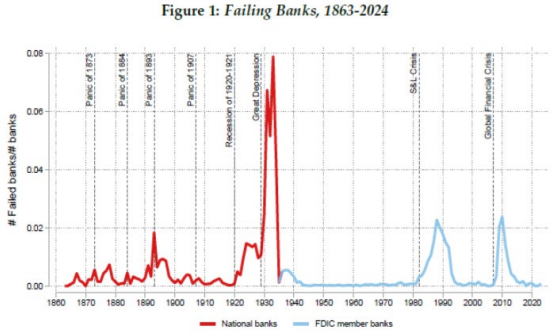
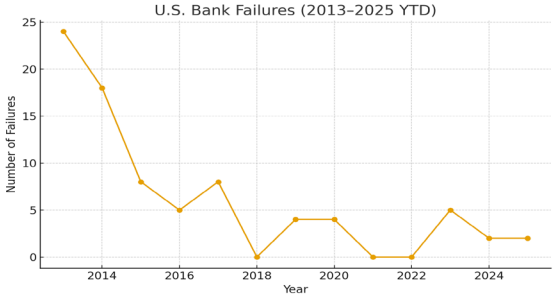
Three Great Studies About the Costs of Bank Failures.

- Do bank failures (strict supervision) have real effects?
  - Research over the past 40 years documents that bank failures are ***"associated"*** with adverse real economic effects such as reductions in economic output, employment, growth in credit, etc. These papers provide novel evidence whether failures cause economic damage.
  - The causation challenge: Do bank failures ***cause*** declines in real economic activity or do they simply reflect the adverse economic shocks and past poor lending decisions?
  - Establishing a causal link is important when thinking about optimal bank closure policies.

The Real Effects of Bank Failures

- Background:
  - Bank failures are a recurrent feature: 13% of banks in existence 1935-2023 failed at some point
  - Bank failures increase dramatically during and shortly after financial crises





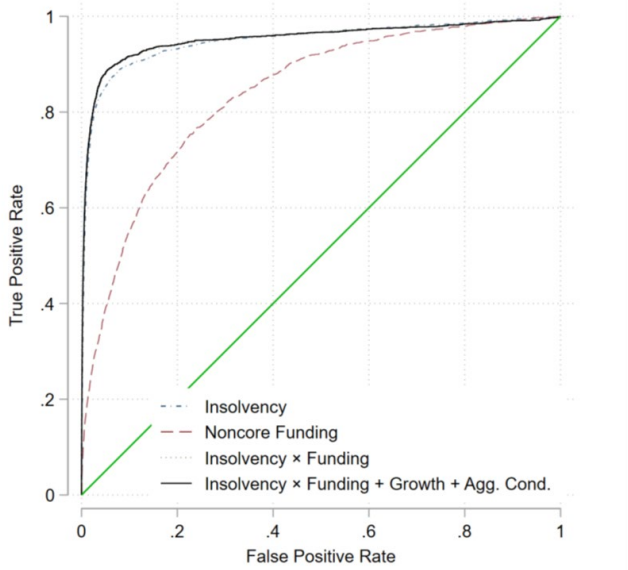
Why Do Banks Fail?

- Bank runs? Depositors withdraw funds from otherwise solvent banks Value destruction comes from ***fire sales*** of illiquid assets and lost access to credit. Runs cause damage to financial infrastructure that can have long lasting effects (Bernanke 1983). Concerns with runs are the main reason for deposit insurance and supervisory oversight.
- Solvency? Poor fundamentals such as credit risk, interest rate risk and fraud. While failed banks may be insolvent, insolvent banks may not experience runs due to insurance and a government safety net. Thus, supervisory intervention is needed.

Empirical Evidence on Why Banks Failure

- Correia, Luck and Verner (2024): "…our evidence suggests that the primary cause of bank failures is almost always and everywhere a deterioration of bank solvency"
- Modern era failures are preceded by rapid asset growth (boom and bust) , increased reliance on "non" core funding and poor earnings growth. So, failures are highly predictable, one to three years out.

