



# Guildhall

Asset and Liability Management Association Conference

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## Stress Testing: Some Potential Implications of the FSA Thematic Review

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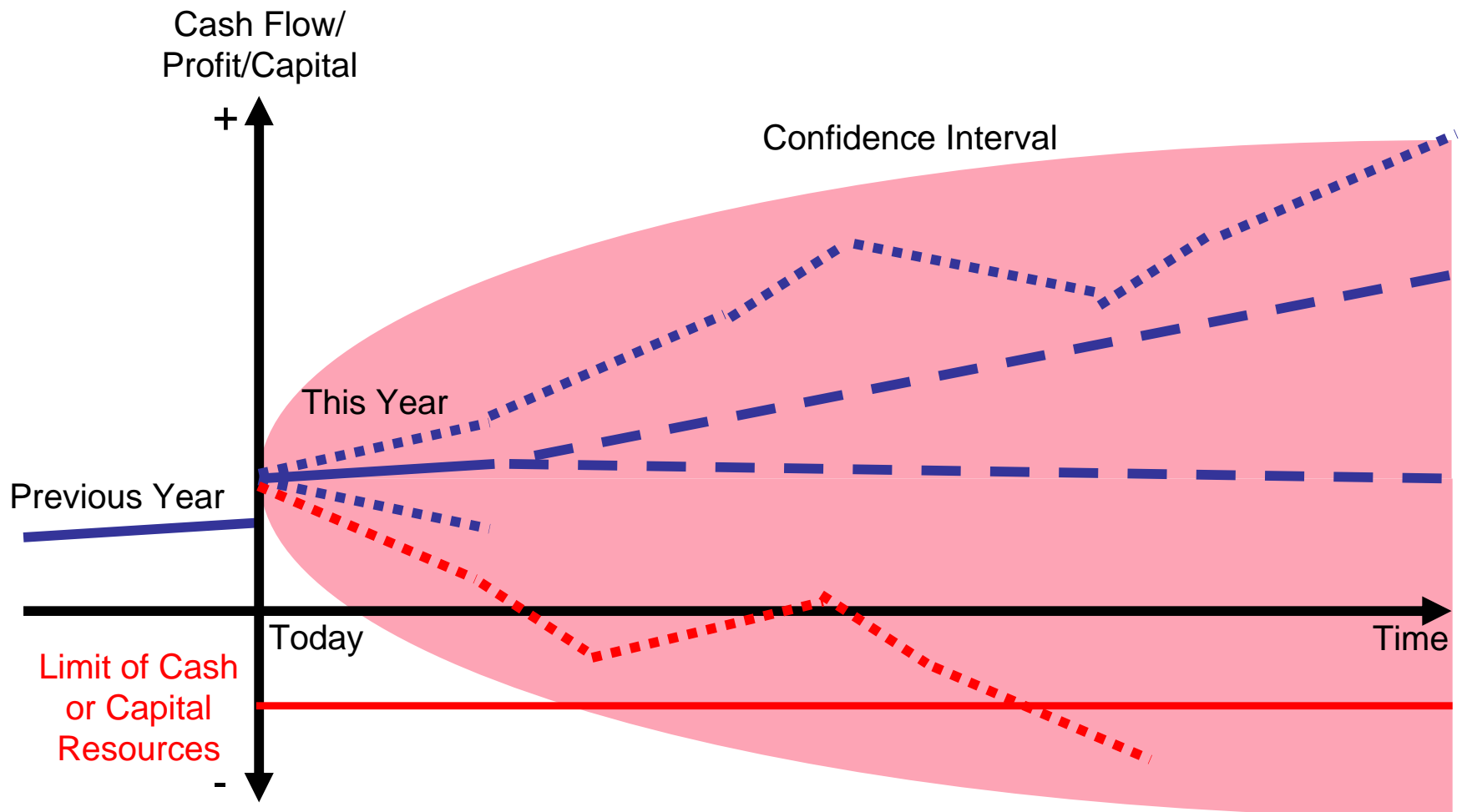
# Presentation Summary

