The Effect of Bank Supervision on Risk Taking: Evidence from a Natural Experiment

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Question

- What is the causal effect of bank supervision on risk taking?

$$\text{Risk}_{it} = \alpha + \beta \text{Supervision}_{it} + \varepsilon_{it}$$

- Risk measurement can also be challenging
  - Ex-ante risk to the deposit insurance fund can result from:
    - Liabilities: higher leverage
    - Assets: riskier loans
  - Ex-post measure bank resolutions (failures) and their costs
- Identification challenges
  - Riskier banks may be supervised more
  - Adverse economic conditions could simultaneously increase risk and reduce supervision

Approach

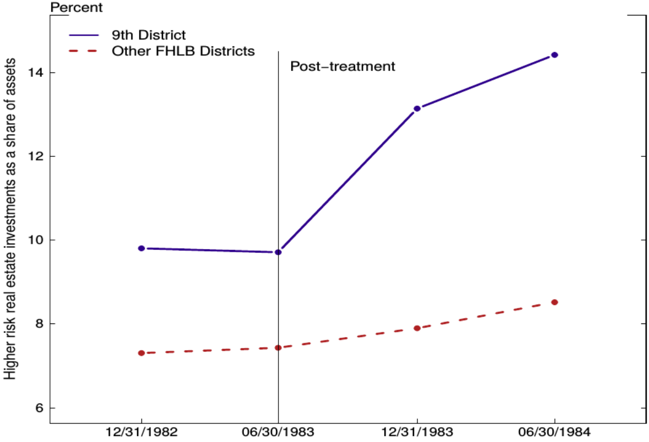
- Measure bank risk
  - Ex-ante: higher real estate investments as share of assets
  - Ex-post: bank resolutions (failures) and measure their costs
- 1983 natural experiment where supervision is effectively turned off for S&Ls in a single district of the main S&L regulator
  - DiD design comparing treated S&Ls to S&Ls in other districts

$$\text{Risky loans share}_{it} = \alpha_i + \alpha_t + \beta \text{Post}_t \times \text{Treatment}_i + \varepsilon_{it}$$

  - Identifying assumption: if 9th district did not relocate, bank risk for 9th district S&Ls and in other districts would have changed the same

Main Finding

Risky real estate investments by 9th district S&Ls relative to S&Ls in other districts



- Quite convincing
- Other comparisons and breakdowns in paper help a lot

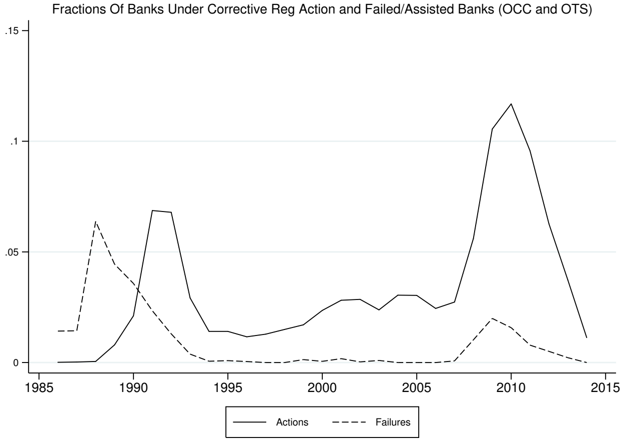
Related literature

- Empirical financial regulation is becoming better identified
  - Same regulation is interpreted or enforced inconsistently by different regulators (Agrawal-Lucca-Seru-Trebbi 2014 QJE)
  - User fee-funded regulators are more lenient with higher fee paying banks (Kisin-Manela 2014)
  - Rezende and Wu (2014) exploit an examination frequency discontinuity and find that more examinations reduce loan losses and delinquencies
  - Higher intensity supervision at "top-5" banks makes their assets safer but does not harm their performance (Hirtle-Kovner-Plosser 2016)
  - Following closure of a regulator's field offices, the banks they previously supervised distribute cash, increase leverage, and increase their risk of failure, more than similar banks in the same time and place (Gopalan-Kalda-Manela 2016)
- Current paper
  - Suggests a novel natural experiment for supervision effect
  - Shows supervisors curb risky real estate investments

Quibble 1: Time-varying economic conditions

- Treated areas are fairly large and could be subject to other shocks that have nothing to do with S&L supervision
  - Paper looks at commercial banks in same district as placebo
  - Gopalan-Kalda-Manela (2016) study national commercial banks and use state-chartered banks as control
  - State-chartered S&Ls would be a better control here
  - Comparing banks within the same MSA would be even more convincing

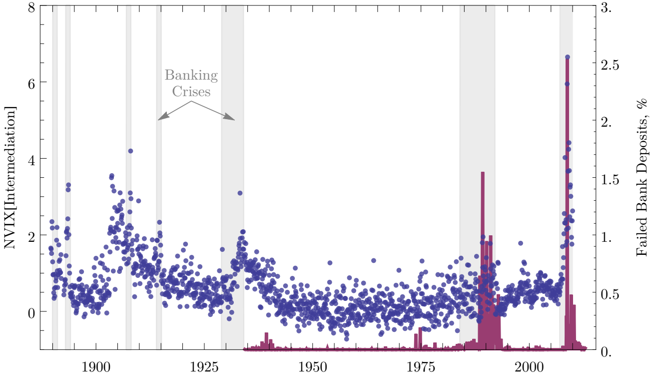
Quibble 2: Ex-post consequences of risk-taking



Source: Kisin-Manela (2014)

- Results on failures do not use DiD design
- Enforcement actions are another ex-post risk measure

Quibble 3: Estimating the effects of supervision mid-crisis



Source: Manela-Moreira (2017 JFE)

- Are the effects documented here more about curbing risk-shifting by managers staring into the abyss?
  - Estimate in separate subsamples of pre-treatment riskiness

My Take

- Convincing evidence that bank supervision curbs risk-taking
- Suggestions
  - Look at smaller geographical regions near district borders
  - More ex-post measures of risk like enforcement actions
  - Crisis vs normal times

Appendix / Minor Comments

- Gormley and Matsa argue against using endogenous variables as controls and suggest that fixed effects be used to control for unobserved heterogeneity
  - I understand however that your other reviewers may ask for these additional tests, so it's good that you show both