Factors Leading to Small Business Bank Lending

Brian W. Richard, Norman Walzer, and Andy Blanke

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Obstacles to Small Business Expansions

• Ability to assess market opportunities
• Staff too busy with existing business demands
• Lack of technical management assistance
• Inadequate financing opportunities
  – Financial institutions—Banks
  – State supported programs
  – Other - - Revolving Loan Funds, Angel Investors, VCs
Small Business Bank Lending

• Plagued by information problems that may result in inefficient allocation of loans
• Publicly supported programs attempt to correct small business lending market imperfections
• Technical Assistance
  – Help with creating business plans and pro forma financial statements, financial reporting, and expansion plans
  – Small Business Development Center
• Loan Subsidies
  – Direct lending by local, state, or federal government
  – Loan guarantees
Small Business Loan Subsidies

- Small Business Administration
  - **SBA 7a Loan Guarantees**--banks can make federally guaranteed loans to small businesses.
    - Guarantee encourages lenders to make loans to businesses that might not quite meet their underwriting terms.
    - Guarantees 85 percent of loans up to $150,000 and 75 percent of loans over $150,000 (Office of the Comptroller of Currency, 2013).
  - **SBA 504 Loans**.
    - SBA loans funds to businesses through Certified Development Companies.
      - Typically, bank provides 50% of project funding (first mortgage)
    - SBA 504 loan funds 40% (second mortgage),
    - Entrepreneur supplies 10% as equity
Small Business Loan Subsidies

• Revolving Loan Funds
  – Locally managed, self-replenishing pool of money, using interest and principal repayments to issue new loans
  – RLF management practices vary by fund (unregulated loan funds), many operate similar to SBA 504 loan program, providing subordinate loans to additional bank financing
  – Often have small balances and don’t provide management assistance
  – May not have much expertise in lending or business management practices
  – Often not highly visible to potential business borrowers
Small Business Technical Assistance

• *Business Incubators* offer a variety of services to small businesses including advice on business plan development and refinement, marketing assistance, business training, high-speed internet access, and accounting assistance (Knopp, 2006).

• *Community Colleges*. Community colleges actively support local economic development --promoting an entrepreneurial culture and building the human capital required for a successful business venture.
Small Business Technical Assistance

- *Service Corps of Retired Executives (SCORE).* SCORE provides technical assistance for small businesses through both in-person mentoring and through a variety of online resources designed to help small businesses owners find and successfully apply for credit (SCORE Association, 2011).

- *Small Business Development Centers (SBDCs).* SBDCs provide an array of services for entrepreneurs including market research, business plan development, procurement aid, and preparing businesses for loan applications (SBA, 2013).

- *Chambers of Commerce.* Some chambers of commerce offer loan packaging, a service where financial consultants prepare loan proposals for greater success in loan applications to banks.
Small Business Relationship Lending

• Credit scoring and relationship lending used to address the issue of unclear financial information. Relationship lending largely bases loan decisions on proprietary information about the firm and its owner gathered through contacts over time (Ongena and Smith, 2001; Giannetti, 2012).
  – “Small businesses consistently appear more willing to ask for credit when their bank is a regional or community bank (and they appear to be more successful in their requests)” (Dennis, 2012).
Hypotheses

• $H_1$: Positive relationship between the frequency banks work with the SBA and the bank’s small business lending growth.

• $H_2$: Positive relationship between the frequency banks work with Revolving Loan Funds and the bank’s small business lending growth.

• $H_3$: Community banks have higher small business lending growth than larger banks.

• $H_4$: Banks that work with technical assistance providers have higher small business lending growth.
Survey Data

• Survey of bankers
  – Illinois, October 2011
  – Wisconsin, March 2013

• Dependent Variable: Indicate how your financial institution's total number of approved small business loans has changed in the past 12 months.
  – Increased by more than 10% (coded as 7)
  – Increased by 5% - 10% (6)
  – Increased by 1% - 5% (5)
  – Unchanged (4)
  – Decreased by 1% - 5% (3)
  – Decreased by 5% - 10% (2)
  – Decreased by more than 10% (1)
National Bank, Community Bank, or S & L

• Bankers were asked about their charter--national bank, regional bank, community bank, or savings & loan.