1. Contextual Overview
2. Supervisory Consultation
3. A Challenging Scenario?
4. Summary

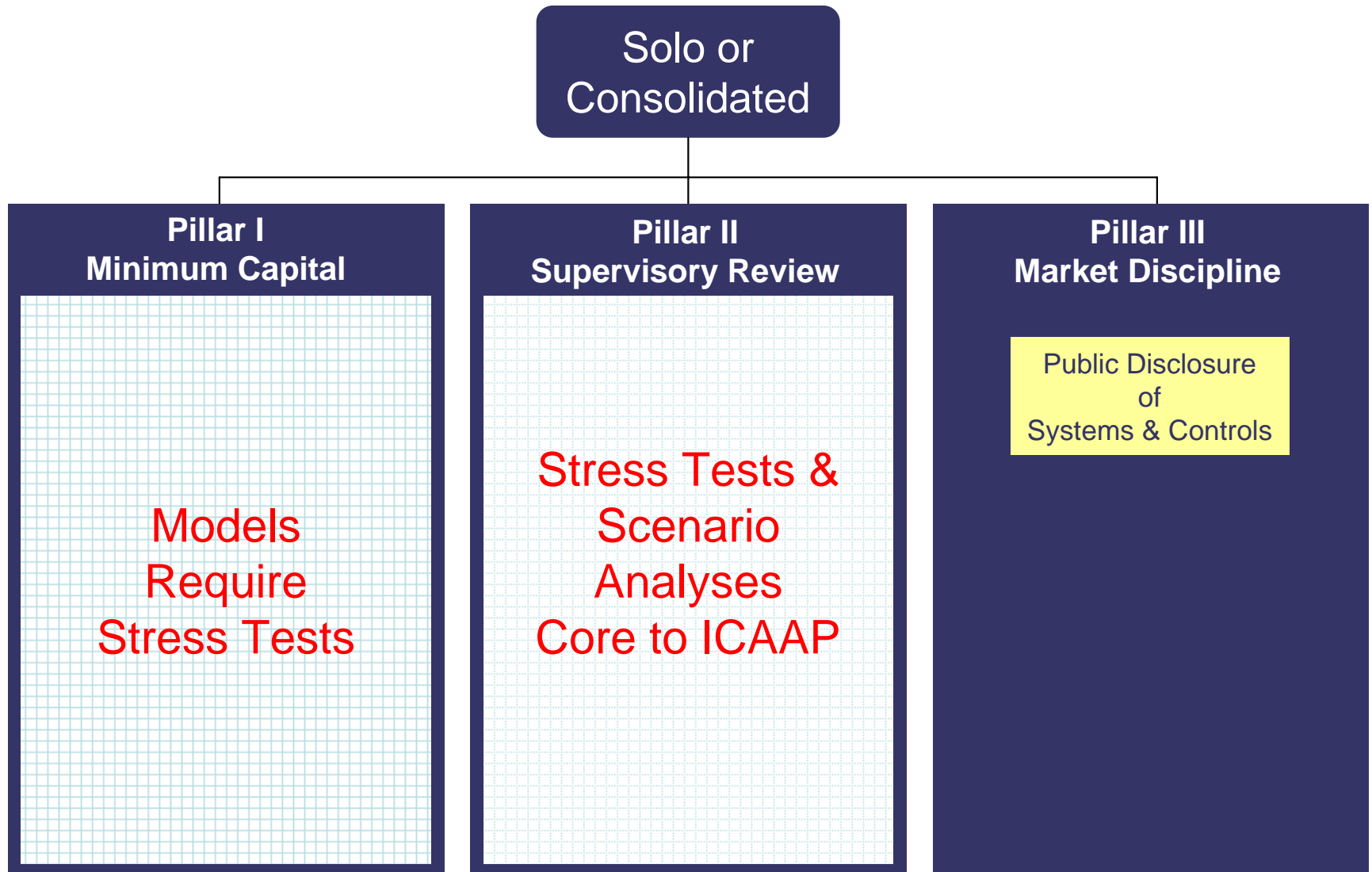


# 1. Contextual Overview

# Evolution of Forward Planning



# Regulatory Requirement





# FSA Comprehensive Approach

1. Senior management will be able to identify and articulate a firm's risk appetite and understand the implications of stress events within this context.
2. Senior management will take an active part in identifying potential stress scenarios.
3. Outputs from stress testing will be communicated to senior management in a comprehensible format.
4. Senior management will have an overview of firm-wide risks and stresses and a concept of total risk even where precise aggregation is not possible.
5. Senior management will consider formally the implications of stress testing for a firm's strategy or business profile.
6. IT systems, resources and procedures will allow senior management to identify, quantify and manage efficiently the stresses that affect a group.

