Discussion of "Banking Condition and the Effects of Monetary Policy: Evidence from U.S. States" by Skander J. Van den Heuvel

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Background

- Little consensus about the role of the supply of bank loans in economic fluctuations.
- Banking sector can serve as a propagation mechanism for, or a source of, macroeconomic shocks:
  - "Bank lending channel": Existence of bank-dependent firms gives monetary policy a channel through supply of bank loans

    Bernanke & Blinder (1988); Kashyap & Stein (1994,2000); Peek & Rosengren (2000); Driscoll (2004); Ashcraft (2007)
  - "Bank capital channel": Effects of monetary policy through banking system affected by bank conditions

    Van den Heuvel (2001, 2011); Hubbard, Kuttner, and Palia (2002); Kishan and Opiela (2000, 2006); Kandrac (2010)

- - "Capital crunch": Exogenous changes in bank capital affect bank lending, real activity

    Peek and Rosengren (1995)
  - "Financial accelerator": Shocks (including monetary policy) can have create feedback effects on firms' ability to borrow, investment.

    Kiyotaki & Moore (1997); Bernanke, Gertler & Gilchrist (1999); Hall (2010)
- Lack of consensus reflects difficult identification problems:
  - Shocks that affect the supply of bank loans likely have independent effects on the real economy, and
  - Even shocks that originate in the banking sector may reflect disturbances that have a separate effect on economic activity.

This Paper

- Uses a panel of state-level data to evaluate bank capital channel.
- Finds that effects of monetary policy larger in states whose banks have a low capital-asset ratio.
- By contrast, finds bank liquidity measures don't affect potency of monetary policy:
  - Implies that bank lending channel isn't operational.

Overall Comments

- Paper nicely uses U.S. states as a lab for testing for this channel.
- Execution is careful.
- But test of capital channel is indirect.
- And additional robustness tests would be desirable.
- How does this fit in with the rest of the literature?

Outline of Discussion

- What the Paper Does
- Comments and Extensions
- Reconciling the Literature
    - State-level Data and Macroeconomics

Theory and Identification Strategy

- Bank capital channel:
  - Lending sensitive to level of equity capital
  - Banks transform maturity: funding short-term, lending long-term
    - Monetary tightenings thus reduce profits and capital
    - In turn, this reduction leads to less lending
    - Effect is more pronounced for banks with low levels of capital.
- Bank lending channel may also be stronger in banks with lower capital levels
  - However, this channel, unlike the capital channel, is stronger for banks with lower levels of liquidity.
- Hence: Test potency of monetary policy for banks with different levels of capital and liquidity
  - If effects found for both capital and liquidity, both channels may be present
  - If effects for just capital, likely the capital channel.

Theory and Identification Strategy (cont.)

- Key idea: monetary policy is national, but banks in different states have different levels of capital and liquidity.
- Thus, do a panel regression of a state-level real activity measure on:
  - A monetary policy shock
  - That shock interacted with capital
  - That shock interacted with liquidity.

Data

- Real activity: state personal income (annual).
- Capital, liquidity ratios: Commercial banks, from FDIC.
- Monetary Policy Indicator: Bernanke and Mihov (1998), federal funds rate.

Results

- Capital does have an effect on potency of monetary policy
  - One-σ shock in monetary policy indicator leads to a decline of about 0.5-2.5 percent in state income growth, depending on measure used.
- No evidence that liquidity matters.

Comments

- States potentially provide a good setting for testing this effect
  - Monetary policy common, bank conditions vary
  - Other unobservables also likely correlated.
- Paper is carefully executed:
  - For example, recognition that fixed effects aren't quite right
    - Care about whether capital above average affects potency of monetary policy, not whether interaction between capital and monetary policy is above average.
- Claims are modestly stated.

