Discussion:
Are there unintended consequences of capital support and regulatory intervention?

Does this work?

Questions Addressed

- What impact, if any, did TARP's Capital Purchase Program have on the loan supply and bank risk taking?
- Program goal:

> "The Treasury established the CPP in October 2008 to stabilize and strengthen the U.S. financial system by increasing the capital base of an array of healthy, viable institutions, enabling them to lend to consumers and businesses. Purchasing equity in healthy banks around the country is the fastest most direct and effective method to inject much needed capital into the system…Banks will have the capability and incentive to increase their lending above the level that they would have lent without additional capital."
>
> CPP factsheet.htm

- Did it work?

Questions Addressed

- More generally, how does regulatory intervention and capital support affect risk taking and liquidity provision?

Empirical Finds

- Concerning TARP:
  - No evidence that TARP funding is associated with an increase in bank lending. Diff in Diff evidence suggests:
    - TARP recipients rejected more residential loan applicants
    - Commercial lending of TARP recipients did not increase
  - Risk taking at TARP banks increased
    - Riskier mortgage loans
    - Riskier investment portfolios
    - Riskier commercial loans based on risk rating (large banks)
    - Increase in earnings volatility.

Empirical Finds

- Evidence from German panel data
  - Overall, no evidence that capital support leads to an *economically* significant change in risk taking (particularly during crisis periods).
  - Regulatory intervention and capital are associated with reductions in liquidity creation and risk taking at larger less well capitalized institutions during non-crisis period.

Reconciling these findings

- The puzzle: Why should an increase in capital lead to a decrease in lending and an increase in risk taking?
  - Prior empirical work suggests *reductions* in capital are associated with *reductions* in lending.
  - Theoretically, banks might react to higher capital requirements by increasing asset risk ***but*** except for the top 20 banks TARP participation was ***voluntary.***
  - Moreover, acceptance of TARP imposed restrictions on management incentive compensation.
  - Moral Hazard?
    - Ex ante sure but ex post linkage to *voluntary* capital infusions is unclear.
    - Shifting risk **does** impact required capital
    - Selection: It's not the capital, it's the certification associated with being accepted in the program.

Empirical issues: TARP studies

- Since CPP funds were not randomly assigned and reflect, in part, an endogenous application process.
  - Does the response of the top 20 differ from the pool of voluntary applicants? Li (2009) finds an increase in loan growth among ***voluntary*** TARP recipients.
  - The Challenge: Find a set of instruments that are correlated with *applying* for funding and being *accepted* for funding but uncorrelated with loan demand or anticipated capital needs.
  - Duchin and Sosyura use proxies for CAMEL factors and political and regulatory instruments to identify supply effects
    - CAMEL proxies do not capture examiner assessments
    - Barney Frank proxies:
      - FIRE political contributions
      - House subcommittee finance subcommittee membership
      - Party affiliation
- Instruments used to identify supply factors may also be related to risk taking ex post and ex ante.

Some Issues to Address

- Possible explanations/suggestions
  - Liquidity demand: TARP recipients were larger, less well capitalized and less dependent on insured deposit financing than non-recipients and less Does the impact of TARP vary with capital and liquidity… include interactive effects?
  - Is TARP participation related to future charge offs or losses?
    - TARP participants capital declined
    - Risk rating changes, how much of it has to do with adding 5's?
  - Commitments? TARP recipients lend significantly more through commitments. Note that the increase in C&I spreads suggests more *selective* spot lending.
  - Look at loans retained and the risk weighted volume of lending.
  - Use foreign banks as controls.

Evidence from Germany

- Capital support or is it the Crisis?
  - Neat result: that intervention and capital support matter most during ***non-crisis years***
- Can liquidity be created without increasing risk?
  - How does intervention affect liquidity creation… is it reductions in lending or reductions in deposit creation?
  - Is the decline in liquidity creation just a reflection of regulatory pressure to reduce risk?
- Does private intervention differ from public intervention?
- Should the definition of liquidity vary with credit market conditions… real estate and car loans may have been liquid in 2005 but not in 2008.