*Source: FSA FS05/02 Annex 5*



# Selected Handbook References

## SYSC

- 11. Liquidity risk systems and controls
- 14. Prudential risk management and associated systems and controls
- 15. Credit risk management systems and controls
- 16. Market risk management systems and controls
- 17. Insurance risk systems and controls

## GENPRU

1.2

## BIPRU

2.2, 2.3, 4.3, 4.7, 4.10, 5.4, 5.6, 6.5, 7.9, 7.10, 7.11 10.6, 11.5, 13.6

## INSPRU

1.2, 1.3, 1.4, 1.6, 3.1, 4.1, 5.1, 7.1, 7 Annex 1



# 2. Supervisory Consultation



# Some Recent Initiatives

## Financial Services Authority (FSA)

- Consultation [DP05/02 05/2005 + FS05/02 12/2005]
- Thematic Review [Q2 + Q3 2006]
- Dear CEO Letter [10/2006]

## Bank of England

- Financial Stability Report [07/2006]

## Committee of European Banking Supervisors (CEBS)

- Consultation [CP12 06/2006]



# FSA Thematic Review

- Ten large firms from banking, building society and investment banking sectors.
- Most firms seen as developing and improving practices, with a small number ranked strongly versus comprehensive approach and a small number weak in all respects.
- Range of practice on senior management engagement, with better processes fully engaging CEO, CRO or both.
- Few firms using plausible stress events that would result in dividend cuts, annual loss or capital requirements shortfall, suggesting underestimation of likelihood of severe events or over-optimism over mitigation.
- Good communication included multi-year horizons across a range of metrics with separate presentation of mitigation.
- Some firms not using group-wide testing.



# BoE Financial Stability Report

- Considers systemic stress testing.
- Considers a number of stress scenarios:
  - Low risk premia correction [increase in high yield spreads]
  - Global imbalances unwind
  - Global corporate stress
  - UK household stress
  - LCFI stress
  - Infrastructure disruption
- Examines impacts of case histories:
  - Russia and LTCM in 1998
  - Continental Illinois in 1984
- Draws inferences on impacts, mitigation and contingency planning (see below).



# CEBS CP12

- Responses from a number of associations and trade bodies provide a wide range of opinion/concerns, including:
  - Proportionality, in particular cost/benefit for smaller/less complex institutions and time to implementation [3 to 5 years?]
  - Resource implications of ‘ad hoc’ stress tests
  - Need to balance past history with ‘blue sky thinking’ in developing stress scenarios
  - Clarity on systemic “tipping point” at which regulator-driven systemic financial stability initiatives will kick-in
  - Scepticism over utility of “supervisor imposed” stress scenarios due to differing approaches by firms
  - Macroeconomic tests inapplicable to infrastructure providers
  - Perceived absence of operational risk capture
  - Yearly review should apply to scenarios not process
  - Impact of capital related stress testing on level playing field