However

- Test of channel is indirect in several ways:
  - No test of all links from monetary policy to bank lending to real activity
    - Results could be attributable to other reasons why capital differs across states
    - Political economy of banking literature–variation in bank conditions across states may not be exogenous (e.g. Kroszner and Strahan 1998).
  - Effects at state level necessary, but maybe not sufficient, for effects at national level:
    - May be some redistribution across states.

However (cont.)

- Limitations in state-level data:
  - Frequency is annual
  - Assignation of banks to states may be problematic:
    - By bank headquarters? By fraction of loans or deposits?
  - What about money center banks that lend nationally?

Extensions

- Redo estimates at census regions.
- Drop states with money-center banks.
- Try using employment or unemployment as an alternative real activity measure.
- Exploit panel data to see if results match narrative accounts:
  - For example, capital crunch in early 1990s supposedly greater in New England, Texas, other states
  - Are the fitted values consistent with that story?

Extensions (cont.)

- TARP:
  - Under bank capital channel, a side-benefit of TARP is that it should have made the impact of expansionary monetary policy greater
  - Can use results to estimate this impact.
- More generally, use estimates on older data to determine strength of capital channel during the crisis.

Reconciling the Literature

- Many different results on banking and macroeconomics.
- Is there a bank lending channel?
  - Yes: Peek and Rosengren (1995, 2000); Kashyap and Stein (1994, 2000)
  - No: Miron, Romer, and Weil (1994); Driscoll (2004); Ashcraft (2007); Van den Heuvel (2010)
- Is there a bank capital channel?
  - Yes: Van den Heuvel (2010); Kandrac (2010); Kishan and Opiela (2000, 2006)
  - No: No direct tests say no, but see below.
- Do banks have a ‘special’ role as a source of shocks or in the transmission of shocks
  - Yes: Bernanke (1983); Bernanke and Lown (1991); Bassett, Chosak, Driscoll and Zakrajsek (2010)
  - No: Oliner and Rudebusch (1998); Many papers on the financial accelerator.

Reconciling the Literature (cont.)

- Why are there differences?
  - Perhaps some papers aren't well identified?
  - Always a possibility, but hard to know which ones.
- Effects of shocks might be nonlinear?
  - Maybe only large shocks matter.
  - Again, hard to tell.
- Some effects of banking shocks are redistributional.

Heterogeneity and Redistribution

- Stories of why banks matter are largely about heterogeneity.
- Some firms, usually smaller ones, are ‘bank-dependent.’ They have fewer options for financing.
- Perhaps their reductions in investment or production are partially offset by expansions in non-bank-dependent firms.
- Same may be true for states–perhaps states with weaker banks and/or more bank-dependent firms shrink, others expand.

Heterogeneity and Redistribution (cont.)

- Macroeconomists care about redistribution if it has impact on aggregate variables
  - For example, effects of pay-as-you-go pension schemes on consumption and saving
- But there's strong precedent for caring about certain kinds of heterogeneity for other reasons:
  - For example, care about difference between 90 percent of labor force being employed and 95 percent for more than reasons of economic efficiency.
  - Similarly, may care if poorer states or smaller firms suffer or benefit relative to larger states or firms.

State-level Data and Macroeconomics

- ‘Appropriate’ unit for macroeconomic analysis is unclear.
- Better data at national level.
- But many states have large economies.
- Were you to do this analysis for countries in the Eurosystem, would certainly care about responses in smaller countries.
- State-level analysis is important for both what it says about the national economy and for its implications at the state level.

Concluding Remarks

- Paper uses state-level data to test whether the potency of monetary policy transmission through the banking system is affected by banks' capital ratios.
- Paper finds evidence for this bank capital channel, no evidence for bank lending channel.
- Tests are nicely executed and carefully done.
- But the tests are a bit indirect, and using state-level data can create its own problems.

Concluding Remarks (cont.)

- A way to reconcile some of the disparate results in the literature on banking and macroeconomics is that some of the effects are redistributional.
- However, this is likely redistribution that we care about for its own sake, and not just its effects on national-level variables.