Brunnermeier et al. (2009)

THE FUNDAMENTAL PRINCIPLES OF FINANCIAL REGULATION

What we have learnt?

- The current philosophy of banking regulation – that you can make the system safe by making individual institutions safe – is unsatisfactory
- An unexpected loss of an institution may post systemic implication to other prudent institutions

What we have learnt?

- Funding liquidity and market liquidity are two key factors
- Northern Rock, Lehman Brothers and Bear Sterns
  - Inability to roll over their liabilities (funding liquidity)
  - Selling mortgage products at fire-sale prices (market liquidity)

Regulation of Liquidity and Maturity Mismatches

Part 5

It is inefficient to consider the quality of assets

- Previously:
  - If the quality of assets is high, a liquidity crisis might not have emerged
- However:
  - The financial system's reliance on short-term funding of long-term assets with potentially low market liquidity has been the main source of instability in this crisis

Two ideas to solve the problems

- Mark-to-funding accounting rule
  - Previously: Mark-to-market
  - Alternative: Hold-to-maturity
  - This approach: The combination between the two
- Explicit capital charge for liquidity risk
  - Financial institutions who hold assets with low market liquidity and long-maturity and fund them with short-maturity liabilities should incur a higher capital charge

Mark-to-Funding

- Objectives
  - To reduce the procyclicality that mark-to-market induces in asset booms and bust, due to the loss spiral
  - It seems that applying mark-to-market accounting to assets backed by long-term funding is not in the prudential interests of the firm

Mark-to-Funding

- The new approach is believed to
  - Better reflects the prudential interests of financial firms
  - Will limit forced sales of assets
  - More honest than a suspension of mark-to-market, or shifting to hold-to-maturity value
- The Principle
  - Assets should be valued and managed, not according to the intention of the holder, but to the funding capacity of the holder

Mark-to-Funding

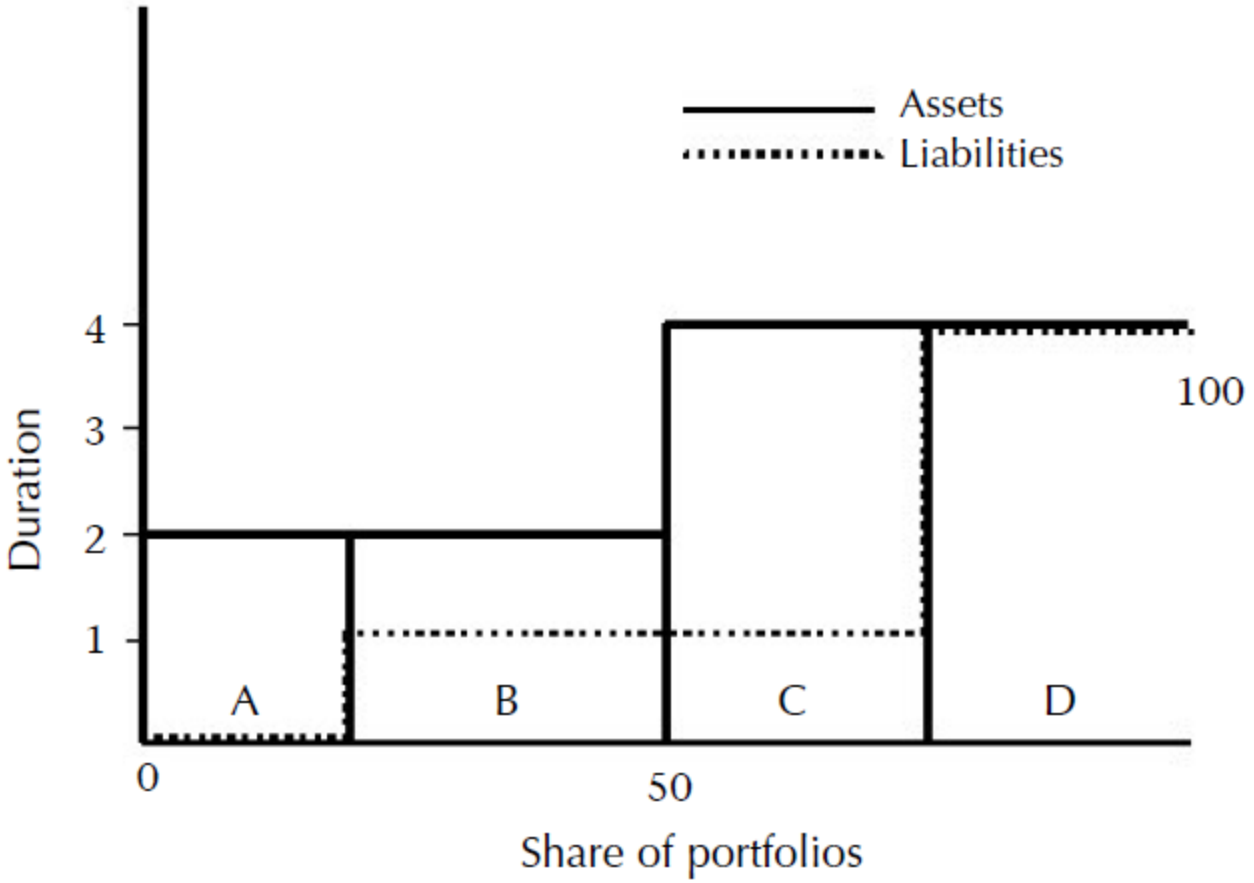
- Example
  - If a bank has funded its 20-year assets with 1-month borrowings, they should value the asset according to mark-to-market accounting
  - However, if the asset is funded with the issuance of a 10-year bond, the asset can be valued by a third party valuer on the basis of the present value
  - This valuation exercise would be best carried out on the basis of pools of assets and pools of funding