Do Financial Predict Bank Failures?



Why Worry About Bank Failures?

- If failed banks abandon caution in the mist of booms (low interest rates) maybe bank failures aren't such a bad thing.
- However,
  - Even failed banks have some good customers and relationships influence access to credit for small business.
  - Even in the absence of runs, failures (and stricter supervision) may have spill over effects that adversely affect neighboring solvent banks.
  - **But**, even if some good customers suffer and there are spill over effects, poor fundaments makes estimating the social costs of closing banks difficult: misallocation (zombies) versus lost banking relation.

Supervising Failed Banks”
What Role Do Bank Supervisors Play In Bank Failures?

- Two Parts of the Paper
  - Part 1:
    - What actions do supervisors take in response to the poor financial performance?
  - Part 2:
    - Does Increased supervisory scrutiny hasten bank failures, and if so, what’s the cost?
    - Does greater supervisory scrutiny reduce credit and slow economic growth?

Does Stricter Supervision Matter?

- Very clever identification strategy:
  - On site exams for some banks rotate between federal and state examiners. The “Feds” tend to be tougher.
  - Rotation implied random examiner assignment at the start of the GFC.
  - Exogenous assignment of “Feds” is associated with stricter supervision for otherwise identical banks.

Key findings: Stricter Supervision Causes Faster Closures

Table 9: *Failure, Speed of Failure, and Costs for the FDIC Insurance Fund.*

Dependent variable	Probability of failure		Speed of failure (days)		DIF costs/assets	
	OLS	2SLS	OLS	2SLS	OLS	2SLS
	(1)	(2)	(3)	(4)	(5)	(6)
High supervisory strictness	0.025***	0.032***	-279.3***	-432.4**	-0.049*	-0.092*
	(0.0045)	(0.0066)	(103.0)	(186.2)	(0.029)	(0.049)
Observations	3610	3610	116	116	116	116
Mean dep. var	0.034	0.034	962.1	962.1	0.22	0.22
R^2	0.12	0.053	0.34	0.15	0.52	0.15
State FE	✓	✓	✓	✓	✓	✓
Baseline Controls	✓	✓	✓	✓	✓	✓
First-stage F-stat		6615.1		16.3		16.3

Stricter Supervision: Short- and Long-Term Effects

Table 11: *Supervisory Strictness, Lending, and Bank Branches and Employment*

Panel A: Growth from 2008q2 to 2013q4

Dependent variable	ΔLoans	Δ RE loans	Δ C&I loans	Δ CRE loans	Δ Branches	Δ Employees
Period	2008q2-2013q4					
	(1)	(2)	(3)	(4)	(5)	(6)
High supervisory strictness	-0.058***	-0.046**	-0.065**	-0.068**	-0.031***	-0.021**
	(0.019)	(0.022)	(0.031)	(0.030)	(0.010)	(0.010)
Observations	3099	3087	3074	3061	3034	2960
Mean dep. var	0.14	0.18	0.027	0.11	0.060	0.050
R^2	0.041	0.032	0.023	0.030	0.012	0.022
State FE	✓	✓	✓	✓	✓	✓
Baseline Controls	✓	✓	✓	✓	✓	✓
First-stage F-stat	6009.6	5949.0	6077.7	5862.1	5981.5	6104.9

Panel B: Growth from 2008q2 to 2018q4

Dependent variable	ΔLoans	Δ RE loans	Δ C&I loans	Δ CRE loans	Δ Branches	Δ Employees
Period	2008q2-2018q4					
	(1)	(2)	(3)	(4)	(5)	(6)
High supervisory strictness	-0.0046	0.0078	0.0017	-0.035	-0.034*	-0.0058
	(0.030)	(0.032)	(0.041)	(0.044)	(0.020)	(0.022)
Observations	2562	2550	2539	2526	2562	2560
Mean dep. var	0.49	0.55	0.37	0.51	0.17	0.17
R^2	0.039	0.017	0.020	0.016	0.010	0.0090
State FE	✓	✓	✓	✓	✓	✓
Baseline Controls	✓	✓	✓	✓	✓	✓
First-stage F-stat	5838.9	5806.7	5833.6	5702.7	5838.9	5860.7

