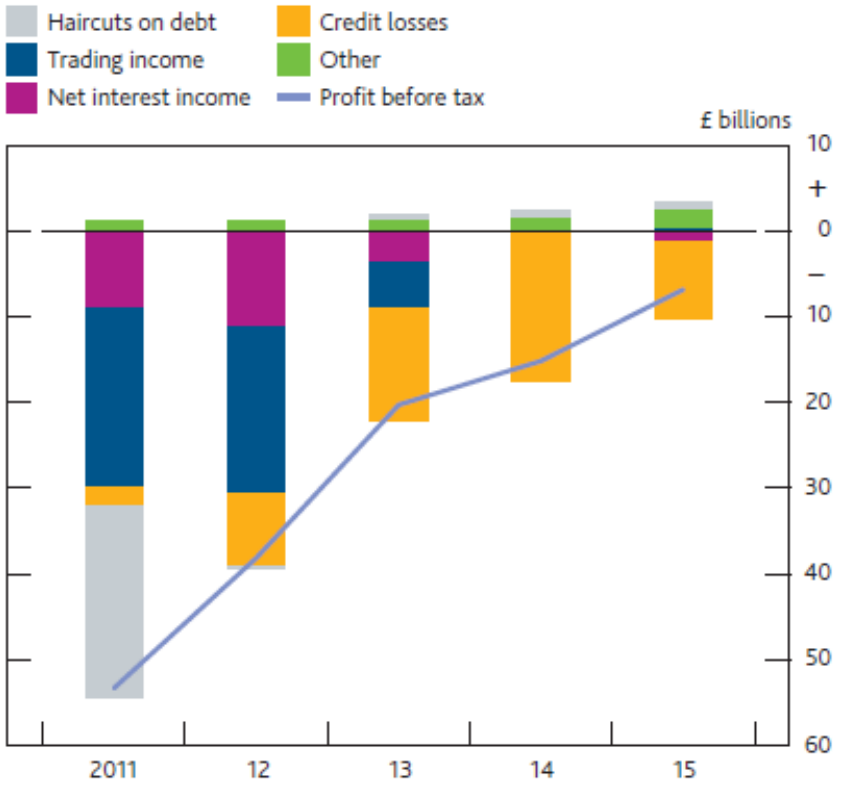
Stress testing - RAMSI

Figure 1: RAMSI framework



Source: Aikman et al (2009)

Chart 6 Aggregate UK banks' profits, stress scenario relative to the baseline(a)



Sources: Published accounts and Bank calculations.

(a) The combination of other income and operating expenses is shown as 'Other'.

Source: Burrows, Learmonth and McKeown (2012)

Where are we headed?

Research priorities

- Theory
  - Interaction of the financial system with the real economy
  - Agent-based models
  - Simplicity vs complexity trade-off in financial regulation
- Empirics
  - National accounts for financial stability?
  - Flow of funds
- Practice
  - Risk sensitivity and stress testing (Brunnermeier et al)