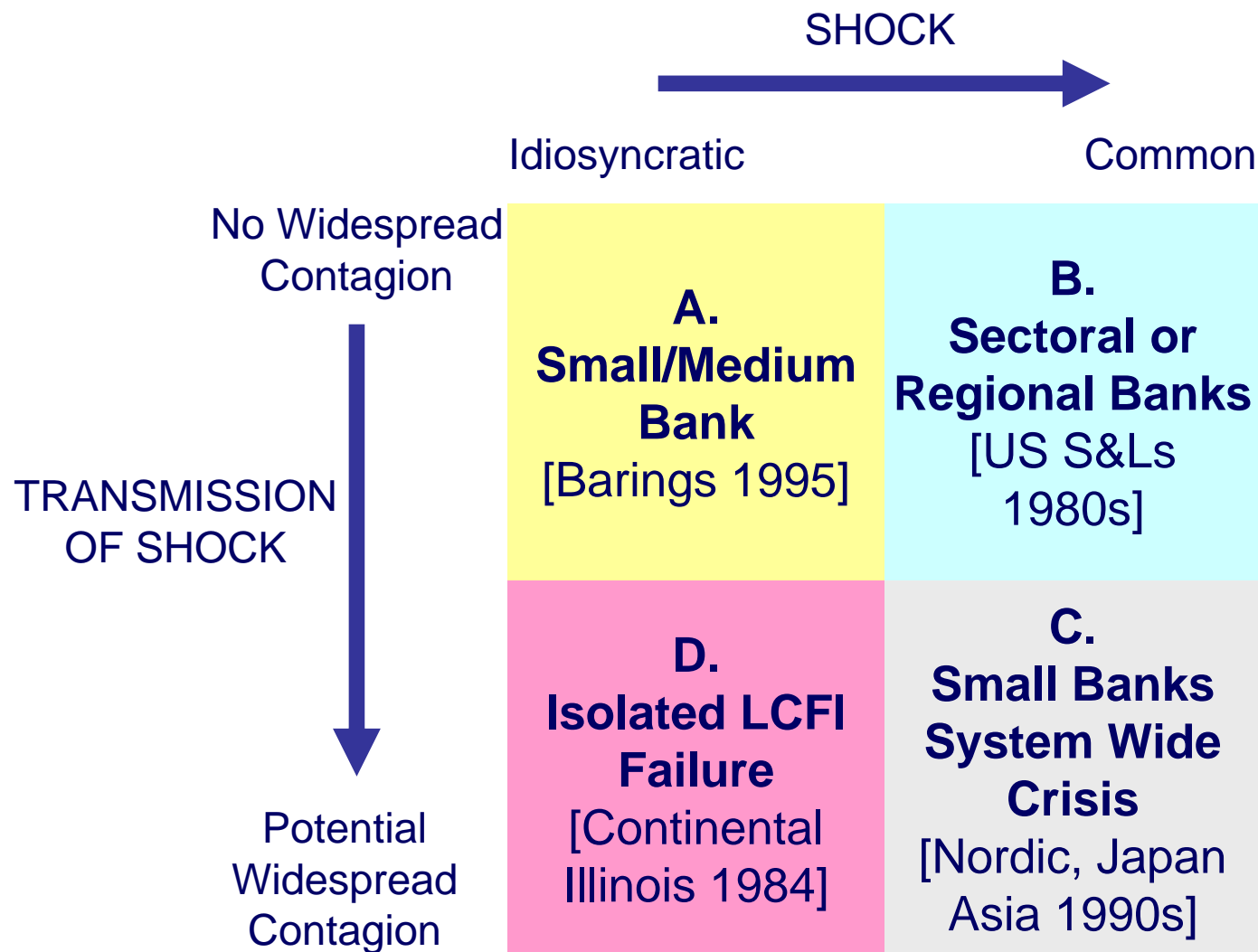
# Some Preliminary Conclusions

- The UK is ahead of other jurisdictions in terms of its industry consultation process and implementation [cf also Basel IA in USA], but ...
- ... the practicalities of implementation during 2007/8 may test aspects of this, particularly where smaller/less complex firms are concerned.
- Differing timetables may have implications for home/host supervision issues and the realisation of the wider financial stability benefits perceived by the BoE, FSA and other supervisors.



