

Bail-ins and Bail-outs: Incentives, Connectivity, and Systemic Stability

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An Important Policy Question

Regulators have begun to move away from traditional bail-outs to bail-ins.

"...However, [...] from an economic point of view, the main risk associated with bail-in is that the imposition of losses on specific classes of creditors could give rise to adverse systemic effects [...] Those effects could stem from the direct impact of bail-in on the solvency of affected creditors, such as institutional investors..."

- Fernando Restoy, Chairman, BIS Financial Stability Institute

This paper provides a tractable framework for studying welfare losses of bail-out and bail-in policies considering contagion spillovers and incentives of an interconnected system.

Also an important Contribution to the Literature

Network structure and contagion

- 1 Direct bilateral exposures
- 2 Indirect/common exposures

Network formation

Also an Important Contribution to the Literature

Network structure and contagion

- ① Direct bilateral exposures and contagion
 - Seminal paper: Eisenberg and Noe (2001)
 - Acemoglu et al. (2015)
 - shows that more connected networks reduce welfare losses through diversification when initial shocks are small but amplify risk when initial shocks are large
 - **This paper**
 - **considers strategic interaction between social planner and financial institutions in bank resolution**
 - **shows that results can reverse**

- ② Indirect/common exposures and contagion

Network formation

Main Result

- Non-intervention vs. bail-outs vs. (subsidized) bail-ins
- Welfare losses = fire sale loss + bankruptcy cost + taxes for public bailout
- If losses(non-intervention) > losses(bailout), non-intervention is not credible
- Subsidized bail-ins can only be enforced if non-intervention is credible

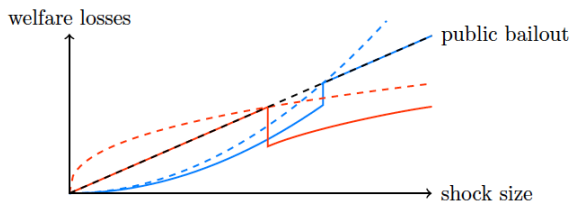


Figure 1: The figure compares equilibrium welfare losses in the complete (blue) and the ring network (red) in the presence (solid lines) and absence (dashed lines) of intervention. 5

Network structure and contagion

- ① Direct bilateral exposures and contagion
 - This paper analyzes welfare implications of strategic interactions between social planner and financial institutions in bank resolution
- ② Indirect/common exposures and contagion
 - Suggestion I: Equilibrium fire sale price
 - Suggestion II: Asset Riskiness

Network formation

- Suggestion III: Endogenize Network Structure (next paper?)

Suggestion I: Equilibrium Fire Sale Price

- Current fire sale loss is a constant α
- In reality, fire sale losses are determined in equilibrium, where prices decrease as more banks decide to sell
- At the portfolio level, the higher the asset commonality, the larger the marginal impact of a given bank's sale on the firesale discount
- May consider to adopt a simplified version

Suggestion II: Asset Riskiness

"Burden-sharing ensures that the link between a banks failure and the responsibility of shareholders and creditors is not entirely diluted" -
Ignazio Angeloni, ECB Supervisory Board Member

- In other words, bail-ins are aimed at reducing moral hazard
- The current framework takes initial shocks as given

To analyze which interventions align ex ante incentives

- May allow banks to choose their riskiness
- May further decompose total risk into systematic risk (asset commonality) + idiosyncratic risk + noise

Suggestion III: Endogenize Network Structure

- Network formation matters in this context in part because
 - Network structure can form links to induce social planner's actions
 - bargaining power of banks with respect to each other and the social planner will change the equilibrium
- Tractability concerns...maybe better for another paper