Risk Management

Banks versus Insurers

John O’Brien, Brian O’Kelly, David O’Connor

Agenda

- Introduction and overview

John O'Brien

- Whistle-stop tour of risk management in banking

Brian O'Kelly

- Comparing bank and insurance risk management
- Customer perspective

David O'Connor

- Key questions

Introduction

There *must* be risk in a capitalist financial system:

- (insurance) policyholder wants a low cost of insurance but secure counterparty
- (bank) depositors want attractive rates of return but secure counterparty
- bank borrowers want low borrowing costs
- everybody wants flexibility
- competition needed to ensure agreeable pricing for consumers
- ... but shareholder capital needs to offer the prospect of reward

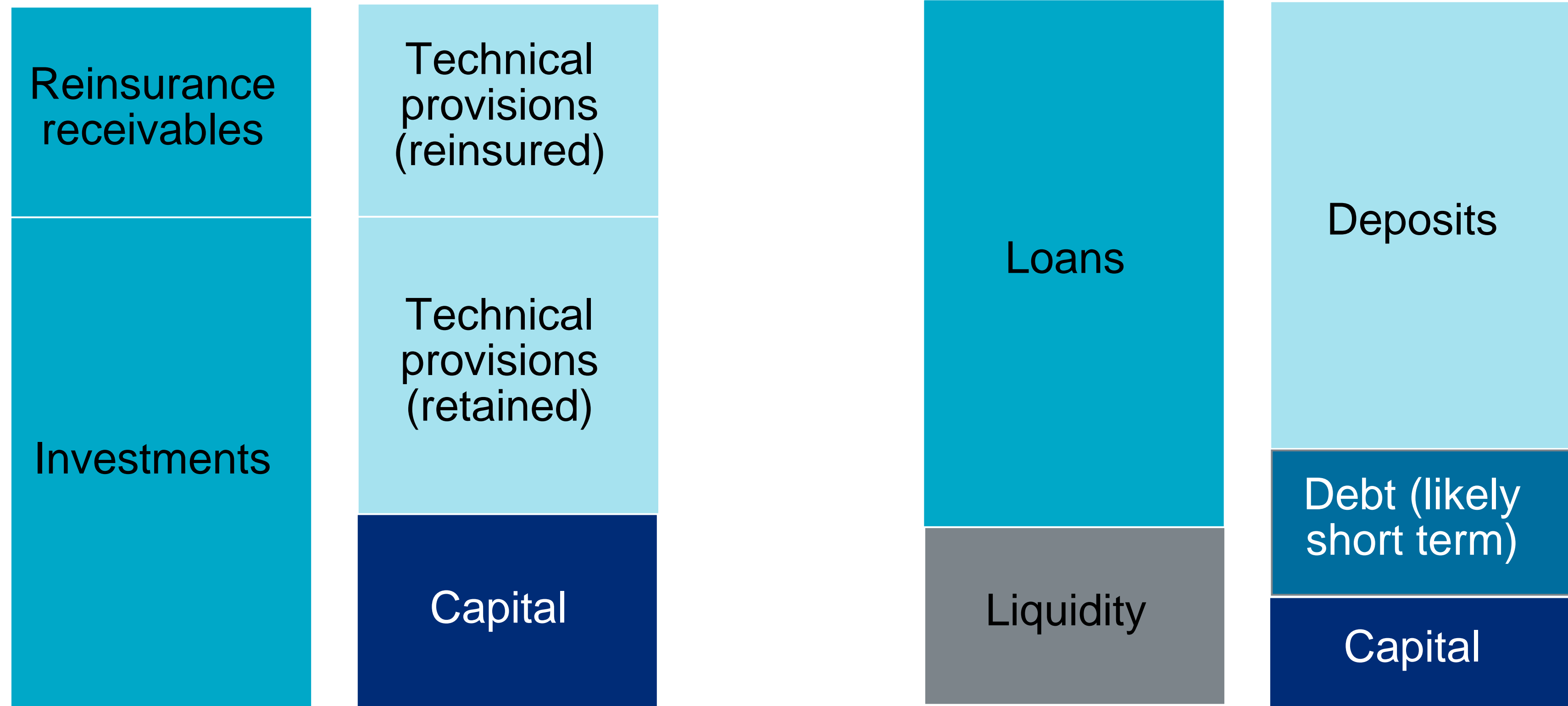
Key element of regulation and its impact on financial institutions is to manage this balance:

- regulation must *choose* a tolerable level of failure risk
- ensure adequate quantitative & qualitative processes to protect stakeholders
- ensure framework that facilitates effective financial intermediation

Not a question of banks "versus" insurers:

- Despite industry convergence, businesses remain fundamentally different
- So must (below principles level) approach to risk management & governance
- But there is probably a lot that each can learn from the other

Comparison of balance sheets and key risks



- Claims exceed premia
- Provisions for expected future claims increase
- Investments under-perform
- Mark to market effects
- Policy withdrawal
- Reinsurer failure

- Loans default
- Liabilities (funding) withdrawn
- Marginal cost of acquiring liabilities rises
- Ability to reprice balance sheet limited
- Mark to market effects (interest rate)
- "Capital" is redeemed

← Operational risk, fraud, reputational risk, counterparty failure →

Some similarities and differences relevant to risk management

Similarities

- Both are focussed on cash-flows and understanding the uncertainty of these cash-flows
- Both depend on aggregation and the pooling of risks
- Both rely on incomplete models and recent history to price products and risks
- Both (in Europe) are subject to regulatory frameworks based on same three principles
- Both have been subject of industry consolidation and globalisation
- Often competing in same markets, e.g. savings

Differences

- Insurers use reinsurance for risk management, facilitating syndication of risks - shadow banking has failed
- Insurer's assets are typically funded to term, banks need to continually chase financing
- Capital alone can never keep a bank solvent, absent liquidity
- Insurance risks are typically independent while bank risks are correlated in unpredictable ways - and are systemic
- Insurers "sell" liabilities while banks need to sell both

Common perceptions and misperceptions

- Insurers fail when they behave like banks, banks fail when they behave like investment banks
- Insurers are far more focussed on tail risk and reserve for tail events while banks reserve as if tail events never happen

  ... in the knowledge that if they do, they can play the moral hazard card
- The role of the actuary has been instrumental in ensuring that insurance is the more stable industry
- Banks manage capital to optimise return rather than ensure survival
- Fair value accounting and realistic balance sheets unnecessarily exacerbate risk perception in both industries and compromise ability to financially intermediate
- Banks and insurers can continue to attract capital promising shareholders attractive returns
- Systemic risk doesn't exist in insurance
- The bar is higher for insurers

A higher bar?
Own defined benefit pensions risk to become a Pillar 1 issue for insurers?

	Banks	Insurers
Regulation	Basel III/CRD IV	Solvency II[1]
Pillar 1 **Impact on own funds**	Accounting liability (deficit) recognised in full No prudential filters Surplus deducted on plan by plan basis	Accounting liability (deficit) recognised in full No prudential filters
Pillar 1 **SCR / RWA**	No contribution	Potential deterioration at 99.5% VaR theoretically part of SCR (pre allowance for mitigants, diversification)[1]
Pillar 2	Pensions risk capital in ICAAP Approach varies by jurisdiction	Likely a Pillar 1 issue
Mitigants (UK ICA precedent)	FSA permits mitigants that could take years to materialise	FSA permits immediate mitigants only

[1]Note that expected Solvency II treatment is based on various consultation papers published to date and precedent in the UK. Level 3 advice has not yet been published.

Risk Management in Banking

Nature of Banking

- Illiquid assets
  - Retail, SME
  - Weak credit quality
- Exposed to financial risk
  - Systemic
- Maturity intermediation
  - Borrow short-term, lend longer-term
- Leverage
  - 20-50 times typically
- Potential for systemic risk and crises

Insurers *vs* Banks: Source of Systemic Risk?