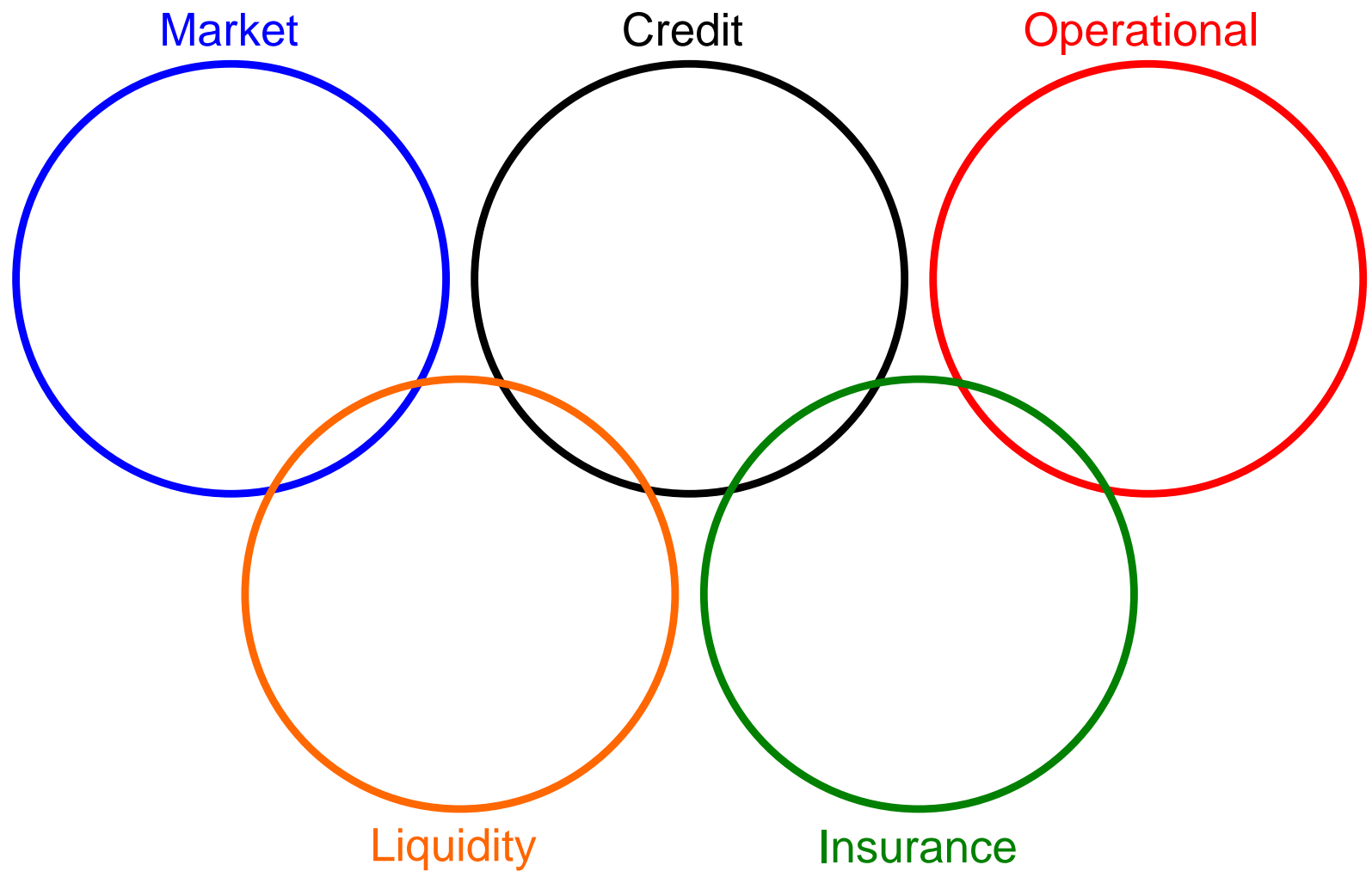
# 3. A Challenging Scenario?