• A dichotomous variable was created, set at 1 for community bank or savings & loan and 0 for other responses.

  – Of the 110 responses, 89 indicated that their bank was a community bank or savings & loan.
Combined Responses from Bank Survey
Illinois (2011) and Wisconsin (2013)

• How often has your institution worked with SBA or a RLF during the past two years to close small business loans?
SBA and ILRF Use Comparisons
Illinois and Wisconsin

![Bar chart showing comparisons between Illinois and Wisconsin SBA and ILRF use.](chart.png)
Working with Other Organizations
Illinois and Wisconsin Bank Responses

- For hypothesis 4, an index was created based on responses to the question “How often does your institution work with the following organizations to assist in business support and development?”
  - Small Business Development Center
  - S.C.O.R.E.
  - Chamber of Commerce
  - Local Economic Development Agency
  - EDA District Office
  - Local University
  - Local Community College
  - State Department of Economic Development
Survey Data

• Control variables included to account for differences in local economies and banks.
  – Dummy variable used: responses in the Wisconsin survey are 1 (58 responses) and Illinois are 0 (52 responses).
  – Respondents selected from statements that “best characterizes the local economic conditions in your region?” Both positive and negative statements were included. If more positive than negative statements were selected, the local economy variable was set to 1; otherwise 0.
  • Respondents from Wisconsin had more positive view (67 percent vs. 34 percent of Illinois respondents) perhaps partly because of the timing of the surveys.
Survey Data

- Control variables included to account for differences in local economies and banks.
  - Respondents were asked “On average what percentage of personal equity injection does your institution require for a business loan?” Respondents selected an answer from the following categories:
  - More than 80% (coded as 5)
  - 61% to 80% (4)
  - 41% to 60% (3)
  - 21% to 40% (2)
  - Less than 20% (1)
Definition of Variables

**WSBA**: How often worked with SBA on loans in past 12 months

**WRLF**: How often worked with RLFs in past 12 months

**CommBank**: Community Banks = 1; Others=0

**Assistindex**: How often work with one of 8 other agencies, SBDC etc. in past 12 months.

**Wisc**: Adjustment for time of survey 2011 = 0; 2013=1(Wisconsin)

**ECPos**: Economic conditions in area rating

**PCTEquity**: Percent of equity bank requires for loans

**Dep. Variable**: Change in total number of approved business loans in past 12 months (Index)
## Ordinal Regression Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>Wald</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WSBA</td>
<td>0.389</td>
<td>0.183</td>
<td>4.54</td>
<td>0.033</td>
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<tr>
<td>WRLF</td>
<td>0.228</td>
<td>0.226</td>
<td>1.01</td>
<td>0.314</td>
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<tr>
<td>CommBank</td>
<td>-1.832</td>
<td>0.499</td>
<td>13.50</td>
<td>0.000</td>
</tr>
<tr>
<td>AssistIndex</td>
<td>0.676</td>
<td>0.310</td>
<td>4.77</td>
<td>0.029</td>
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<tr>
<td>Wisc</td>
<td>0.369</td>
<td>0.408</td>
<td>0.82</td>
<td>0.366</td>
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<tr>
<td>ECPos</td>
<td>1.109</td>
<td>0.384</td>
<td>8.34</td>
<td>0.004</td>
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<tr>
<td>PctEquity</td>
<td>-1.307</td>
<td>0.352</td>
<td>13.75</td>
<td>0.000</td>
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</table>

<table>
<thead>
<tr>
<th>-2 Log Likelihood</th>
<th>Chi-Square</th>
<th>DF</th>
<th>Sig.</th>
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<tbody>
<tr>
<td>343.552</td>
<td>48.999</td>
<td>7</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Nagelkerke R-Square