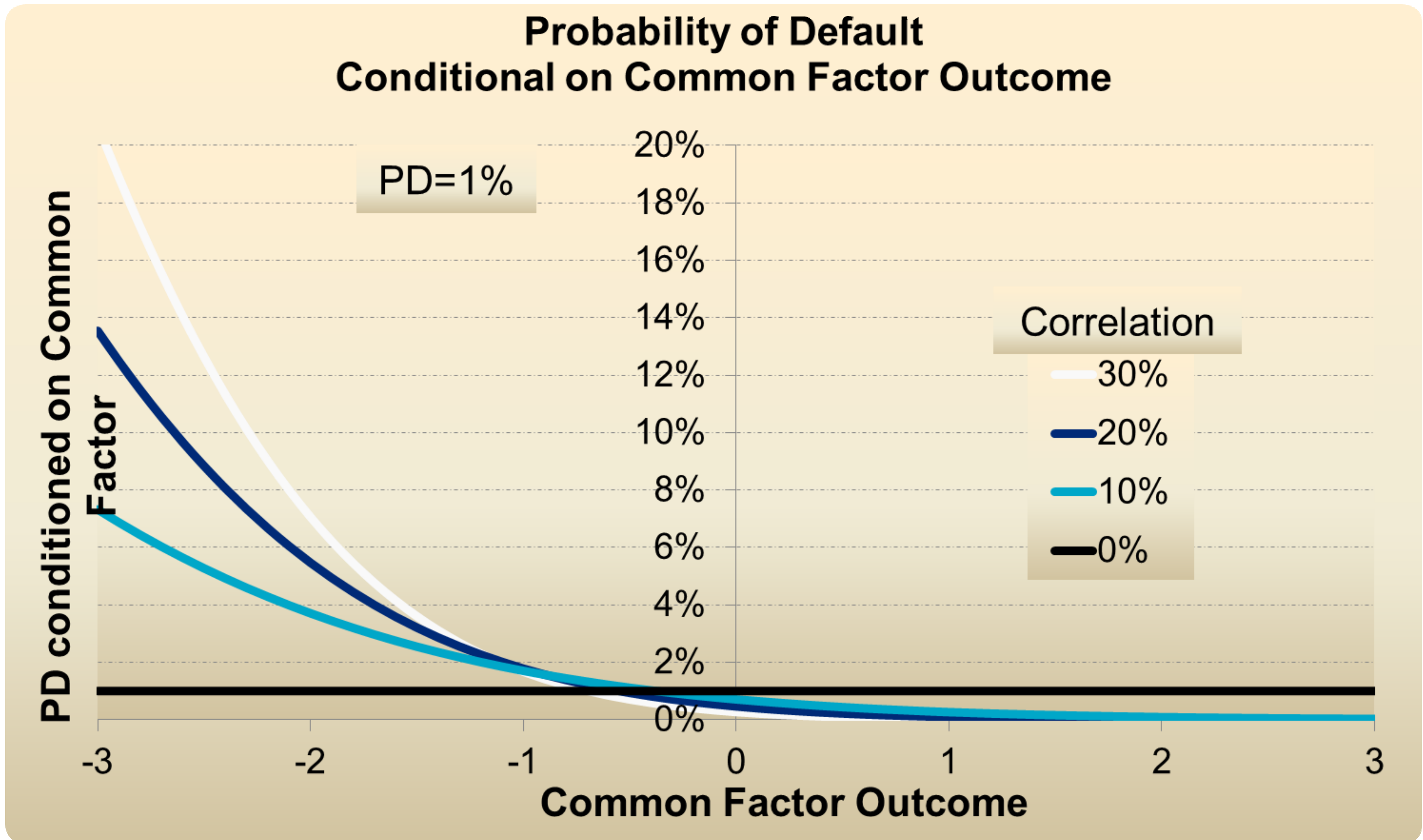
- “Insurance business model … has specific features that make it a source of stability in the financial crisis”
  - Funded by upfront premiums giving insurers strong operating cash flow without requiring wholesale funding
  - Insurance policies are generally long-term, with controlled outflows, enabling insurers to act as stabilisers to the financial system
- Insurers that failed were brought down by their quasi-banking activities *e.g.* AIG, monolines

Special Report on Systemic Risk in Insurance
Geneva Association, March 2010

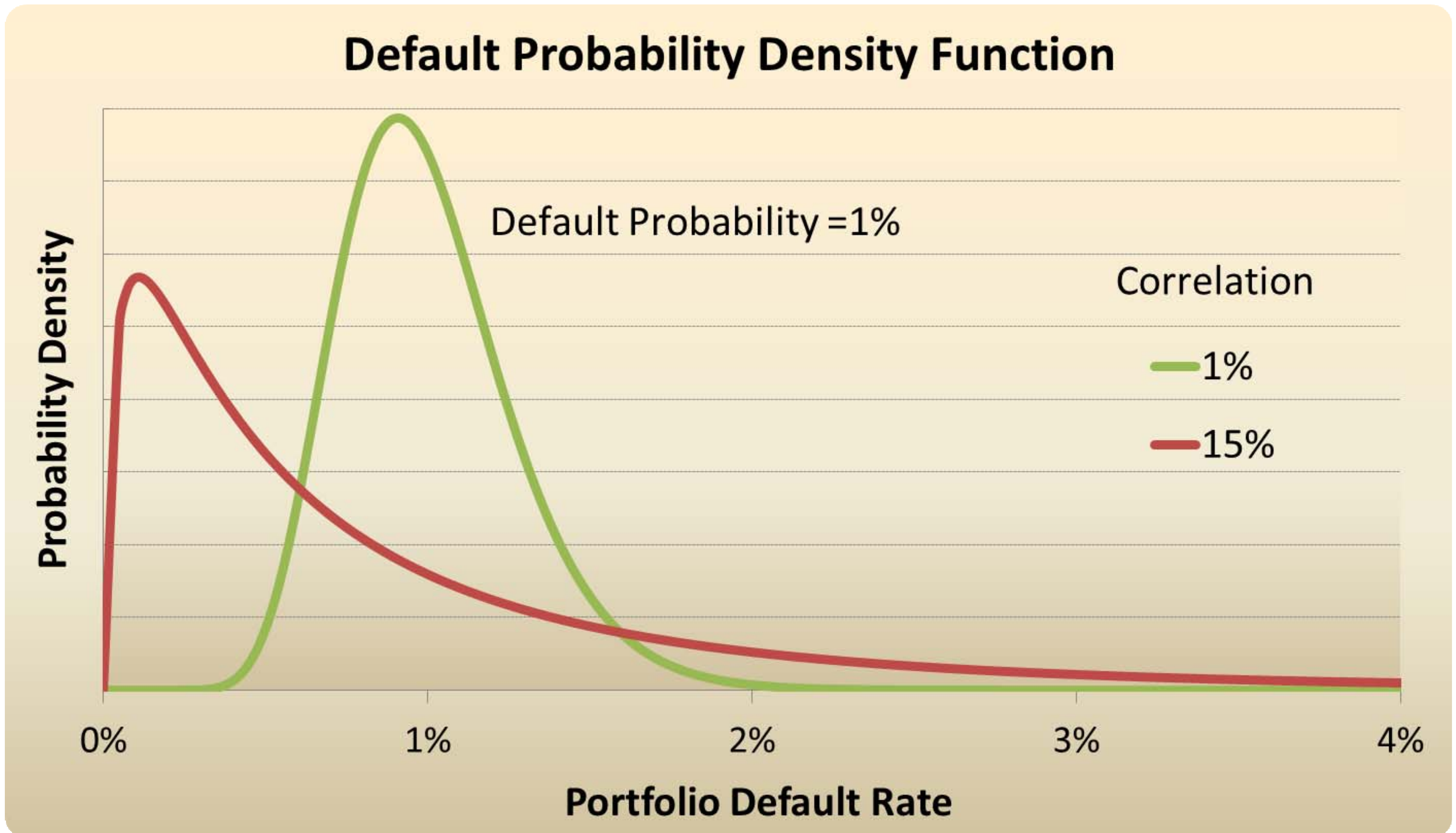
Risks in Banking

- Credit risk
- Liquidity risk
- Interest rate risk
- Market risk
- Operational risk
- Sovereign risk

