

Remote Competition and Small Business Loans: Evidence from SBA Lending

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September 28, 2018

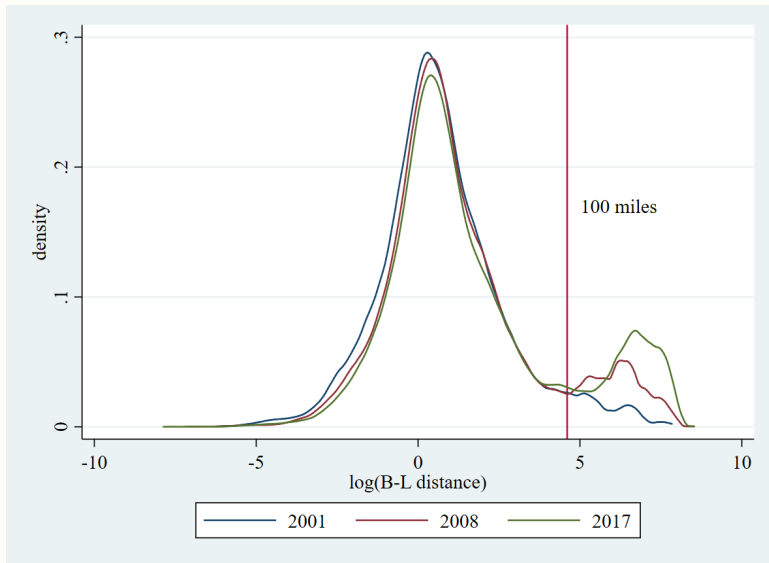
Distance in Small Business Lending

- 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.

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

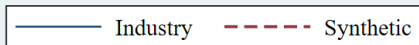
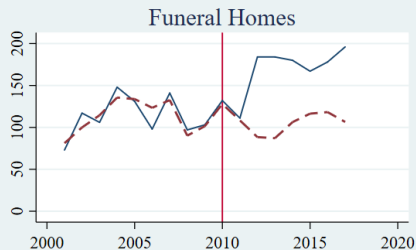
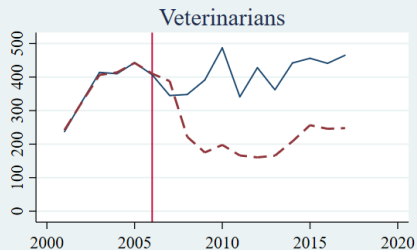
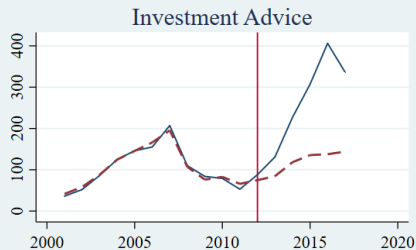
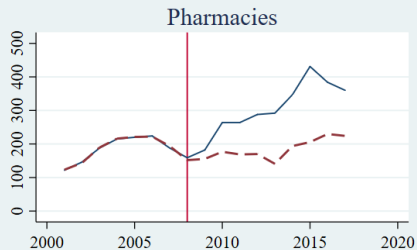
Industry	Live Oak Loans	Live Oak's Share of Loans	Live Oak's Enter Month
Veterinarians	1,455	0.33	06/2007
Offices of Dentists	1,038	0.12	03/2009
Investment Advice	814	0.58	02/2013
Pharmacies	799	0.30	11/2009
Broilers	520	0.37	04/2014
Funeral Homes	311	0.28	09/2011
Self-Storage	131	0.34	05/2015
Insurance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

This table shows the industries (5-digit NAICS codes) where Live Oak Bank has approved loans.

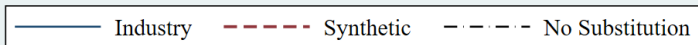
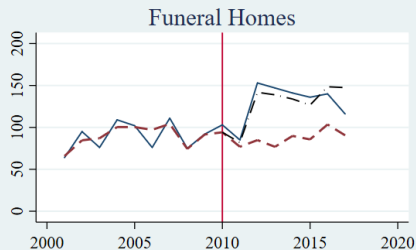
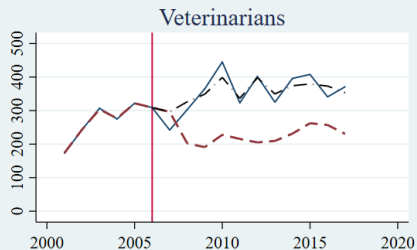
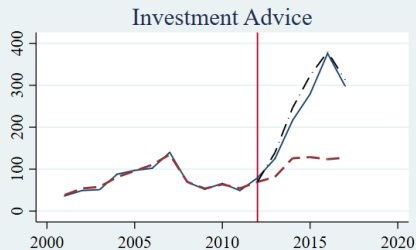
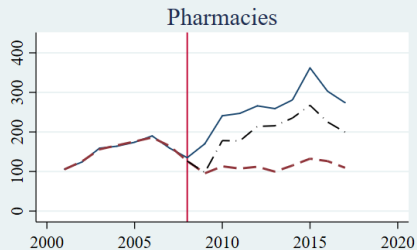
Impact of Entry on Total Lending

- 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
 - Synthetic Control Method - Abadie and Gardeazabal (2003), Abadie, Diamond, and Hainmueller (2010)
- Construct a “synthetic control” comparison industry

Annual SBA 7(a) Loans - Matched



Was there Substitution from Incumbents?



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)

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- 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