

Discussion “Tracing out Capital Flows: How
Financially Integrated Banks respond to Natural
Disasters” by Romero Cortés and Strahan
Discussant: Andres Liberman (NYU)

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Summary of the paper

- ▶ Bank operates in more than one county, e.g. A and B
- ▶ County A is exposed to a disaster (e.g., hurricane , earthquake)
- ▶ Bank increases lending (new home purchase mortgages) in county A
- ▶ Bank decreases lending in county B, but total lending to both counties increases
- ▶ Results present only for small banks

Comments

- ▶ Interesting paper: made me think about bank internal capital markets and constraints in the supply of funds
 - ▶ Nice setting to complement Gilje, Loutskina, Strahan (2015)
- ▶ However, current version lacks underlying theme to unify a set of results

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 - ▶ Nice setting to complement Gilje, Loutskina, Strahan (2015)
- ▶ However, current version lacks underlying theme to unify a set of results
- ▶ What do we learn?
- ▶ Some comments on empirical implementation

A simple framework

- ▶ Bank can raise funds at a rate R ; operates in two counties (assume exogenous): 1 and 2
- ▶ Bank lends L_i in county i and generates a return of $\rho_i(L_i)$, $\rho'_i \leq 0$
- ▶ Bank lends until marginal profitability in each county is equal $\rho'_1(L_1) = \rho'_2(L_2) \leq R$ (and equal to R if total lending is unconstrained)
- ▶ Lending can increase only if marginal profitability increases or R increases

New lending following a disaster

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- ▶ U.S Department of Housing and Urban Development (<http://portal.hud.gov>) Section 203(h) "*Mortgage Insurance for Disaster Victims Section 203(h)*"
- ▶ Purpose: "...*the Federal Government helps victims in Presidentially designated disaster areas recover by making it easier for them to get mortgages and become homeowners or re-establish themselves as homeowners.*"
- ▶ "...*This program provides mortgage insurance to protect lenders against the risk of default on mortgages to qualified disaster victims.*"
- ▶ Eligibility: (i) live in a disaster area and (ii) home was destroyed or damaged to an extent that replacement is necessary

HUD 203 (h) characteristics

- ▶ No downpayment (100% financing!)
- ▶ *"...To make sure that its programs serve low and moderate income people, FHA sets limits on the dollar value of the mortgage. These figures vary over time and by place, depending on the cost of living and other factors (higher limits also exist for two to four family properties)."*
 - ▶ ID strategy?
- ▶ Moreover, *"...The government programs let renters apply for 203(h) loans to buy damaged houses."* (Orlando Sentinel, 08/14/05)
- ▶ Authors also highlight role of FDIC *"... has announced a series of steps intended to provide regulatory relief to financial institutions and facilitate recovery in areas of Colorado affected by severe storms..."*

What is the channel?

- ▶ If this is the channel, it seems as though disaster increases ρ'_1 (the disaster county) through regulation
- ▶ Is this the channel? How big is this effect (other than Katrina-type disasters)? Is it temporary: do you see a reversal? Can this be tested?
 - ▶ Can authors check for FHA insurance and LTV in new mortgage origination?

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 - ▶ Can authors check for FHA insurance and LTV in new mortgage origination?
- ▶ But for lending in other areas to decrease, banks must be constrained ex post, i.e. $L_1 + L_2 \leq \bar{L}$ after the shock
- ▶ What is the constraint? Capital requirements? Securitization? (consistent with heterogeneity by size)
 - ▶ Is this what we learn (small banks are financially constrained)?
- ▶ Other results (heterogeneity by GSE/non-GSE funding, core/non-core markets, and deposit rates R) may help tie down interpretation

Empirical strategy

- ▶ For 12 months following a disaster authors calculate sum of the \$ amount of new mortgages made by each bank in all of its disaster-affected counties, divided by the number of non-affected counties in which bank operates
- ▶ Endogenous (reverse causality): banks choice of how much to lend following disaster could be driven by demand for loans in non-exposed counties
- ▶ Solution: instrument increased demand in affected counties using county-level bank's exposure (market share) times property losses, $property\ exposure_{i,t}$

Empirical strategy (2)

- ▶ Reduced form:

$$\Delta lending_{i,j,t} = \sum \beta^k \textit{property exposure}_{i,t-k} + f(i,j,t) + \epsilon_{i,j,t}$$

Questions not clear in current version

- ▶ Why the lags of the dependent variable? RHS variable should (almost) not vary in a year (is this true)
 - ▶ In particular, why not regress 12 month change in lending on *property exposure*_{*i,t*} at the time of disaster?
 - ▶ Gilje, Loutskina, Strahan (2015) also seems more intuitive
- ▶ Current version of paper is not clear as to whether instrument is correlated with future lending (if true, interesting result!)
- ▶ More importantly, exclusion restriction: does exposure to property loss in shocked counties affect lending in non-shocked counties only through increased lending in shocked counties?
 - ▶ Perhaps, but what about increased defaults? what about reduced deposits? Discussion would probably make paper stronger

Conclusion

- ▶ Interesting paper
- ▶ I think would benefit from a clearer discussion of the contribution/mechanism: what do we learn?
- ▶ Empirical strategy: IV needs a little bit more work to convince reader

Thanks

Thank you!

Other comments

- ▶ Not sure why the relevant test is to compare total lending in disaster counties to long-run average. Can you do a pre-post disaster event-study type of analysis? Better to test wrt long run average trend?
- ▶ In page 14, why divide outcome and indep variable by total lending? Why do you care about heteroskedasticity?
- ▶ Mean monthly growth rate for all small banks is 3.6% (large), but eliminating single market banks it drops down to 0.2%. Why report the “no single markets” sample number, but then report regression results with the total sample?