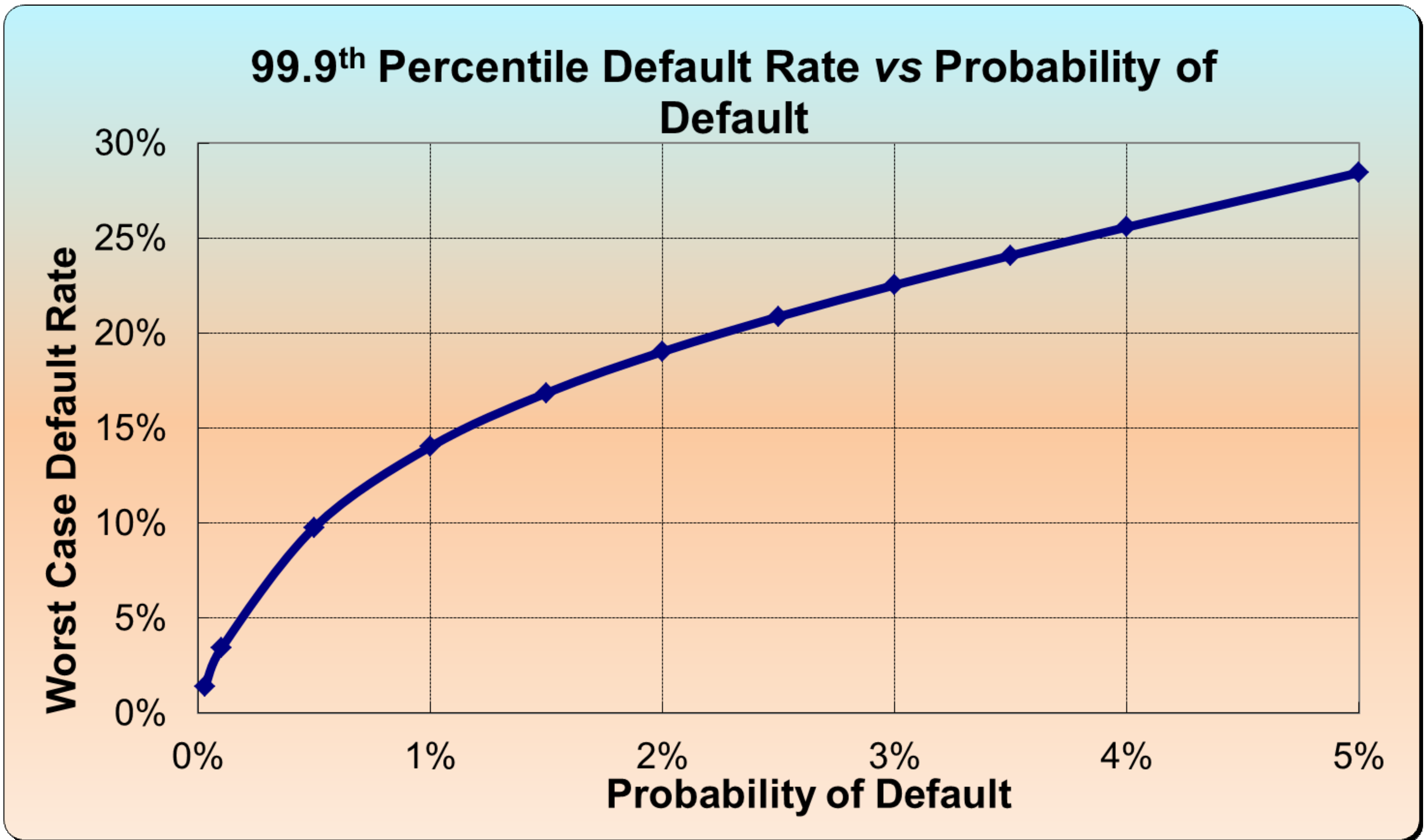
Impact of Correlation on Portfolio Default Rate Distribution



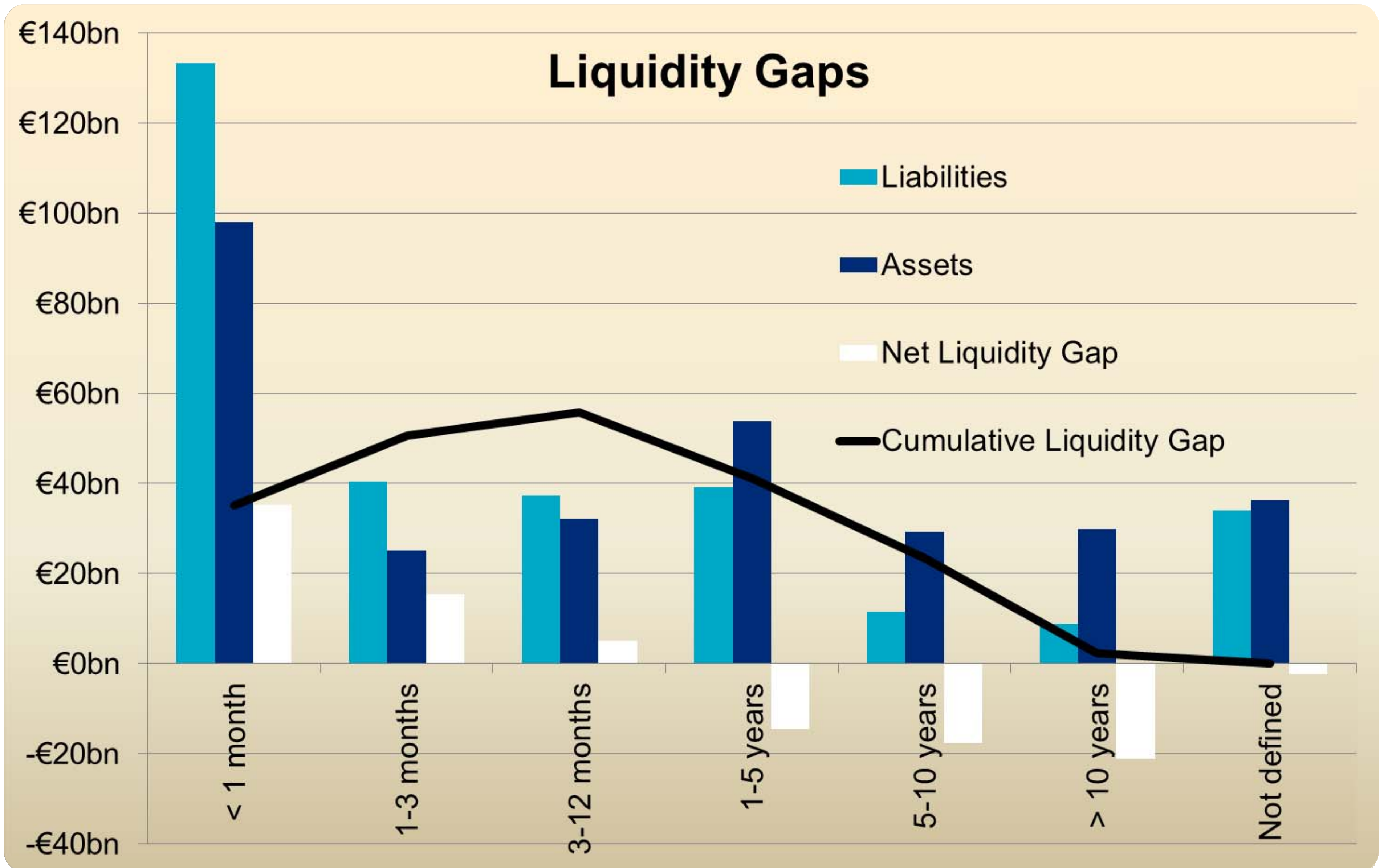
Impact of Correlation on Portfolio Default Rate Distribution



