Bank Health and Local Economic Outcomes

Simon Gilchrist\textsuperscript{1}    Michael Siemer\textsuperscript{2}    Egon Zakrajšek\textsuperscript{3}

\textsuperscript{1}New York University and NBER
\textsuperscript{2}Federal Reserve Board
\textsuperscript{3}Bank for International Settlements and CEPR

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Economic Advisory Panel

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Conditions in U.S. Credit Markets

Percentage points

Net percentage of banks reporting


Excess bond premium (left)
Change in bank credit standards (right)
Measuring Local Bank Health

- Use HMDA data to estimate bank credit supply at granular level.

- Identify component of credit supply that is due to variation in bank health:
  - Loan chargeoffs
  - Tier 1 capital

- Construct county-level measure of bank health using deposit shares to measure bank’s footprint in local market.

- IV regression of county-level economic activity on bank mortgage lending using local bank health as an instrument.
Distribution of Credit Supply Shocks
Sample period: 2007–2010
Distribution of Credit Supply Shocks

Sample period: 2011–2018
**Bank Health and Local Economic Outcomes**

IV regressions

<table>
<thead>
<tr>
<th>Regressor</th>
<th>Total mortgage originations</th>
<th>Home prices</th>
<th>Small Business Lending</th>
<th>GDP</th>
<th>Employment</th>
</tr>
</thead>
</table>

**A. Sample period: 2007–2010**

<table>
<thead>
<tr>
<th></th>
<th>(\Delta_2 \ln (\text{Bank Mortg. Orig.})_{k,t})</th>
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<th>(\Delta_2 \ln (\text{Bank Mortg. Orig.})_{k,t})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.529***</td>
<td>0.417***</td>
<td>0.798***</td>
<td>0.147***</td>
<td>0.081***</td>
</tr>
<tr>
<td></td>
<td>(0.106)</td>
<td>(0.259)</td>
<td>(0.189)</td>
<td>(0.038)</td>
<td>(0.021)</td>
</tr>
<tr>
<td>No. of counties</td>
<td>934</td>
<td>951</td>
<td>951</td>
<td>935</td>
<td>951</td>
</tr>
<tr>
<td>Observations</td>
<td>2,802</td>
<td>2,853</td>
<td>2,853</td>
<td>2,805</td>
<td>2,853</td>
</tr>
</tbody>
</table>

**B. Sample period: 2011–2018**

<table>
<thead>
<tr>
<th></th>
<th>(\Delta_2 \ln (\text{Bank Mortg. Orig.})_{k,t})</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.832***</td>
<td>0.555***</td>
<td>0.349***</td>
<td>0.112***</td>
<td>0.093***</td>
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<tr>
<td></td>
<td>(0.093)</td>
<td>(0.094)</td>
<td>(0.119)</td>
<td>(0.039)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>No. of counties</td>
<td>949</td>
<td>949</td>
<td>949</td>
<td>933</td>
<td>949</td>
</tr>
<tr>
<td>Observations</td>
<td>6,642</td>
<td>6,638</td>
<td>6,642</td>
<td>6,530</td>
<td>6,642</td>
</tr>
</tbody>
</table>

**NOTE:** All variables are in per capita terms with the exception of home prices.
Summary of Findings

- A deterioration in bank health causes a pronounced contraction in local economic activity.
  - Estimates imply bank health effects are equally important post-GFC.
  - Effects are concentrated in construction and non-tradeable sectors.
  - Effects are concentrated at small and young firms.

- Mechanisms:
  - Home prices and household spending.
  - Small business lending.

- Results robust to controlling for household demand channel:
  - Primary effect works through a contraction in lending to local businesses.
  - Supply shocks $\rightarrow$ inflation?

- Looking forward: looming commercial real-estate losses can potentially have a significant adverse impact on local economic outcomes.