Making Bank Resolution Credible

John Armour
Oxford University
The problem
Bank failure and systemic risk

- Losses to bank investors
- Losses to financial system
- Reduction in credit capacity
- Loss of credit screening/monitoring
- Losses to real economy
### ‘Paulson’s dilemma’

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>What’s Good</th>
<th>What’s Bad</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Bailout’</td>
<td>-Cost of saving troubled firm is much less than systemic losses avoided</td>
<td>-Moral hazard: encourages risk taking <em>ex ante</em></td>
<td>-Politically unpopular</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-National balance sheet (‘Iceland / Ireland effect’)</td>
</tr>
<tr>
<td>Bankruptcy</td>
<td>-Avoids perverse incentives <em>ex ante</em></td>
<td>-Contagion</td>
<td>-Financial sector meltdown?</td>
</tr>
</tbody>
</table>
Financial sector contagion

- Bank 1 (Failed)
  - Liabilities / assets written down
  - Delayed return of client assets

- Bank 2 (lender to B1)

- Bank 3 (Client of B1)

- Bank 4
  - Asset meltdown: fire sale of B1’s assets depresses market values

- Bank 5
  - Bank run: B5’s short-term creditors refuse to roll over debt

Institutions with contractual links

Institutions with correlated business models
Complementary *ex ante* regulation

- Tightening of capital adequacy rules
  - Basel III
  - Leverage ratio
- New liquidity rules
- Structural reform?
  - Volcker rule (US)
  - Vickers proposals (UK)
- Executive compensation rules
- Corporate governance reform?
First-generation resolution procedures: Expedited transfers
‘Special resolution’

Assets

Liabilities

Insolvent financial institution

Models: FDIC Receivership (US)
Banking Act 2009 (UK)
‘Special resolution’: sale

- ‘Good’ assets
- ‘Bad’ assets
- Liabilities

Protected liabilities (deposits)

Immediate transfer
- waive property rights
- guarantee
=> substitutes for due diligence

Assets + deposits

Purchaser

Insurance fund

guarantee

‘Special resolution’: sale
‘Special resolution’: funding

- ‘Good’ assets
- ‘Bad’ assets
- Protected liabilities (deposits)
- Liabilities
- Assets + deposits
- Insurance fund
- Purchaser
- $$$
- Subrogation
- guarantee
‘Special resolution’: bridge bank

- **‘Good’ assets**
- **‘Bad’ assets**
- **Protected liabilities (deposits)**
- **Liabilities**

**Assets + deposits**

**‘Bridge bank’**

**Temporary ownership**

**Resolution Agency**

Immediate transfer
- waive property rights
- temporary ownership by Resolution Agency
- creditors of bank receive share in proceeds of ultimate sale
Expedited transfer

• Transfer by operation of law
  – Waiver of ordinary rules of property and contract law

• Compensation of shareholders / unsecured creditors
  – ‘Insolvency benchmark’ : must receive no less than would get in formal insolvency proceedings; assuming no state financial support
(Likely) Triggers

- Resolution seen as ‘last resort’ before failure
- Preconditions (cumulative)
  1. Bank “likely to fail”:
     - Regulatory capital is or will soon fall below minimum required *or*
     - Assets are or soon will be less than liabilities *or*
     - Is or soon will be unable to pay debts as fall due
  2. No reasonable prospect of private sector intervention
  3. Resolution necessary in public interest
Scope of Application

• Traditional view
  – Bank run by depositors seen as principal channel of contagion
  – Footprint: deposit-taking institutions (e.g. FDIC receivership; UK Banking Act 2009)

• Modern view
  – Problem of ‘runs’ by short-term wholesale lenders (Gorton, 2008)
  – Problem of asset fire sale risk
  – Footprint: systemically significant financial institutions (= ‘banks + ’)
UK: Investment bank insolvency

- Complexity of ownership structures and security interests make it very difficult to disentangle client assets
- Waiving property rights won’t solve this—could exacerbate it
- Special Administration Regime for investment banks
- Ordinary insolvency + prioritise return of client assets + FSA override for systemic risk
## Implementation

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Scope</th>
<th>Authority</th>
<th>Powers</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK Banking Act 2009</td>
<td>Deposit taking institutions</td>
<td>FSA, Bank of England and Treasury</td>
<td>Waive property rights for sale / bridge bank</td>
</tr>
<tr>
<td>UK Investment Bank Special Administration Regs 2011</td>
<td>Investment firms</td>
<td>Insolvency practitioners and the FSA</td>
<td>Conduct procedure so as to mitigate systemic risk</td>
</tr>
<tr>
<td>US Dodd-Frank Act 2010</td>
<td>Deposit-taking and systemically important institutions</td>
<td>FDIC</td>
<td>Waive property rights for sale / bridge bank</td>
</tr>
<tr>
<td>Proposed EU Directive</td>
<td>Credit institutions &amp; certain investment firms</td>
<td>National authorities + EBA ‘mediation’</td>
<td>Waive property rights for sale / bridge bank</td>
</tr>
</tbody>
</table>
Is Resolution Credible? (1)

• Problem (1): Complexity / time
  – Can resolution of a SIFI feasibly be achieved in a weekend?

