

## Topic 5 Finance and Growth

(Friday morning, first session)

Reading: Demirgüç-Kunt, "Finance and Economic Development: The Role of Government," in A. Berger, P. Molyneux, and J. Wilson (eds.) *The Oxford Handbook of Banking* (forthcoming).

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## Typical Approach

$$Y_{it} = \alpha + \beta X_{i,t-1} + \gamma(\text{INDICATOR}_{i,t-1}) + \tilde{\varepsilon}_{it}$$

Interpret " $\gamma$ " literally

No omitted variables correlated with financial "INDICATOR"?

No reforms in anticipation of poor outcome ( $Y_{it}$ )?

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## Many Answers

E.g. Demirgüç-Kunt and Detragiache on stability and deposit insurance.

International comparisons

- omitted variables
- endogeneity of regulatory changes

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## Bernanke (AER 1983)

“Cost of Credit Intermediation”

Hypothesized that bank failures raised CCI by causing soft information to be lost.

Estimates macro model (VAR)

Bank failures tend to lower GDP

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## Strahan (and co-authors)

“Bank deregulation as an empirical laboratory”

U.S. banking structure (background)

- Banks vs. BHC
- Branching a state-level decision
- 1978: first state permitted out-of-state BHC to acquire its banks
- Need to dispose of failed thrifts weakened intra-state controls
- Regional compacts for BHC acquisitions
- Increased bank branching; nationwide by 1997

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Strahan looks at various “indicators”

- Pre- and post-branching deregulation
- Pre- and post-interstate acquisition deregulation.

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**Panel Regression of State Growth in Real Per Capita Income on Banking Deregulation and Employment Share Variables**

	Dependent variable: growth in real per capita state income			
	0.0056*	0.0051*	0.0068*	0.0066*
	(0.0024)	(0.0028)	(0.0025)	(0.0025)
Post-branching				
Indicator for 5+ years after branching	—	-0.0029 (0.0025)	—	0.0007 (0.0025)
Indicator for 5 years leading up to branching	—	-0.0016 (0.0026)	—	-0.0001 (0.0027)
Post-interstate banking	0.0048 (0.0031)	0.0049 (0.0031)	0.0015 (0.0033)	0.0014 (0.0033)
Share of employment in mining	—	—	0.40* (0.13)	0.40* (0.13)
Share of employment in construction	—	—	0.40* (0.10)	0.40* (0.10)
Share of employment in manufacturing	—	—	0.33* (0.10)	0.33* (0.10)
Share of employment in transportation	—	—	0.63 (0.29)	0.63* (0.29)
Share of employment in trade	—	—	0.04 (0.15)	0.04 (0.15)
Share of employment in finance	—	—	-0.10* (0.29)	-0.10* (0.29)
Share of employment in services	—	—	0.15 (0.12)	0.14 (0.12)
N	949	949	890	890
Within R <sup>2</sup>	0.5016	0.5025	0.5485	0.5486

NOTE: Standard errors in parentheses. These regressions are estimated using a fixed-effects model with both year and state effects. The year of deregulation is dropped. Also, South Dakota and Delaware are dropped. \*Statistically significant at the 10 percent level.

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**Dependent variable: growth in real per capita state income**

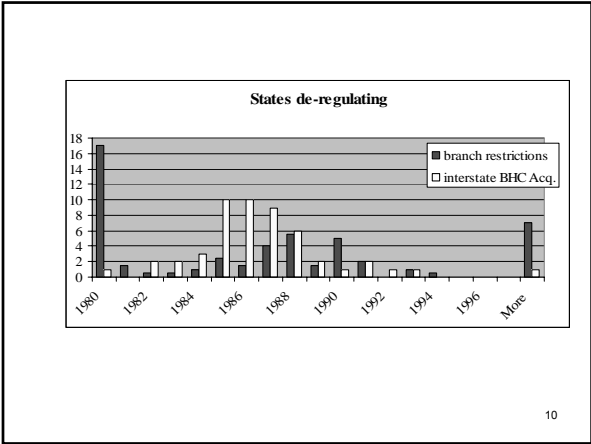
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**Log of new incorporations per capita      Growth of new incorporations per capita**

Post-branching	0.0279 (0.0186)	0.0981* (0.0175)	0.0312* (0.0128)	0.0390* (0.0138)
Post-interstate banking	0.1169* (0.0243)	0.0572* (0.0229)	-0.0057 (0.0164)	-0.0133 (0.0178)
Share of employment in mining	—	6.30* -- --	—	0.75 -- --

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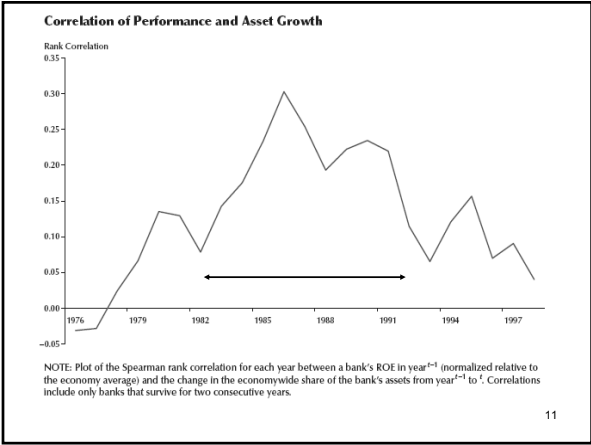
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### An Implication of “Finance and Growth”

Lending Channel: The real effects of bank lending vary with monetary policy.

Bernanke (AER 1983) first suggested a “lending channel.”

- Var model of growth rates during Great Depression
- Added the dollar value of failed banks (and lags).

Bank failures seemed per se to reduce GDP growth.

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### Lending Channel (continued)

Stein (1998) logically succeeds Bernanke (1983).  
Interprets monetary policy effects in terms of insured  
vs. uninsured funds available to banks.

Billett et al. (JFE 1998) adds plausibility to Stein's  
mechanism.

Empirical challenge: What declines? loan  
demand or supply?

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### Summary

- The jury is still out.
- Room for further research

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