Comments

- Findings pertain GFC supervision of smaller banks… a period when un-booked losses were a major problem.
- It isn't clear what the welfare costs are of reduced lending and deposit growth under stricter supervision:
  - Evergreening/ Gambling on resurrection?
  - Lower earnings may imply faster operational adjustments to a low- rate environment.

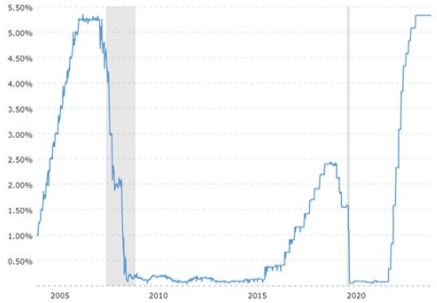
"When Banks Fail: Depositor Attention and Cost of Funding for Survivor's

- Contribution: Identifying an additional channel through which bank failures impact the local economy.
- Main Findings:
  - Following a failure, CD rates offered increase and deposit growth slows at neighboring banks. Combined, this suggests a decrease in the demand for deposits.
  - Small business lending and mortgage lending decline at neighboring banks ***but*** nonbank lending increases, consistent with a local supply effect.
  - The mechanism: depositor attention not solvency concerns.

What Wakes Up Depositors?

- Most of the failures in sample occurred in the aftermath of the GFC. The aftermath of the GFC was characterized by persistent low interest rates.

Federal Funds Rates 2004-2024



  - Low interest rates reduce deposit spreads and induce banks to close branches.
  - Failures lead to branch closures: On average acquirers close 11% of the failed banks branches.
  - What's the mechanism: Saliency or infrastructure changes?

Comments

- Focus is on large CD rates ($100K and $500K). Are these rates set locally? Rate Watch provides information on rate setting branches.
- The smaller effect of failures on $500K rates is likely the result of platform differences and/or assumption of high rate insured deposits.
- Suggestions:
  - Were failed banks paying higher rates?
  - Test whether the mechanism is branch closures and depositor migration versus salience.

Bad Banks, Bad Luck

- Do financial sector shocks bank failures have long terms adverse effects on the local economy?
- To address this question, the authors examine the relationship between the survival rate of small business borrowers and bank failures.
- Small businesses are typically “bank dependent” so are presumable most susceptible to disruptions.
- However, the FDIC failure resolution process is designed to mitigate disruptions by transferring failed bank (mostly performing) assets to healthy banks.

Contributions

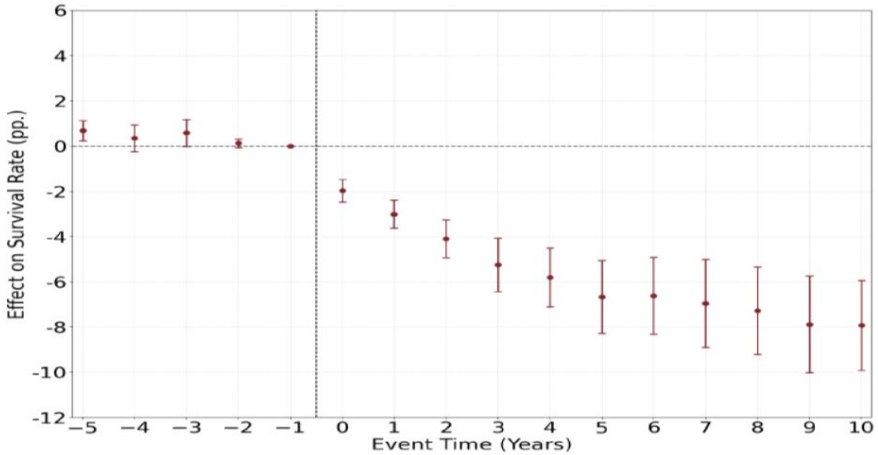
- Creation of an *amazing* and *unique* database of small business lending:
  - UCC lien filings to identify borrower and their lenders
  - Link to Dunn and Bradstreet for survival and employment growth data.
  - Link to FDIC bank failure data to conduct a staggered diff in diff analysis of survival rates.

