Remote Competition and Small Business Loans: Evidence from SBA Lending

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Disclaimer: The views in this paper are those of the authors and do not necessarily represent those of the Federal Reserve Banks or the Federal Reserve System.

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Distance in Small Business Lending

- Traditionally, small business is local
  - Asymmetric information
  - Relationship lending

- Distances have increased over last 20 years
  - Technological improvements
  - At the extreme, remote lenders

- What is the impact of remote lenders on total credit?
  - Credit deepening $\implies$ increase total lending
  - Cream skimming $\implies$ (potentially) decrease total lending
  - Growing the market vs. substitution from incumbents
The Impact of Remote Competition on Total Lending?

- Setting: SBA 7(a) Lending
  - Government-guaranteed loans provided to small businesses
  - $25 billion in FY2017
  - Data on all SBA loans from 2001-present

- Case study: the entry of Live Oak Bank
  - Remote lender
  - Largest SBA 7(a) lender (by amount)

- Results:
  - Increases in SBA lending
  - No evidence of declines in lending from incumbents
  - Some evidence of credit to areas with fewer SBA loans
Changes in Borrower-Lender Distance - SBA 7(a) Loans

Distance to the closest branch.

Distance to the closest branch.
Remote Lenders are More Industry-Specialized

Sample: Banks with more than 50 SBA 7(a) Loans between 2010 and 2017. Each circle represents 10% of SBA banks.
Entry of Live Oak Bank

- Remote lender that began SBA lending in 2007
- Majority of loans to just six industries
- Largest SBA 7(a) lender by volume
  - FY2017 $1.93 billion in originations, 5.8% of total SBA 7(a)
## Live Oak Industries

<table>
<thead>
<tr>
<th>Industry</th>
<th>Live Oak Loans</th>
<th>Live Oak’s Share of Loans</th>
<th>Live Oak’s Enter Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterinarians</td>
<td>1,455</td>
<td>0.33</td>
<td>06/2007</td>
</tr>
<tr>
<td>Offices of Dentists</td>
<td>1,038</td>
<td>0.12</td>
<td>03/2009</td>
</tr>
<tr>
<td>Investment Advice</td>
<td>814</td>
<td>0.58</td>
<td>02/2013</td>
</tr>
<tr>
<td>Pharmacies</td>
<td>799</td>
<td>0.30</td>
<td>11/2009</td>
</tr>
<tr>
<td>Broilers</td>
<td>520</td>
<td>0.37</td>
<td>04/2014</td>
</tr>
<tr>
<td>Funeral Homes</td>
<td>311</td>
<td>0.28</td>
<td>09/2011</td>
</tr>
<tr>
<td>Self-Storage</td>
<td>131</td>
<td>0.34</td>
<td>05/2015</td>
</tr>
<tr>
<td>Insurance Agencies</td>
<td>105</td>
<td>0.09</td>
<td>11/2015</td>
</tr>
<tr>
<td>Breweries</td>
<td>97</td>
<td>0.09</td>
<td>04/2015</td>
</tr>
<tr>
<td>Physicians</td>
<td>80</td>
<td>0.02</td>
<td>09/2012</td>
</tr>
<tr>
<td>Other</td>
<td>378</td>
<td>0.01</td>
<td></td>
</tr>
</tbody>
</table>

This table shows the industries (5-digit NAICS codes) where Live Oak Bank has approved loans.
Impact of Entry on Total Lending

- How many loans would have been given if LO did not enter?
  - Compare to similar industries that LO did not enter
  - How to select control industries?

- Choose industries that look similar prior to LO entry

- Construct a “synthetic control” comparison industry
Annual SBA 7(a) Loans - Matched
Was there Substitution from Incumbents?

**Pharmacies**

- Industry
- Synthetic
- No Substitution

**Investment Advice**

- Industry
- Synthetic
- No Substitution

**Veterinarians**

- Industry
- Synthetic
- No Substitution

**Funeral Homes**

- Industry
- Synthetic
- No Substitution
Who are the New Borrowers?

- Are remote lenders expanding program access geographically?
- Access to SBA program varies with proximity to physical branches (Brown and Earle, 2017)
Who are the New Borrowers?

- Are remote lenders expanding program access geographically?
- Access to SBA program varies with proximity to physical branches (Brown and Earle, 2017)
- Partial role for geography
- Remote borrowers farther from physical SBA branches
- Remote market share is larger in areas with
  - Fewer bank branches per capita
  - Fewer pre-entry SBA loans per capita (2000-2008)
Summary of Results

- Case study of the impact of remote competition
  - Total SBA loans increased after entry of large remote lender
  - No evidence of substitution from existing SBA lenders
- Who are the new borrowers?
  - Partial role for geography
  - Caveat: We only observe SBA lending
  - SBA “credit elsewhere” test may limit outside option
- Impact of remote lenders on SBA program
  - Increase size of the program
  - Change in industry composition
  - Some evidence of geographic expansion of program access