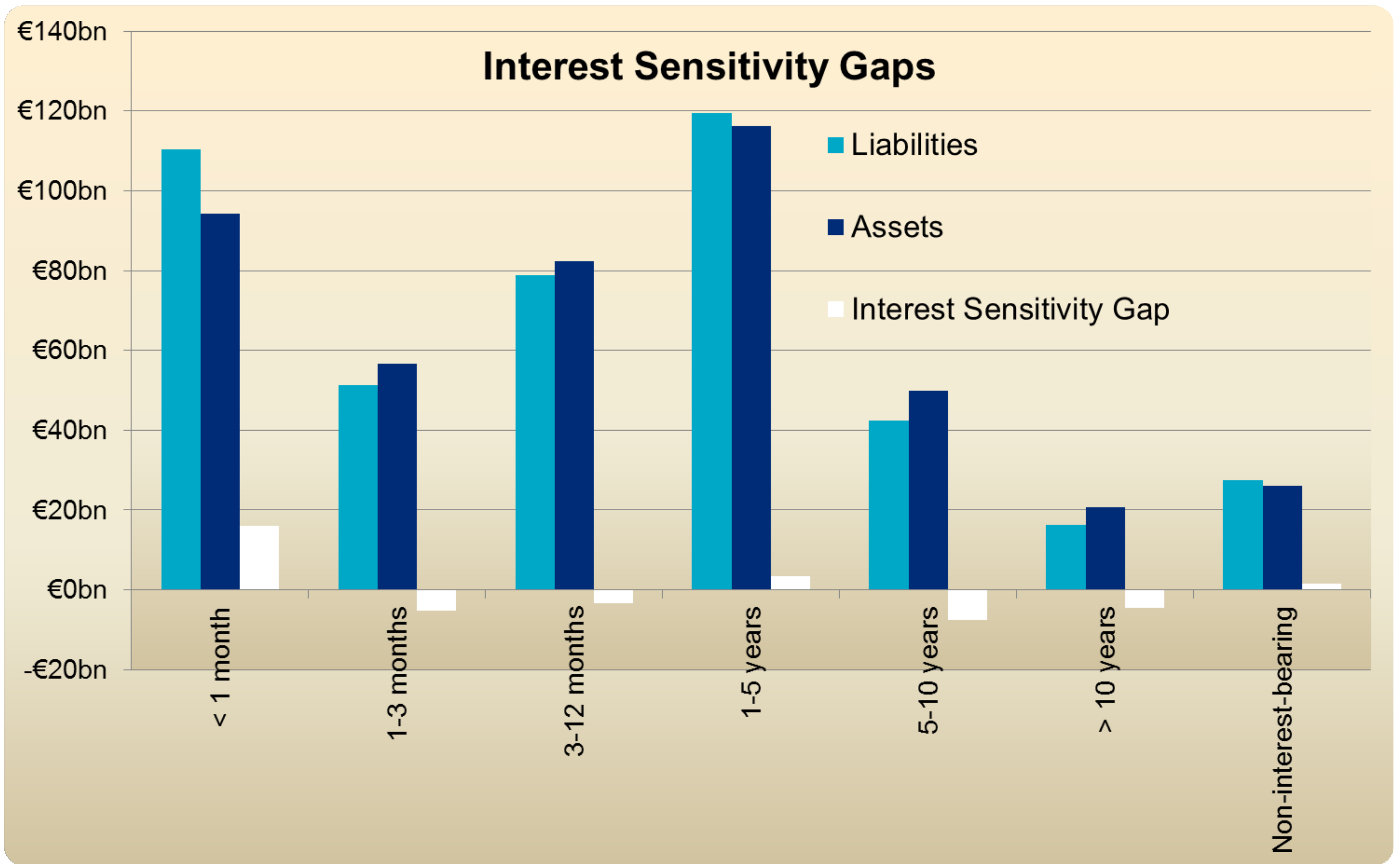
Tail Probabilities can be Extreme



The Kindness of Strangers



Interest Rate Risk

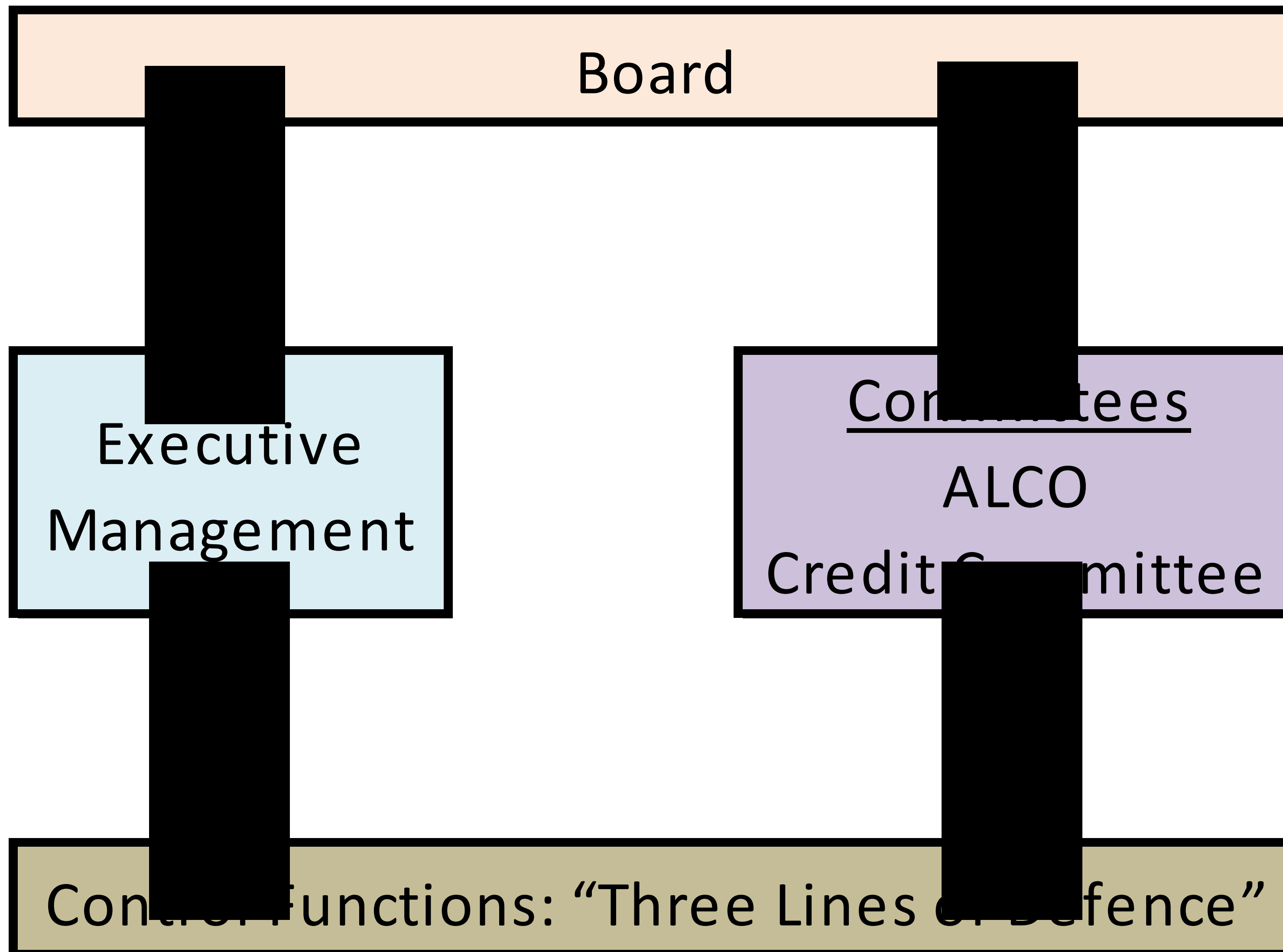


Corporate Governance and Risk Management

- The board should
  - actively carry out its overall responsibility for the bank, including its business and risk strategy
  - be supported by competent, robust and independent risk and control functions, for which the board provides effective oversight
- Senior management should ensure that the bank's activities are consistent with the business strategy, risk tolerance/appetite and policies approved by the board
- A bank should have a risk management function (including a chief risk officer (CRO)), a compliance function and an internal audit function, each with sufficient authority, stature, independence, resources and access to the board