Contributions:

- Novel evidence of a large and surprisingly **persistent** real effects of shocks to banking relationships among small firms.
  - Complements previous studies of the effects of financial shocks/bank failures real outcomes such as employment and investment (See for example Bernanke (1983), Chadorow-Reich (2014)
  - Survival rates are significantly lower for failed bank borrowers.
  - Employment growth is lower.
  - Considerable heterogeneity across failed banks, industries and local banking markets (branch availability).
  - The effect of bank failures are surprisingly persistent (up to 5 years years)

Key Take Aways: 1. Large and Persistent Adverse Effects of Bank Failures on Firm Survival

Figure 2: Effect of Bank Failure on Firm-Level Survival Rates



Compared to similar businesses with loans from healthy banks, failed bank borrowers have significantly lower survival rates, slower employment growth, and the impact persists of failures persist for *5 to 10 (?) years*.

Reverse Causality Concerns

- If ruptured relationships cause lower survival rates, why are the effects so persistent?
  - Many small business loans are credit facilities with maturities of <1 year.
  - For longer term loans, why would an acquirer not renew a loan that has been performing for years?
  - From the first paper we learn that there are a lot of un-booked losses on the books of failed banks which suggests bad borrowers match with bad banks.

Reverse Causality Concerns

- Material loss reviews: “Our review of these sections indicates that not a single one of the 120 material loss reviews cite corporate loans as the reason for the bank’s failure”.
- All the reviews cite weak controls, weak risk management and a culture of risk taking as the causes of failure.
  - Example:
    - Colonial Bank Failure 2009:

      Colonial failed due to a liquidity crisis brought on by (1) bank management’s failure to implement adequate risk management practices pertaining to its significant concentrations in ADC loans and investments in higher-risk, mortgage-backed securities; (2) deficiencies in loan underwriting, credit administration, and risk analysis and recognition; and (3) an alleged fraud affecting its MWL operation. In the years preceding the bank’s failure, the OCC, the FDIC, and the ASBD each expressed concern about Colonial’s risk management practices and made recommendations for improvement. However, the actions taken by Colonial’s Board and management to address these concerns and recommendations were not timely or adequate.

Corporate Culture and Funding Growth are Important Determinants of Bank Risk Taking

- Corporate culture and risk taking: Fahlenbrach, Prilmeier, and Stulz “This time is the same: Using bank performance in 1998 to explain bank performance during the recent financial crisis” JF 2012
- Boom and Bust in Small Business Lending: Granja, Leuz and Rajan (2020): During boom periods small banks lent to small firms at greater distances. More distant loans default more often, indicating greater credit risk.
- Distant lending was more pronounced among:
  - Banks whose branches were in primarily high deposit growth markets. Funding growth burns a hole in management’s pocket.
  - Among banks that are likely to suffer from managerial “short termism” (for example, banks that put low weight of risk management (Ellul and Yerramilli, JF 2013)).

A Suggestion on How to Address the Selection Issue

- Use distance as a proxy for ex-ante risk taking (selection) examine the relation average borrowing distance and bank failure in event time.
- Also, look at whether the mechanism behind variation in survival rates is nearby bank closures.

Summary

- Great set of papers. All present evidence of negative externalities associated with bank failures.
- What's needed: Evidence on the trade-offs… Do zombies cause more harm than prompt corrective action