CEO Ownership, Risk Management, and Bank Runs at Unlimited Liability Banks during the 1890s

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Main takeaway

- **Research Question**: How do managers' '*skin-in-the-game*' shape bank risk-taking and distress outcomes?

- **Setting: California Banks during Panic of 1893**
  - Presidents were mandated to hold bank stocks, resembling
    - Restricted stock option $\rightarrow$ difficult to sell
    - Clawback provisions $\rightarrow$ (un)limited liability rule: *obligated to cover unpaid debts owed to depositors*
  - Managers personally accountable in the event of **bank failure**. *prioritize long-term growth* + *discourage excessive risk-taking*
  - Minimal bank regulations: reveals their risk-taking preferences

- **Main Takeaway**.
  - Presidents with greater *liability exposure* adopt more conservative risk management strategies (LR, SR, CR)
  - Connected with lower likelihood of bank run or failure

Analysis (1890-1896): Extended and Exploratory

President's Limited Liability (LL)

BS paid-in capital to lose in the event of failure

$pCEO_{Capital} = pCEO \text{ x } (\text{Paid-in Capital})$

Using Dollar Value (instead of share)
- unobservable shareholders' wealth
- distorsions from Bank Size.

President's Unlimited Liability (UL)

Excess amount to lose in the event of failure

$pCEO_{deposit} = pCEO \text{ x } (\text{Deposits - Cash})$

lower CR

Bank Risk Management (PRE-93)

- Liquidity Risk
  - Cash-to-Asset ratio
  - Cash + interbank deposits
- Solvency Risk
  - Equity-to-Asset ratio
  - Paid-in + Surplus
- Credit Risk
  - Unsecured loan ratio ✓
  - 4 categories:
    - Loans on real estate
    - Loans on stocks & bond
    - Loans on other securities
    - Personal Loans (unsecured)

Post Panic Outcome

P(Bank Run)

Increases with LR & CR

P(Bank Suspension)

Increases with SR & CR

P(Bank Failure)

Increases with SR & LR

Bank Risk Management POST-93

- UL&LL lead to higher expost E/A and late recovery in liquidity
- Probit IV:
  UL reduces CR and P(RUN)
  Both reduce SR and P(Fail)

Results (depend on outcomes)

- **Disparate Effects** of ownership and risk mangement
- Runs are tied to CR, Failures to SR
- When is **UL** $\neq$ **LL**? Safer pre93 portfolios (Tables 6 & 9)
- President ownership reduced SR and LR post93 (Tables 7 & 8)

Comment 1: UL and Recovery Value

Key part of the contribution $\rightarrow$ and especially interesting!

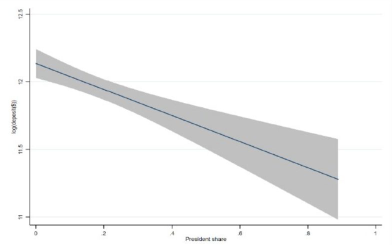
$$pP_{deposits} = pP \times [Deposits - Cash]$$

1. Variation on shareholder wealth may also create distortions
2. Cash as lower bound ignores heterogeneity on recovery value
   - Allow to infer the ultimate liability the president is facing
   - Related to loan portfolio composition and differs across banks
3. What is this measure really capturing?
   - Consider $pP \times Deposits$ is constant and $\rho(Cash, CR) = +$
   - Banks choose: [Low Cash & Risk] or [High Cash & Risk]
     - Risk is defined by share of unsecured holdings
   - Result is mechanical capturing that banks with Low/High strategies in t, remain doing so in t+1
   - Alternative interpretation: Banks with pre-exposure to unsecured lending were more severly shocked by 1893 Panic
   - Related to bank risk management but not necesarilly a consequence of presidential "UL"

Comment 1: Is this plausible?

- "Banks with low equity holdings and high cash reserves (...) were more likely to **fail**."
- "(...) the **quality of their loan portfolios was worse** relative to their peers with low cash reserves."
- Suggestions:
  1. Estimations on recovery values based on actual failures
  2. Alternative measures of risk (e.g., stock volatility, ROA range, portfolio concentration, real estate vs. other loans)
  3. Sample split by size with presidential holdings share
  4. Matching banks with similar recovery values but $\neq pP$

(b) Presidential share and deposits



Comment 2: California and incentives

Across states, California puts the greatest liability exposure on managers **but** was hit the hardest by the 1893 Panic.

- "California state banks faced heightened vulnerability in the event of bank failures relative to their peers in other states."
- "In addition, the California banking law required bank presidents to retain bank stocks to ensure accountability in case of bank failure."
- "California experienced more bank failures than any other state except Kansas during the Panic of 1893."

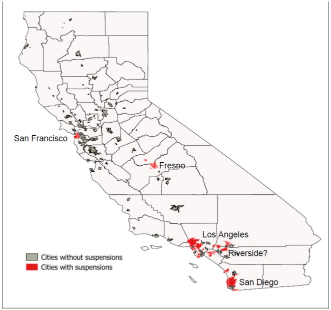
How we reconcile the idea that pro-conservative incentives work within state but not across states?

- Not necessarilly contradictory (e.g., stronger shock for idyosincratic reasons). But should be adressed.

Comment 3: California and 1893 Panic

1. Real Sector Slowdown and railroad companies failure
2. Declining stock markets

"(...) precipitated the failure of a few large banks and triggered a system wide run". Any features of the episode to exploit?



- Loans backed by financial securities vs RE
- Geo-differences: agricultural vs. railroad loan exposures

Comment 4: Leaving Money on the Table?

Rich data on shareholders' ownership: Other directions?

1. Cross ownership on Bank contagion and Suspensions
2. What happens when other agents with significant influence on corporate policy have (or not) aligned interests?
3. Is there information on liquidity reserves based on interbank deposits?
4. Role of national banks in disciplining state banks risk taking?

Concluions

- Interesting setting and Research Question
- Rich data
- Issues with identification and interpretation
- Could benefit from focusing empirical analysis