

Discussion of:
“Financing and resolving banking groups”
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Fourth Conference on Financial Stability
Banco de España - CEMFI
2023

Summary

- Bank resolution: restructuring of liabilities to limit disruptions on operations
 - ▶ Involves dilution of creditors (typically equity and unsecured long-term debt)
- Resolution of banking groups (BHCs):
 - ▶ Single Point of Entry (SPOE): resolution of banking group as a whole
 - ▶ Multiple Point of Entry (MPOE): resolution at subsidiary level

What is the optimal resolution strategy for a banking group (BHC)?

- Should creditors from one subsidiary be diluted to compensate losses from another one?

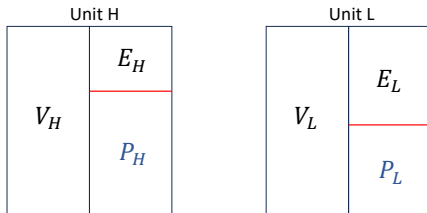
This paper:

- Theoretical framework that emphasizes a **trade-off**:
 - ▶ SPOE resolution (BHC commitment to bail-in any subsidiary) is optimal **ex-post**
 - ▶ But can deter investment **ex-ante**
- ⇒ Under certain conditions (asymmetric losses from a subsidiary): MPOE better than SPOE
- ⇒ Resolution regime should be bank specific

Outline

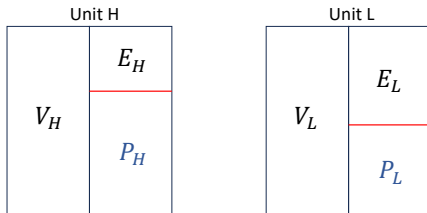
- Simplified (“Mickey Mouse”) version of the model
- Comments

Illustration of model: Setup



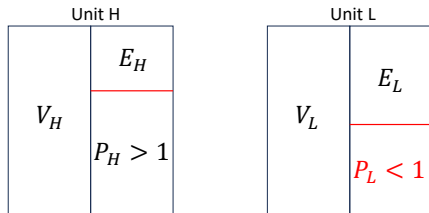
- Consider two bank units $i = \{H, L\}$ with access to a project with value V_H, V_L
 - ▶ Financing cost of each project is 1
 - ▶ Both projects have positive NPV: $V_H \gg 1, V_L \gg 1$
 - ▶ Projects require additional funding with some probability (still positive NPV)

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 - ▶ Both projects have positive NPV: $V_H \gg 1, V_L \gg 1$
 - ▶ Projects require additional funding with some probability (still positive NPV)
 - **Funding friction:** Enough payoffs must be promised to insiders due to agency friction
 - ▶ Part of bank value E_H, E_L must compensate “bankers” (managers, inside equity)
 - ▶ Only part of bank value P_H, P_L is **pledgeable** to outsiders (which provide financing)
- ⇒ Financing a project as a stand-alone bank requires $P_i > 1$!

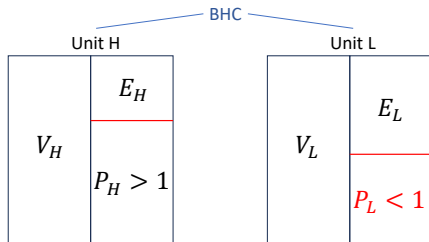
Banking group



Interesting case (in which choice of resolution regime matters):

- $P_L < 1 \Rightarrow L$ -unit cannot fund itself
- $P_H > 1$ and $P_H + P_L > 2$

Banking group

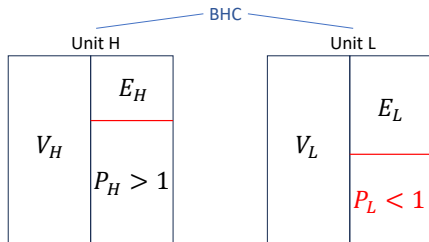


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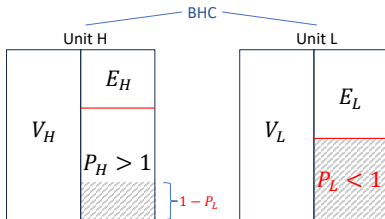
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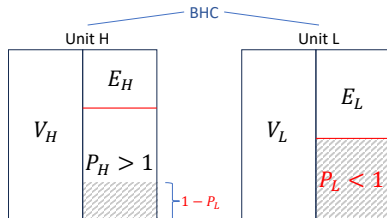
- In the paper:
 - ▶ Banking group also adds pledgeability value $P_H + P_L + P_S$ due to synergies
 - ▶ Interesting but not needed for main result (so I'll assume $P_S = 0$)

Interim liquidity shock



- With probability q_L : project L requires additional 1 unit of funds or project is lost
- Reinvestment requires transfers from initial-creditors to new-creditors → **Bail-in**

