

Comments by Rafael Repullo on

Taming SIFIs

Xavier Freixas and Jean-Charles Rochet

Workshop on Bank Insolvency, Restructuring, and Recapitalisation

Austrian National Bank, Vienna, 16 September 2010

Purpose of paper

- Model systemically important financial institutions (SIFIs)
 - Institutions that are too big to fail
 - Institutions that are too big to be privately rescued
- Discuss optimal regulation by systemic risk authority (SRA)
 - Recapitalizes SIFI after crisis
 - Sells SIFI to new shareholders
 - Controls manager's compensation after crisis
 - Levies systemic tax

Purpose of paper

- Timely paper on important topic
- One of the four critical areas in Pittsburgh Declaration of G-20:
“Addressing cross-border resolutions and systemically important financial institutions by end-2010”

Overview of discussion

- Brief review of the model and the results
- Preliminary comments on terminology
- Comments on model setup
- Brief review of the analysis
- Concluding remarks

Part 1

Review of model and results

Model setup

- Discrete time, infinite horizon: $t = 0, 1, 2, \dots$
- Bank that at any date $t > 0$ gets
 - Cash flow $\mu > 0$
 - Large loss $C > 0$ with (iid) probability λ
- Bank owned by shareholders with discount factor δ
- Bank run by manager
 - Discount factor $\delta_M < \delta$ (more impatient than shareholders)
 - Requires expected utility U
- Moral hazard in choice of $\lambda \rightarrow$ managerial private benefits

Model setup

- What happens when loss C realizes?
 - Private insurance is not possible (large C)
 - SRA restructures bank (too big to fail)
 - Pays restructuring cost I
 - Sells bank to new shareholders for price S
 - New shareholders hire new manager

Main results (for small λ)

- Optimal contract with manager (based on BMPR)
 - Golden handshake upon hiring
 - Single grace period: high/low bonus, no firing
 - After grace period: bonus/firing
- Optimal regulation by SRA
 - Always recapitalize bank after crisis
 - Levy systemic tax to recover expected cost of crises
 - Control manager's compensation during grace period

Part 2

Preliminary comments on terminology

Preliminary comments (i)

- What do we mean by “bail out”?
 - “Any large financial institution that encounters problems can be expected to be bailed out by the public authorities”
- Possible meanings
 - Managers are not fired
 - Shareholders are not wiped out
 - Debtholders do not suffer any losses
- It would be desirable to be more precise!

Preliminary comments (ii)

- What do we mean by “market discipline”?
 - “To commit to an unconditional support is a disaster in terms of moral hazard and market discipline”
- Possible meanings
 - Disciplining managers?
 - Disciplining shareholders?
 - Disciplining debtholders?
- Need to be clear about nature of moral hazard problem!

Preliminary comments (iii)

- What do we mean by “closure”?

“The closure of the SIFI would inflict too large externalities on the rest of the economy”

- Possible meanings
 - Institution is liquidated and assets are sold
 - Institution is not liquidated but liabilities are restrutured
- Again, it would be desirable to be more precise!

Preliminary comments (iv)

- What do we mean by “systemically important”?
 - “The term ‘systemically important’ refers to the fact that public authorities cannot let it shut down”
- Why not?
 - Are externalities more than proportional with size?
 - What about tax distortions following recapitalization?
- Again, it would be helpful to be more precise!

Part 3

Comments on model setup

Comments on model setup (i)

- What is the nature of the loss C ?
 - Bank interpretation of model: deposit liabilities
 - In crisis: value of assets is zero + deposits repaid in full
- Note that C is a constant independent of
 - Contract between shareholders and manager
 - Regulation of SRA
 - This is a model with fully insured debtholders

Comments on model setup (ii)

- Why do we need manager's expected utility U ?
 - One interpretation: cost of training the manager
 - Does not seem very appealing
 - Especially if U plays significant role in model

Comments on model setup (ii)

- Why do we need manager's expected utility U ?
 - Another interpretation: opportunity cost of the manager
- Implicit assumption: manager never works after being fired
 - Why not assume that she gets U for rest of her life?
 - Even better, why not assume $U = 0$?
 - It would simplify the model
 - It would get rid of golden handshake

Comments on model setup (iii)

- Why the special form of (managerial) moral hazard?
 - Higher probability λ of loss C against private benefits B
 - There is no upside for shareholders
 - Their interests are aligned with those of the regulator!

