# Monetary Stimulus and Bank Lending

by

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Discussion

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# Summary of Main Results

1. Banks that were securitizers or had relatively high MBS holdings when the Fed purchased large amounts of MBS during a quarter increased their state's share of mortgage originations during the following year.
2. These same banks reduced their growth of C&I lending (crowding out).
3. The reduction in C&I lending was greater for banks with a lower Tier 1 capital ratio.
4. Financially-constrained firms that had relationships with these affected banks cut investment.
5. The Fed's Treasury purchases did not lead to crowding out.

# Interesting and Policy-Important Implications

- Banks benefiting most from QE increased originations $130 billion more than other banks.
- These banks reduced C&I lending by $28.2 billion relative to other banks, and the cuts had real effects on borrowers.
- Fed's decision to purchase MBS (rather than, say, corporate bonds as did the ECB) affects resource allocation.
- I had two comments that might add additional insights.

# Comment 1: Testing the Channels of QE

- Fed's MBS purchases encourage lending via two channels:
  1. Capital gains (K gains) on a bank's current holdings of MBS.
  2. Origination: "To Be Announced" (TBA) MBS purchases allows banks to add mortgages after 1-3 months.

- The paper tests both with the bank-level regression:

$$\text{Mort Orig}_{Year\ t} = \beta_3 \left(\text{MBS Hldgs} \times \text{Fed MBS Purch}\right)_{Quarter\ t-\frac{1}{4}}$$

- The K gains channel would predict that MBS prices react to *unexpected* Fed MBS purchases.
  - Might Fed announcements of the start, continuation, and end of QE be used to estimate unexpected changes?
  - Alternatively, directly use MBS (index) returns in addition to (or instead of) Fed MBS purchases.

# Comment 1 (continued)

- A more precise test of the origination channel may be possible.
- While HMDA data is reported annually, it contains the date that each mortgage was originated.
- Thus, it is feasible to run the quarterly bank-level regression

  $$\text{Mort Orig}_{Quarter\ t} = \beta_3 \left(\text{MBS Hldgs} \times \text{Fed MBS Purch}\right)_{Quarter\ t-\frac{1}{4}}$$

  which quadruples the number of observations.
- A quarterly regression better fits MBS TBA purchases where mortgages are added with a 1-3 month lag.
- Similarly the K gains channel can be tested with quarterly observations.

# Comment 2: Further Analysis of Crowding Out

- It may be possible to more precisely estimate crowding out at the individual bank level.
- Higher MBS purchases crowd out if they lead to greater mortgages originated and waiting to be sold.
- Demyanyk and Loutskina (2016) (DL) is cited as estimating that temporary mortgages raise capital by 1% of assets.
  - But DL's calculation assumes the increase in originations equals 50% of bank assets and takes 90 days to sell.
  - Using HMDA data, Rosen (2010) estimates that, on average, top securitizers sell mortgages 37 days after origination.[1]

[1] Federal Reserve Bank of Chicago WP 2010-20.

# Comment 2 (continued)

- The Rosen (2010) method could estimate the average time between mortgage origination and sale for those banks that raised mortgage originations by $130 billion.
- Then the additional capital required by the greater temporary mortgage holdings (for capital-constrained banks) could be calculated to see if it justifies the crowding out of $28.2 billion in C&I lending.

# Concluding Thoughts

- The paper uncovers important effects of unconventional monetary policy.
- It may be another example of the U.S. bias toward subsidizing investments in residential real estate (at the expense of corporate investment).
- Further refinements might better estimate the allocative effects of QE.