Principles for enhancing corporate governance
BIS, October 2010

Corporate Governance and Risk Management



Control Functions:
"Three Lines of Defence"

1st Line: Risk taking

Conduct business within set limits

2nd Line: Risk management

Set business line limits to keep business within risk appetite

3rd Line: Control assurance

Independent review of adherence to risk and control standards

Risk Management and Basel II: Supervisory Review Process

- Pillar II
  - “enhance the link between an institution’s risk profile, its risk management and risk mitigation systems, and its capital”
  - “reinforce the link between risk and capital, so that the institution’s risk management strategy, approaches and systems are integrated with its capital planning”

Guidelines on Supervisory Review Process

CEBS, Jan/06

Risk Management and Basel II

- Internal capital adequacy assessment process (ICAAP)
  - Identify, measure, aggregate and monitor the institution’s risks
  - Undertake stress tests
  - Hold adequate internal capital in relation to the institution’s risk profile
  - Use sound risk management systems
- Supervisory review and assessment process (SREP)
- Principles-based approach
- ICAAP integrated into bank management process

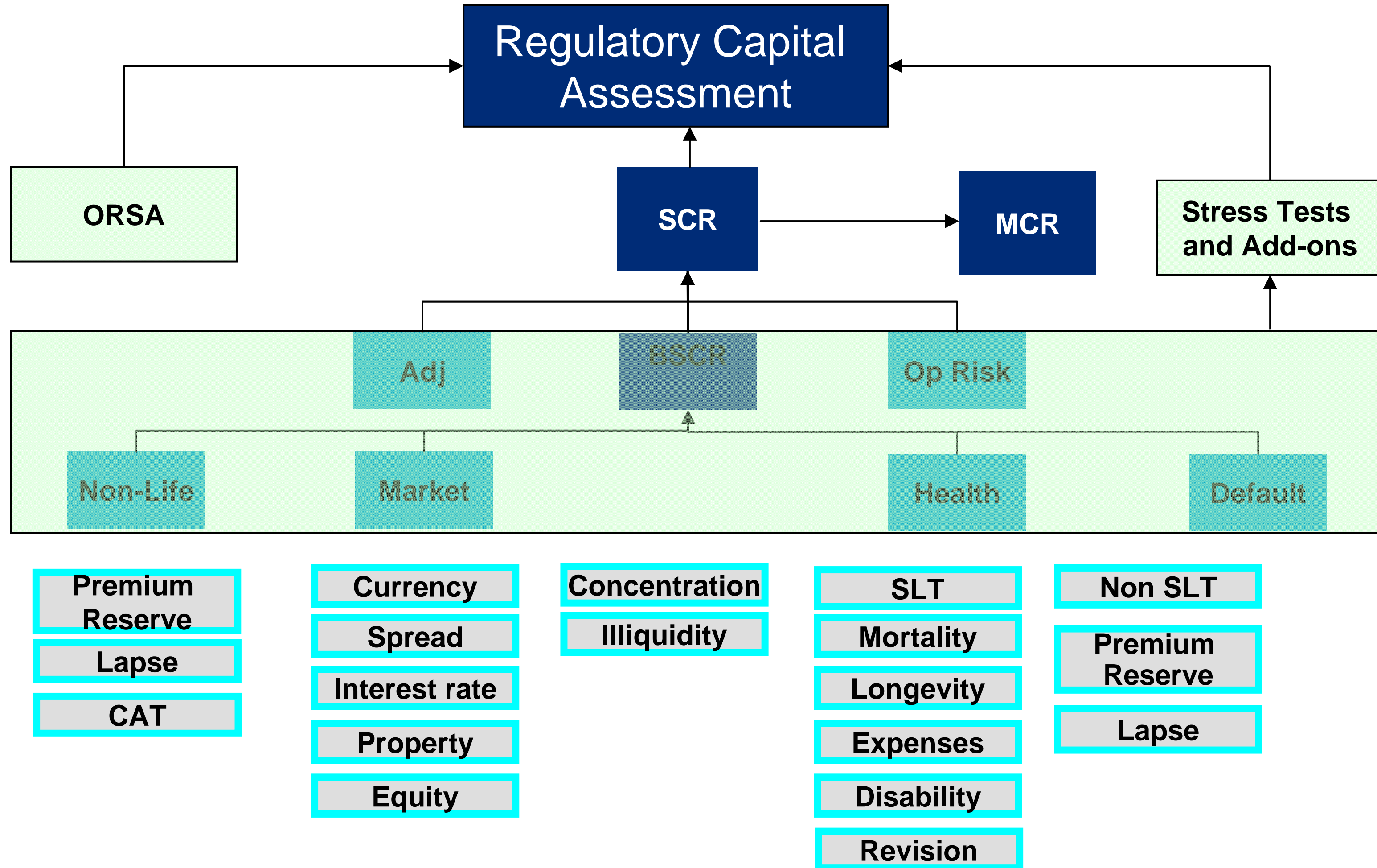
Basel III:
Regulatory Response to Crisis

- Capital
  - Much more
    - Up to seven times more
- Liquidity
  - Liquidity coverage ratio
    - Far more liquid assets required
    - Very few asset classes considered ‘high-quality’
- Maturity intermediation
  - Much less allowed
    - Net stable funding ratio
- Leverage
  - Assets/Capital capped
    - Not risk-weighted