• Proposed solution: ‘living wills’
  – Resolution plan prepared by SIFI in conjunction with authorities
Is Resolution Credible? (2)

- Problem (2): International co-ordination
  - Problem of burden sharing
    - Whose authorities will underwrite?
    - Whose depositors will lose money?
  - Problem of territoriality
    - Reolution powers only encompass assets and debtor entities *in the jurisdiction*
      - Asset territoriality (e.g. Landsbanki / UK)
      - Entity territoriality (e.g. Lehman / UK)
International frameworks

• Proposed EU Directive
  – Harmonize national resolution frameworks
  – ‘Resolution colleges’ lead by regulator in country of parent entity, coordination via EBA

• FSB Consultation Paper (July 2011)
  – Model law for national resolution frameworks
  – Institution-specific cooperation agreements

• How much can be achieved by cooperation?

• Genuine cross-border resolution regime?
  – Draft proposals for EU?
Problem (3): who will buy a distressed SIFI?

- **Private sector** purchasers facing severe adverse selection and liquidity problems
- Adverse impact on **sovereign** balance sheets (Acharya, Drechsler & Schnabl, 2011)
- **Bridge bank** requires funding / guarantees to operate

Problem (4): where will funding come from?
Resolution Funds
US: Orderly Liquidation Fund

• Dodd-Frank Act of 2010 § 214(c)
  – ‘Taxpayers shall bear no losses’

• Amount of FDIC funding for resolution
  – 10% of total value of troubled bank’s assets / 90% of market value of liquid assets (§ 210(n)(6))

• Source
  – Initially: FDIC borrows from US Treasury
  – Repayment: FDIC to seek recoupment from financial institutions (i) assessment on creditor FIs; (ii) general systemic risk-weighted assessments
EU: Bank Resolution Funds

- Commission Communication 26.05.2010
- Proposed Directive expected 06.06.2012

- National resolution funds *pre-funded*
  - Annual levy on relevant financial institutions
  - Cross-deployable with deposit guarantee schemes
  - Minimum ~ 1% of covered bank deposits

- Proposals for cross-national borrowing
- Consider European resolution fund in 2014
Ex post vs Ex ante

- **Ex post**
  - Creates incentives for cross-monitoring? (Calomiris, 2010)
  - But undermines goal of mitigating contagion?
- **Ex ante**
  - Assessment algorithm crucial to incentives
  - Cross-deployment with deposit guarantee schemes may weaken effective clout
Second-generation resolution mechanisms:
Expedited recapitalization or ‘bail-in’
Proposals

• Commission Proposals
  – Technical consultation paper 06.01.2011
  – Discussion paper 31.03.2012
  – Proposed Directive Expected 06.06.2012

• FSB, *Key Attributes of Effective Resolution Regimes*, October 2011

• IMF, *From Bail-out to Bail-in*, April 2012
‘Bail in’/mandatory recapitalization

Assets

Protected liabilities

Other liabilities

Becomes

Assets

Protected liabilities

Other liabilities

Immediate recapitalization by debt-to-equity swap
• Bail-in could be effected by
  – Statutory provisions giving regulators power to recapitalize on certain triggering events.
  – Contractual provisions for recapitalization, or for regulators to have power to recapitalize, on certain triggering events.
Advantages of recapitalization

• Complexity reduced
  – No need to effect an asset transfer, business remains intact

• International coordination made easier
  – Change is to contracts, not property rights
  – Can in principle ensure debt contracts are all subject to a single law

• No need to find a purchaser
Negative feedback problems

1. Short term creditors
   - Creditors anticipate bail-in and so refuse to roll over: triggers bank run?

2. Shareholders
   - Paradoxically, anticipation of credible resolution will depress stock price
   - Makes it more difficult to raise fresh equity in times of trouble
Scope of bail-in (DP, March 2012)

• Exclusions
  – Secured claims (up to value of collateral)
  – Derivatives
  – Deposits and other short term liabilities

• Included
  – Long term debt
  – Deposit guarantee schemes

• What is ‘short term’?
  – Version 1: up to one month maturity
  – Version 2: up to one year maturity
Bail in and bank capital structure

• ‘Superpriority’ for short term claims
  – banks have incentive to rely more on these in capital structure

• Necessary to treat ‘bail-inable’ capital as part of regulatory capital requirements
  – Proposal: EU-wide rule, 10% of total liabilities
  – Key insight: need to view ‘resolution readiness’ as part of capital framework
The market for bail-inable debt

• Who will buy?
  – Need to restrict other banks from purchasing?
  – Hedge funds may have appetite: but cf bank ownership rules?

• How will it be priced?
  – Pricing will depend on capital levels of bank: desirable to think about BID/capital together
  – Tax shield may reduce cost of BID relative to capital: depends on being treated as “debt” for tax purposes; cf contingent convertibles
Structural reforms
Vickers ‘ring-fencing’ proposals

• Separate retail and investment banking
• Facilitate resolution
  1. Simplification: operational and geographic separation
  2. Reduction of cost: target resolution funding at retail banks
  3. Mitigate contagion: insulate retail banks from effect of failure by investment bank
Bank failure and systemic risk

- Losses to bank investors
- Losses to retail banks
- Losses to investment banks
- Losses to real economy
Bank failure and systemic risk

- Losses to bank investors
- Losses to retail banks
- Losses to investment banks
- Losses to real economy

?
Conclusions
Outlook

• Transfer-based resolution is no panacea for troubled banks (lack of purchasers, funding)
• Major problems of international coordination

Ways to make resolution credible:

1. Recapitalisation (bail-in) ‘designed-in’ *ex ante* through capital adequacy oversight
2. Ring-fencing of functions crucial for real economy