Intermediate Credit and Local Resilience

Erica Jiang¹, Will Shuo Liu², Lee Seltzer³

¹University of Southern California, ²City University of Hong Kong, ³University of Texas at Austin

Abstract

- We test whether bank capitalization affects local resilience during crises.
- Exploit shocks to real economy by COVID-19 pandemic.
- We find that counties with poorly capitalized local banking sectors exhibit more business closures, more unemployment, more decline in income and hours worked during the pandemic.

Motivation

- Previous literature shows lack of bank lending to consumers worsened financial crisis (Ramcharan et al. 2016) and shocks to banking sector can hurt labor markets (Chodorow-Reich 2014).
- Raises the question of whether bank capital can serve as hedging for local economy against real economic shocks like COVID-19 pandemic and associated social distancing.

Research Question

- Were areas with well capitalized banking sectors more resilient to the COVID-19 shock?
- Quantitatively, how much can a better capitalized banking sector reduce socially costly business closures and displacement of labor during real economic downturns?

Data

- Individual-worker daily hours and wage from Homebase
- County-level unemployment from BLS
- Bank Call Reports and FDIC SOD
- Small Business Administration loans and stimulus data
- John Hopkins CSSE COVID data

COVID-19 Shock

- March 16: Social distancing guidelines by the White House.

Dynamic Difference-in-Differences Coefficient Plots

- Treated: county-level tier-1 capital in the bottom quartile among all counties in the same state.
- Shaded area represents 95% confidence interval.

Empirical Analysis

Table 1: Changes in Businesses Open by Tier 1 Ratio

<table>
<thead>
<tr>
<th>Tier 1 Ratio</th>
<th>All</th>
<th>Entertainment</th>
<th>Food</th>
<th>Professional</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom Quarti</td>
<td>Tier 1 × Post</td>
<td>0.144***</td>
<td>-0.522***</td>
<td>-0.682***</td>
<td>-3.499***</td>
</tr>
<tr>
<td></td>
<td>(0.205)</td>
<td>(0.833)</td>
<td>(1.96)</td>
<td>(0.974)</td>
<td>(0.974)</td>
</tr>
<tr>
<td></td>
<td>(0.003)</td>
<td>(0.003)</td>
<td>(0.009)</td>
<td>(0.002)</td>
<td>(0.002)</td>
</tr>
</tbody>
</table>

Table 2: Changes in Individual Wages and Hours by Tier 1 Ratio

| Outcome = β + BottomQuartTier1 × Post + TX × Post + μ + ν + ε |
| Bottom Quartile | All Non-Manager | Manager All Non-Manager | Manager |
| Tier 1 × Post | Weekly Wages | (1) (2) (3) (4) (5) (6) |
|               | All Non-Manager | Manager All Non-Manager | Manager |
|               | 0.012** | 0.012** | 0.012** | 0.012** | 0.012** | 0.012** |
|               | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) |
|               | 2.750 | 2.750 | 2.750 | 2.750 | 2.750 | 2.750 |
|               | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) |

Current Work in Progress

- Empirical analysis about how bank capitalization influences the effectiveness of government stimulus.
- Model to quantify the effect of bank capitalization on local resilience.

References