Interim liquidity shock



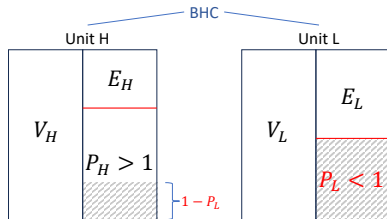
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Pledgeable value of banking group for initial creditors (P_0):

- Without re-investment: initial creditors lose P_L

$$P_0^{\text{without}} = P_H + (1 - q_L)P_L + q_L(0)$$

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- With re-investment: initial creditors lose more

$$P_0^{\text{with}} = P_H + (1 - q_L)P_L - q_L(1 - P_L)$$

⇒ Commitment to reinvest (bail-in) is detrimental for initial creditors: $P_0^{\text{with}} < P_0^{\text{without}}$

Optimal re-investment and resolution strategy

Trade off:

- **Ex-post:** reinvestment is always optimal since $V_L \gg 1 \rightarrow$ but hurts initial creditors
- **Ex-ante:** if expected bail-in dilution is large \rightarrow initial creditors will NOT finance BHC

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\Rightarrow Financing at $t = 0$ and re-investment at $t = 1$

Case 2: Expected bail-in $q_L(1 - P_L)$ is large (such that $P_0^{\text{with}} < 2$)

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Resolution: If bankers declare the shock:

- Regulator takes control and reorganizes financial structure (diluting claims as needed)
- Regulator objective is to maximize NPV \rightarrow continue project (bail-in) if possible

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- **Regime SPOE:** Bank holding company is the sole entry point
 - ▶ Regulator can and will dilute claims from H -unit to continue project \rightarrow full bail-in
 - \Rightarrow Commitment to reinvest and bail-in!
- **Regime MPOE:** L -unit is the entry point
 - ▶ Regulator can only dilute claims from L -unit to continue project \rightarrow only P_L bail-in
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Optimal re-investment and resolution strategy

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Case 1: Expected bail-in $q_L(1 - P_L)$ is small (such that $P_0^{\text{with}} > 2$)

\Rightarrow Financing at $t = 0$ and re-investment at $t = 1 \Rightarrow$ **SPOE optimal**

Case 2: Expected bail-in $q_L(1 - P_L)$ is large (such that $P_0^{\text{with}} < 2$)

\Rightarrow No financing at $t = 0$

\Rightarrow It is ex-ante optimal to commit to not reinvest in L-unit! \Rightarrow **MPOE optimal**

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Highlights

Clear and interesting message about optimality of resolution regimes:

- SPOE resolution (commit to bail-in) can be optimal ex-post... but can deter investment ex-ante
- Resolution regime should be bank specific (due to ex-post vs ex-ante trade off)

Paper includes bankers' agency frictions that are alleviated by the banking group

- Interesting! → incentives' complementarities from operating different subsidiaries
- But it does not look necessary for the main results

Comment #1: SPOE vs MPOE or Resolution vs Liquidation?

In the model:

- MPOE is optimal when L -unit expected bail-in dilution is large
- In that case, L -unit is liquidated and there are no (bail-in) losses bear by H -unit creditors

⇒ **MPOE is optimal** for the cases in which L -unit **is liquidated** after a shock

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Paper's message:

- Under some circumstances (expected bail-in dilution is large) ⇒ MPOE better than SPOE

Actually it looks like the message is:

- Under some circumstances: Liquidation better than Resolution!
- When Resolution is better than Liquidation ⇒ SPOE better than MPOE

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- When Resolution is better than Liquidation ⇒ SPOE better than MPOE
- Might be useful to relate it to Bolton and Scharfstein (1990, 1996)
 - ▶ Limits to renegotiation (commitment to terminate funding) mitigates incentives problem

Comment #2: Who are the bankers? → Bail-in without equity dilution?

In the model:

- Bankers are motivated as insiders that require skin-in-the-game
 - ▶ Managers, inside equity?
 - ▶ But they are NOT diluted after a resolution → required to maintain (bank) project value
 - Bankers obtain ALL benefits from resolution and bail-in
- ⇒ Main purpose of resolution/regulator → is to protect bankers (insiders) value
- ▶ At expense of other creditors!

In practice: dilution order starts with managers and equity holders, then creditors

- Is this the right framework to think about resolution?
 - Alternative interpretation as depositors?
 - ▶ Could bankers (secured by bail-in) be interpreted as depositors instead of inside equity?
- Main purpose of regulation would limit depositor losses and systemic bank run

Other comments

What is the liquidity shock? (assumed to be exogenous in the model)

- If the arrival of a shock is related to bankers' choices:

⇒ Resolution in which bankers keep their stake may give bad incentives

- If the arrival of a shock is related to creditors' choices:

⇒ SPOE could give good incentives (relative to MPOE)

- In Bolton and Scharfstein 1990: shock arrival is related to rivals' choices!

Another potential concern with MPOE:

- If creditors learned that L -unit will enter resolution, could assets be diverted from L -unit to H -unit?

Conclusion

- Very interesting paper on a very important topic!
- It is crucial to think about ex-ante incentives when designing resolution framework