Mark-to-Funding

- If a bank is funded over the short-term, this method will be exactly the same as mark-to-market
- If, however, a bank held a pool of long-term assets using a pool of long-term funding, then it would not be forced to sell the assets
- The only problem left is the practical issue

Mark-to-Funding

Figure 5.1



Valuation Section A	Market price
Valuation Section b	1/2 market price, 1/2 PV
Valuation Section c	2/3 market price, 1/3 PV
Valuation Section D	PV

Mark-to-Funding

- The adoption of mark-to-funding may also encourage financial institutions with long-term funding to be buyers of distressed assets, which will also support market liquidity
- Allowing "hold-to-funding account" grants financial institutions some discretion how to value assets
  - Hence, the asset should be valued by a third party

Capital Charges against Illiquidity

- Regulatory capital should be set aside against the riskiness of the combination of an asset and its funding
- Objective: Encourage banks to find long-term funding, and discourage them from greater leverage
- If two banks hold the same asset, the one funding with term deposits would be set aside a lower amount of capital than the one funding with overnight borrowing

Capital Charges against Illiquidity

- In practical terms, adjustments to capital to reflect the maturity mismatch between assets and liabilities could be done as simple multiples to the current requirement
  - Make it easier to adopt
  - This makes risky assets more charges
- The multiple should be a function of the months of effective mismatch between the asset maturity and the funding maturity

Capital Charges against Illiquidity

- The problem left now is the calculation of effective maturities

Other Regulatory Issues

Part 6

Remuneration

- Perverse incentives may lead to unjustified risk taking and thus to contribute to systemic instability
- The authors do not believe that a public perception that financial sector salaries are "too high" is a sufficient reason for regulation

Remuneration

- However, there are 2 reasons for regulation:
  - Bankers' remuneration has incorporated insufficient internalizing of the social costs of excessive payment
  - The structure of remuneration may encourage decision makers to take risks whose social costs diverge from the costs facing the individual decision taker

Remuneration

- Some possible techniques:
  - Delayed payment of bunuses
  - Compensation should be tied strictly to risk-adjusted returns
  - Bonus payments could be withdrawn only after a suitable period had passed
  - Bonus should be based on firm-wide performance
  - Internal compensation committees could be required to have risk control staff

Other issues

- Loan-to-Value Ratios in Mortgages
- Credit Rating Agencies
- Centralized Clearing House Arrangement
- Year-end Spikes
- Crisis Management