Comments on model setup (iv)

- What is the role of the systemic tax T ?
 - To balance government budget
 - But only in expected terms
 - If other taxes are distortionary this may be a problem
 - Tax does not induce any change in behavior
 - Not Pigouvian
 - Why not simply assume lump sum taxes?

Comments on model setup (v)

- What is the nature of the restructuring cost Γ ?
 - Cost of firing incumbent manager? → should be zero
 - Cost of expropriating shareholders? → should also be zero
 - Cost of liquidating assets? → they are worthless
 - Cost of compensating debtholders? → it's already in C
- My preferred interpretation
 - Cost of finding a new manager (search cost)
 - Do we think that search costs are that important?

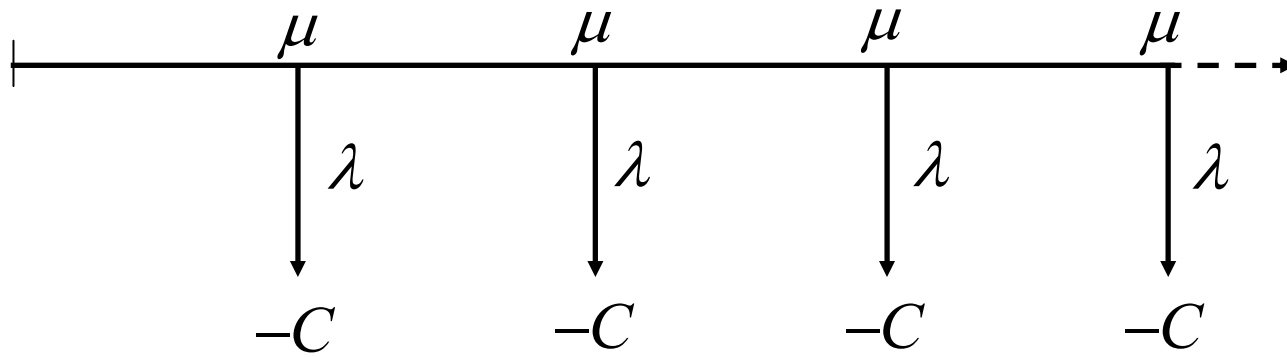
Comments on model setup (v)

- Why not assume that the restructuring cost $\Gamma = 0$?
 - It would get rid of core of paper (application of BMPR)
 - Grace period for new manager justified to save cost Γ
 - When $\Gamma = 0$ results are (almost) trivial

Part 4

Review of analysis

Time line



Model without moral hazard

- Optimal policy

→ Value function of social planner

$$V = \delta \left[(1 - \lambda)(\mu + V) + \lambda \max \{ \mu - C + V, 0 \} \right]$$

→ Condition for keeping bank open: $\mu - C + V \geq 0$

→ Result: The bank will be kept open if

$$\mu \geq [1 - \delta(1 - \lambda)]C$$

in which case

$$V_{FB} = \frac{\delta(\mu - \lambda C)}{1 - \delta}$$

Model without moral hazard

- Shareholders policy

→ Value function of shareholders

$$V = \delta(1 - \lambda)(\mu + V)$$

→ Assuming that they cannot raise funds to cover loss C

→ Charter value of bank

$$V = \frac{\delta(1 - \lambda)\mu}{1 - \delta(1 - \lambda)}$$

Model with moral hazard

- Manager gets bonus s if no loss and gets fired if loss ($U = 0$)
- Manager's IC constraint

$$(1 - \lambda)(s + w) \geq (1 - \lambda - \Delta\lambda)(s + w) + B$$

$$\text{where } w = \delta_M (1 - \lambda)s + \delta_M^2 (1 - \lambda)^2 s + \dots = \frac{\delta_M (1 - \lambda)s}{1 - \delta_M (1 - \lambda)}$$

$$\text{which implies } s = \frac{[1 - \delta_M (1 - \lambda)] B}{\Delta\lambda}$$

→ Optimal policy: replace μ by $\mu - s$

→ Shareholders policy: replace μ by $\mu - s$

Concluding remarks

- Academic research is based on precision and rigor
 - Let's be careful with the terminology that we use
- What is missing?
 - More attention to the nature of SIFIs
 - Uninsured debtholders
 - Conflict between shareholders and regulators
 - Rationale for bank capital