The Spillover Effects of Forced Bank Recapitalizations and Government Guarantees

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Regulatory Application

- A bank owns two subsidiaries
  - One strong subsidiary in NY
  - One weak subsidiary in Texas
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- One strong subsidiary in NY
  » Highly capitalized due to profits earned in regional boom

- One weak subsidiary in Texas
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  » Highly capitalized due to profits earned in regional boom

- One weak subsidiary in Texas
  » Undercapitalized due to losses suffered in regional recession
Motivation

- Regulator insures deposits at weak subsidiary
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❖ Regulator insures deposits at weak subsidiary

❖ Parent is well-capitalized, but chooses not to replenish
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❖ Possible Solution?
Regulator could unilaterally strengthen enforcement of capital requirement at weak sub
Research Question

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  » ✓ Sibling Spillover Effect: Parent shrinks lending at strong subsidiary compared to local competition
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❖ Decline in lending growth at both weak and strong subs
Natural Experiment

- 1989Q1: President Bush announces the Cross-Guarantee Authority
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  » (2) Increased probability that the regulator will pull the plug on an undercapitalized subsidiary

- Raised optimal capital ratio at weak subsidiary
Balance Sheet View of Results

- High Capital Sub
- Low Capital Sub
- High Capital Parent
Balance Sheet View of Results

High Capital Sub

\[ A^H \]

\[ E^H \]

Low Capital Sub

\[ A^L \]

\[ E^L \]

High Capital Parent
Balance Sheet View of Results

High Capital Sub:
\[ \frac{E^H}{A^H} \]

Low Capital Sub:
\[ \frac{E^L}{A^L} \]

High Capital Parent
Balance Sheet View of Results

High Capital Sub

\[
\frac{E^H}{A^H}
\]

Low Capital Sub

\[
\frac{E^L}{A^L}
\]

Surprise Law Raises Optimal Capital Ratio

High Capital Parent
Balance Sheet View of Results

High Capital Sub

\[
\frac{E^H}{A^H}
\]

Low Capital Sub

\[
\frac{E^L}{A^L}
\]

→ High Capital Parent

1
Balance Sheet View of Results

High Capital Sub

\[
\frac{E^H}{A^H}
\]

Low Capital Sub

\[
\frac{E^L}{A^L}
\]

High Capital Parent
Balance Sheet View of Results

High Capital Sub

\[ \frac{E^H}{A^H} \]

Low Capital Sub

\[ \frac{E^L}{A^L} \]

High Capital Parent

No External Equity Issuance

1

2
Balance Sheet View of Results

High Capital Sub

\[
\frac{E^H}{A^H}
\]

Low Capital Sub

\[
\frac{E^L}{A^L}
\]
Balance Sheet View of Results

High Capital Sub

\[
\begin{align*}
E^H \\
A^H
\end{align*}
\]

Low Capital Sub

\[
\begin{align*}
E^L \\
A^L
\end{align*}
\]

Negative Shock to Lending

High Capital Parent
INTERNAL CAPITAL TRANSFER
RESULTS
Low Capital Subsidiaries

Cross-Guarantee Authority

Internal Capital Flow / Total Assets (%)

Year

Recapitalization Speed of Low Capital Subs
High Capital Siblings

![Graph showing net capital flow and cross-guarantee authority over years with a comparison between high capital subs with and without low capital siblings.](image-url)
SPILLOVER EFFECTS ON SIBLING LENDING
High Capital Subs

Cross-Guarantee Authority

High Cap Subs that do not have a Low Cap Sibling

High Cap Subs that have a Low Cap Sibling

Date

Loan Growth (%), S.A.


-1 0 1 2
Consolidated Lending Effects

![Graph showing loan growth percentage over time for different types of subsidiaries. The graph indicates that high-cap subsidiaries without low-cap siblings have different patterns of loan growth compared to those with low-cap siblings.]
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  » This reluctance to issue results in a spillover effect on the strong sibling’s lending via internal capital markets
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❖ G-SIFI application: International policy coordination important
Unilateral policy actions to protect the national deposit insurance fund can transmit negative spillover effects to the credit growth of siblings in foreign jurisdictions.
THANK YOU
FOR YOUR ATTENTION

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APPENDIX
Subsidiary Capital Requirements

- Subsidiary Capital Ratio
- Capital Requirement: 5.5%
- Regulatory Penalties:
  - Fines
  - Capital Restoration Plan
Subsidiary Capital Requirements

Capital Requirement

5.5%

Subsidiary Capital Ratio

Regulatory Penalties:
- Fines
- Capital Restoration Plan

Regulator can revoke charter at its discretion
Subsidiary Capital Requirements

Regulator can revoke charter at its discretion

Capital Requirement

5.5%

Subsidiary Capital Ratio

Regulatory Penalties:
- Fines
- Capital Restoration Plan

prob
Locations of Low Capital Subs
Persistence of Undercapitalization

- 1 Year
- 2 Years
- 3 - 5 Years

Years PRIOR to 1989Q1

Percent
Internal Capital Transfer Definition

Internal Injection Flow − Internal Dividend Flow
Sub Assets