# Defaults + Systemic Shocks

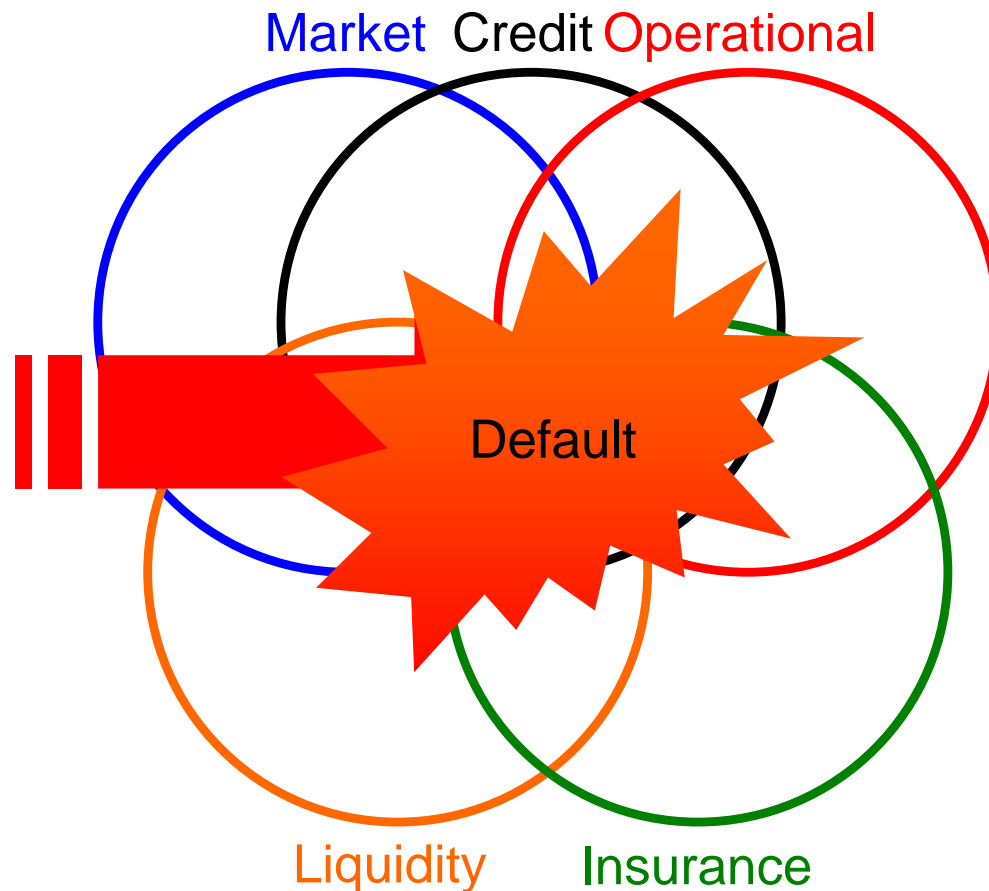


Reproduced from  
*Financial Stability  
& Bank Solvency*  
A Haldane et al  
30/09/2004

# Risk Classes



# Migration Across Risk Classes



*Counterparties' Loss Given Default a function of abilities to manage impact of Credit and non-Credit risks.*

*Counterparty behaviour a critical issue?*

*Potentially wider macroeconomic impacts?*

# BIS 2004 Volume Survey

## Average Daily Volumes in Sterling Interest Rate Products (London Market, April 2004)

Notional Amounts £ billions	Swaps	FRAs	Options	OTC Total
With reporting dealers				
local	8.090	3.891	0.718	12.699
cross border	8.992	3.631	1.255	13.878
	<hr/>	<hr/>	<hr/>	<hr/>
	17.082	7.522	1.973	26.577
With other financial institutions				
local	4.028	2.365	0.189	6.582
cross border	9.509	3.367	1.906	14.782
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	13.537	5.732	2.095	21.364
With non-financial customers				
local	0.957	0.068	0.213	1.238
cross border	1.217	0.405	0.060	1.682
	<hr/>	<hr/>	<hr/>	<hr/>
	2.174	0.473	0.273	2.920
	<hr/>	<hr/>	<hr/>	<hr/>
	32.793	13.727	2.368	48.888



# Some Contemporaneous Statistics

- From FY2003 or FY2004 accounts for 73 UK lenders
- Group selected because of:
  - Generally high quality of disclosure in accounts
  - Ability to construct consolidated portfolio predominantly in a single major currency
- “Big 3” total interest rate derivatives across all currencies:
  - Notional £15.3 trillion
  - Replacement cost of £200 billion
  - Reserves £90.4 billion
- Remaining 70 collectively:
  - Notional £1.7 trillion
  - Replacement cost £16 billion
  - Reserves £52.3 billion



# Bank of England FSR 07/2006

- Role of FSA factbooks.
- New MOU between HM Treasury, Bank of England and FSA.
- MOUs between UK and EU authorities.
- Role of systemic stress testing and scenario analysis.
- Individual scenarios could be absorbed by annual profits.
- Compound/extreme impacts estimated at various ranges of up to 40 per cent of Tier 1 capital.
- Limitations include lack of feedback modelling.
- Stress tests are a useful starting point to understanding the systemic risks ...
- ... and propose that financial institutions should consider this set within their own stress and scenario planning.



# Some Related Issues

- Directional skew of counterparty portfolios.
- Policies on PFE, collateral and defaults.
- Ability to perfect and/or liquidate collateral.
- Assumed behaviours of regulators, central banks, infrastructure providers and counterparties ...
- ... and of “optional” providers of market liquidity such as hedge funds and proprietary trading desks.
- Front, middle and back office capacity constraints.
- Business continuity/contingency planning aspects.
- Disclosure and transparency (even post IAS/IFRS).



# 4. Summary



# Key Messages

- Stress testing and scenario analyses benefit the strategic - as well as the risk and regulatory – toolkits (plausible/low probability upsides, management of risk distribution ).
- Regulatory implementation will continue to be challenging (most firms are retro fitting their portfolios).
- LCFI default with resulting macroeconomic impact underlines many aspects of stress testing and scenario analysis and is conducive to systemic financial stability.
- Investment in scenario-dependant quantitative and process functionality presents an interesting conundrum.
- Technology continues to improve in terms of computing power and simulation suites, along with process mapping and knowledge management tools for contingency planning.



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