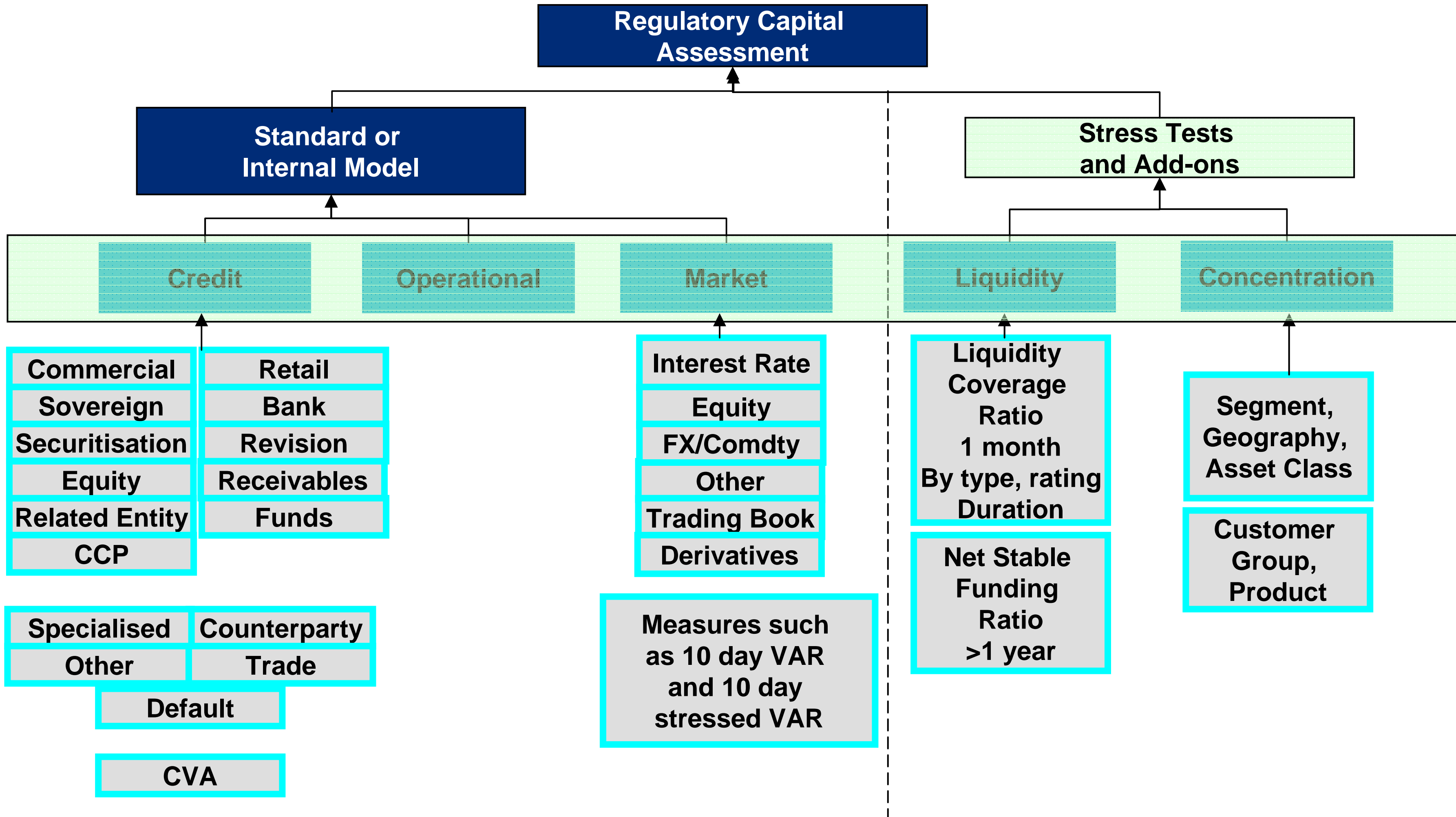
Risk Management

Similarities, Differences and Current Trends

Solvency II



Basel III



Solvency II and Basel III

- Downloaded technical specifications
- Carried out a word count on
  - Asset
  - Liability, liabilities, funding

	Solvency II	Basel III
Asset	285	295
Liability		

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Asset	285	295
Liability	307	?

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Asset	285	295
Liability, Funding	307	112

What are the differences?

- Separation of regulated activities
  - No new composites
  - Reinsurance vs insurance (to a lesser extent)
  - No separation in banking post repeal of Glass Steagall
- Focus of Pillar 1
  - Frequency of review
  - Contractual vs Behavioural models
  - Depth of correlation
  - Degrees of concentration

Why are they there?

- Origins of banking and insurance
- National v Global
  - Global banking is a new phenomenon
  - Banks are still fundamentally a series of nationally organised entities
  - Reinsurance has been international for a long time
- Money and hazard risks are different
- Insurers make policyholders part co-responsible

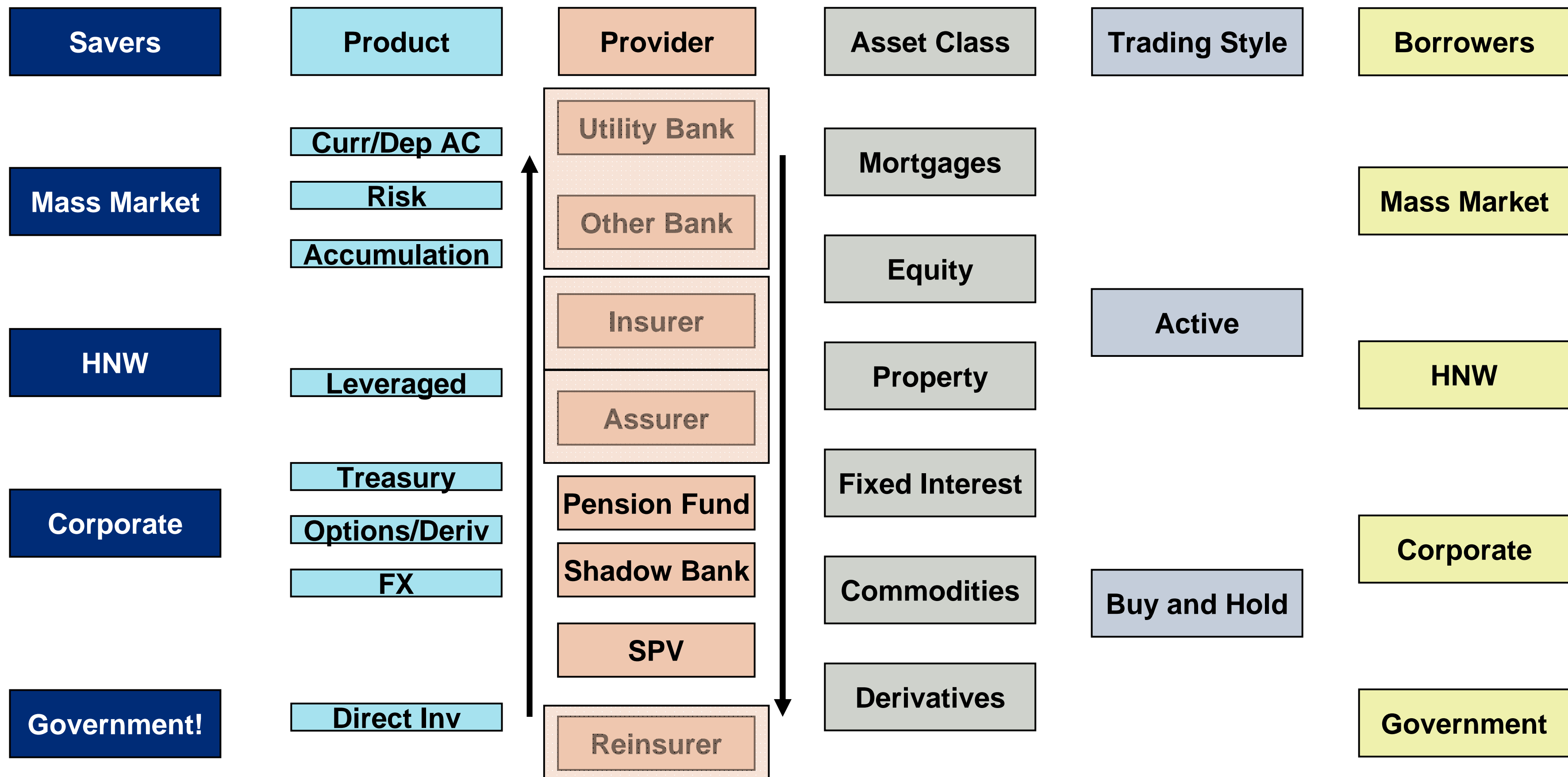
Risk Management 101
Meet customer needs

- Focus of RM has become too technical
  - The "easy" part!
  - Focus on balance sheet integrity needs to be matched by a focus on sustainable delivery meeting real customer needs
- Reputation counts
- FS industry has lost trust
  - Largest losses are miss-selling
    - Mortgage Endowment
    - ASU Products
    - Pension Miss Selling
    - Sub Prime and Equity Release
- Are we still risk managing the wrong process?