0.369
Findings

Interactions with SBA

• $H_1$: A positive relationship exists between the frequency banks work with the SBA and the bank’s small business lending growth.
  – This hypothesis is supported by the data.
  – However, some of the comments provided by bankers in open-ended questions indicated that they are frequently frustrated with the amount of ‘red tape’ associated with SBA guarantees and loans.
Findings

RLFs and Lending Growth

- \( H_2 \): A positive relationship exists between the frequency the banks work with RLFs and the bank’s small business lending growth.
  - Results not significant
  - Revolving loan funds are often run by city/county employees or local EDOs. The loan funds are managed as a part time job and they may not market them vigorously
Findings

Size of Bank

• H$_3$: Community banks have higher small business lending growth than larger banks.

  – The variable for community banks produced a result contrary to the hypothesis.
  – This is surprising because there is considerable literature focused on the practices of community banks being more ‘small business friendly’.
  – However, some studies are finding that this may no longer the case. In an international study, de la Torre et.al. (2010) found that large banks are perceived as the main player in the small-medium sized businesses financing market.
  – Small banks may not have expertise to evaluate business opportunities.
  – Large banks increasingly rely on more sophisticated screening mechanisms that lower the information costs of providing small business loans.
Findings

Collaboration with TA Providers

• $H_4$: Banks that work with technical assistance providers have higher small business lending growth.
  – This hypothesis was supported by the data.
  – It is not clear from the data whether the relationship is driven by financial TA or other TA making the businesses more viable (marketing, planning, exporting, etc.).
  – It may be that technical assistance providers are screening the applications that come to the banks.
Additional Research

• Identify location of bank and business starts
• Obtain more information about obstacles to lending
• Explore management of RLFs and effects
• Understand collaboration between banks and RLFs, in more detail
• Determine types of training needed by RLF managers
• Identify best practices with RLFs
• Survey entrepreneurs to determine access to banks and other sources
For More Information, Contact

Brian W. Richard  
Senior Research Associate  
brichard@niu.edu

Norman Walzer  
Senior Research Scholar  
nwalzer@niu.edu

Andy Blanke  
Research Associate  
ablanke@niu.edu

Center for Governmental Studies  
148 N. Third Street  
DeKalb, IL 60115  
www.NIUCGS.org
References

• Council of Development Finance Agencies (N.D.). *CDFA Spotlight: Revolving Loan Funds (RLFs)*.
References


• Office of the Comptroller of the Currency (2013). *Community Development Fact Sheet: SBA 7(a) Guaranteed Loan Program*.


• United States Small Business Administration (N.D.). *Credit Factors: Equity Investment*.


# Business Lending Trends

<table>
<thead>
<tr>
<th>Year</th>
<th>Commercial and Industrial loans</th>
<th>Small Business loans</th>
<th>Small Business Loans as % of Total Com'l Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1,085,572</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>1,214,728</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>1,439,127</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>1,493,934</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>1,213,895</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>1,183,962</td>
<td>334,214</td>
<td>28.23%</td>
</tr>
<tr>
<td>2011</td>
<td>1,345,034</td>
<td>315,457</td>
<td>23.45%</td>
</tr>
<tr>
<td>2012</td>
<td>1,508,400</td>
<td>302,224</td>
<td>20.04%</td>
</tr>
</tbody>
</table>

Source: Federal Deposit Insurance Corporation
Changes in Business Loans

• *Dependent Variable:* How financial institution's number of approved small business loans changed in past 12 months.
Methodology

• The data were analyzed using ordinal logistic regression.
• Ordinal logistic regression is an extension of the general logistic regression model. It predicts cumulative logits:

\[
\ln(Y'_j) = \ln\left( \frac{\pi_j(x)}{1 - \pi_j(x)} \right) = \alpha_j + (\beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_p X_p)
\]

- Where \(\pi(Y \leq j \mid X_1, X_2, \ldots, X_p) = \pi_j(x)\) represent the probability that a response falls in a category less than or equal to the \(j\)th category” (O’Connell, 2006, p. 31).