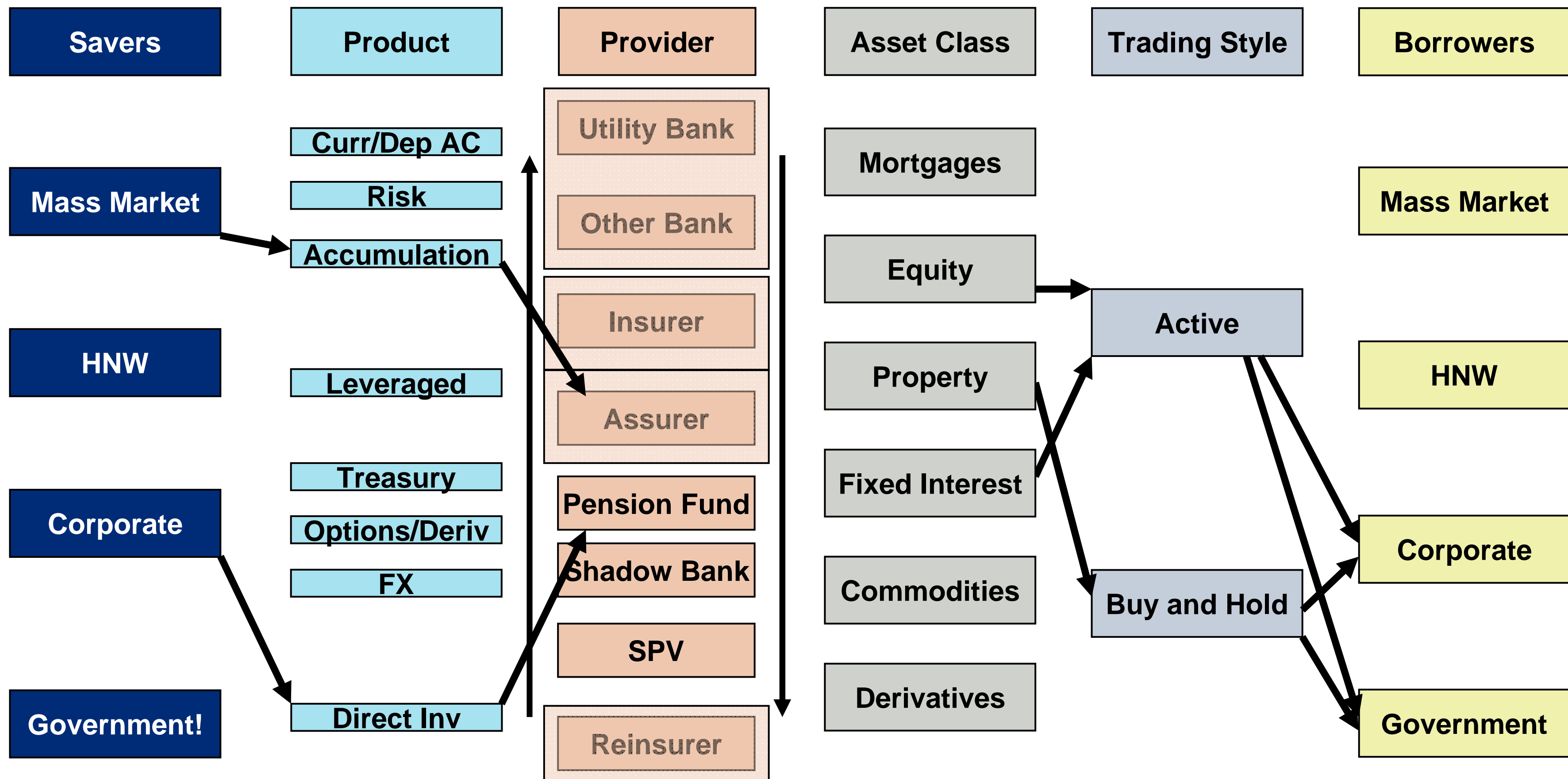
Meet customer needs

- Products and processes
  - Not about producing what we want to make but producing what the customer needs
- Producers arguments about efficiency usually understate risk
  - Volatility (returns or debt costs)
  - Cyclical factors (house prices or underwriting cycle)
  - Duration (funding mortgages from short term deposits)
- "Efficient" products have been very costly for customers
- Each sector has its skeletons in the cupboard
  - Pensions deficiencies (personal and corporate)
  - The reasons for the banking bust – they have not gone away
  - The culture of "small print" in insurance, cycles

Overall



Current Trend - Pensions



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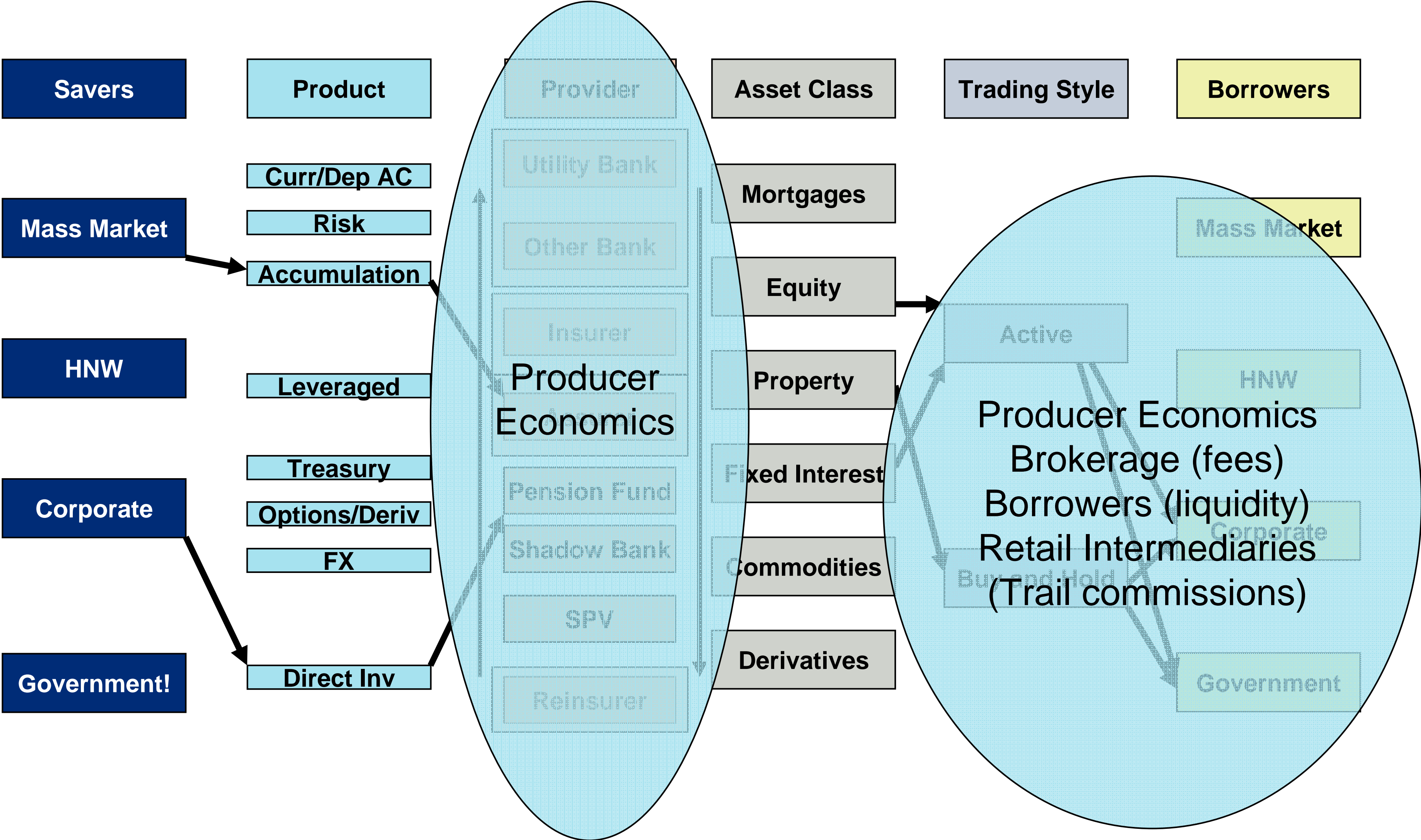
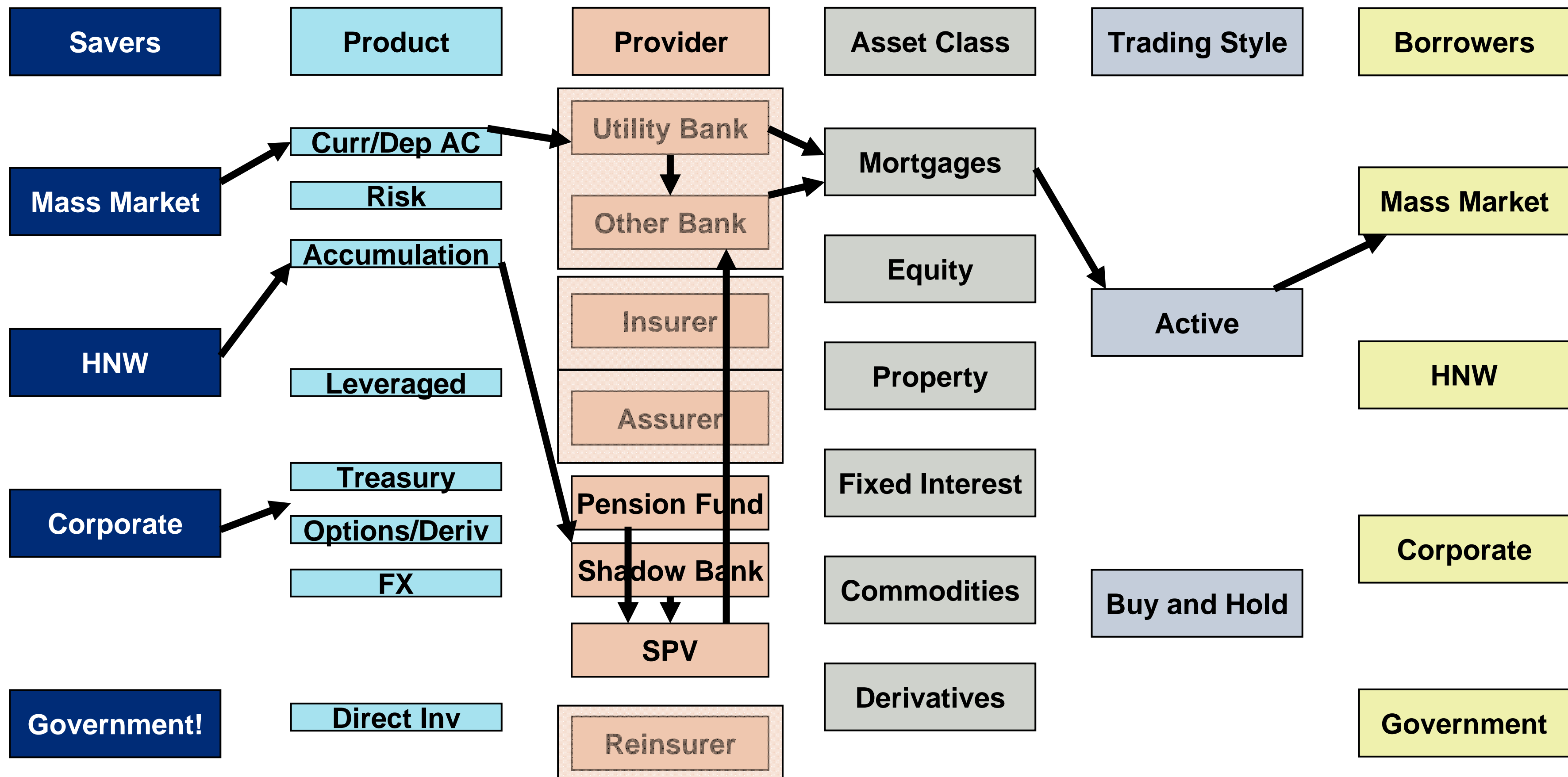


MBS



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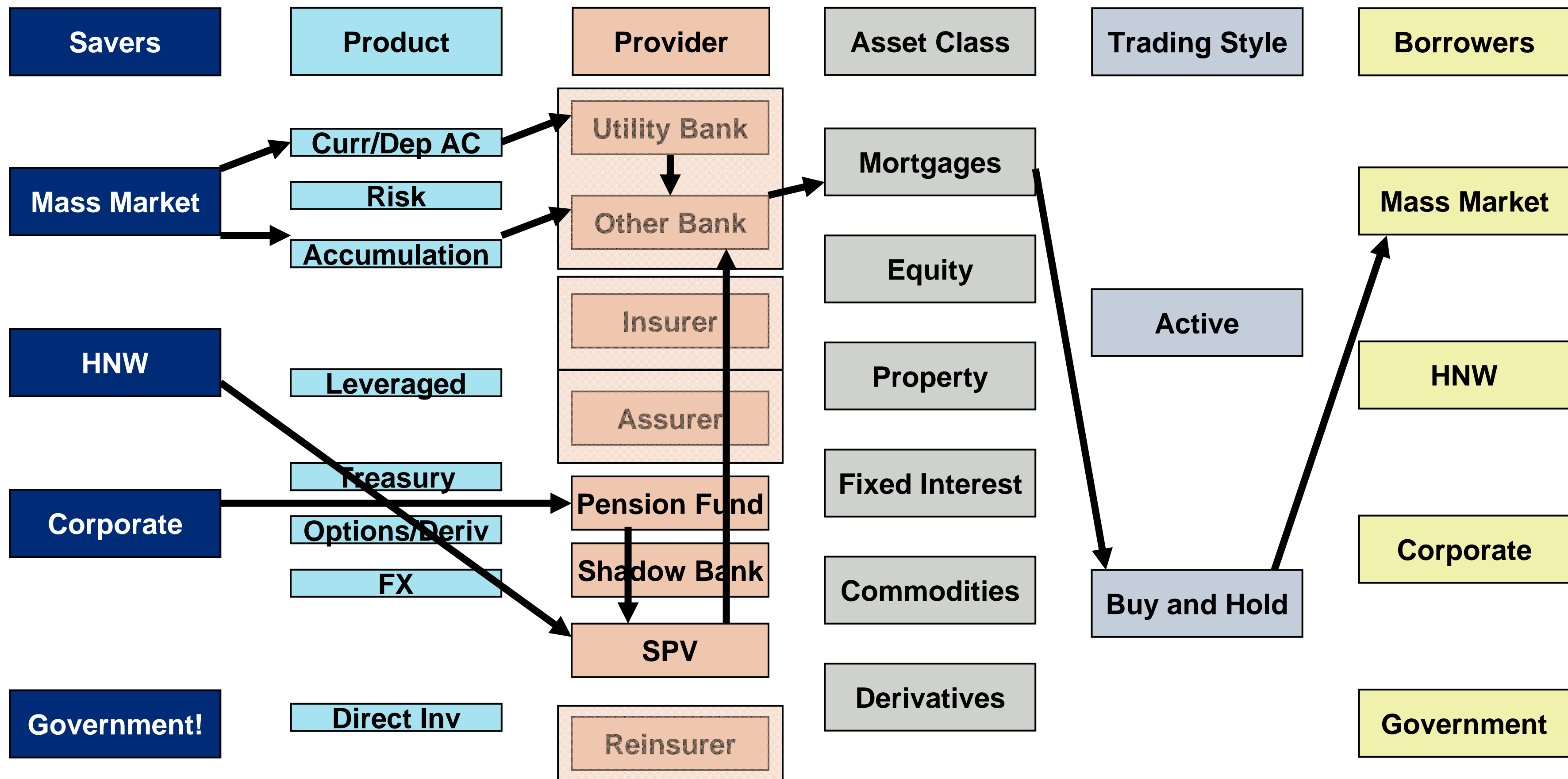

Some Certainties

- Failures will continue in both sectors
- Nobody really knows “how much capital is enough”
- The biggest risks are not measured
- Extreme events happen all the time
- Some FS companies have survived insolvency without knowing it!

Questions

Some key questions

- What has been learned from the financial crisis?
- To what extent does the harmonisation of regulation increase systemic risk?
- To what extent has pro-cyclicality in capital adequacy standards been addressed in recent regulatory developments?
- What will be in Basel IV that is not in Basel III?
- What will be in Solvency III that is not in Solvency II?
- What can bank risk managers learn from insurers?
- What can insurance risk managers learn from banks?
- What can both learn from other industries?