Bank Specialization and Zombie Lending

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Abstract

Banks often specialize in lending to specific sectors and gain sector-specific information through having many interactions with borrowers from the same sector. We argue that such sectoral expertise also makes banks more aware of zombie firms in the sector as well as more knowledgeable about the negative impact that zombie firms exert on healthy borrowers. This induces specialized banks to reduce zombie lending. The reduction in zombie lending is larger when the scope and opportunity cost of negative spillovers to healthy borrowers is larger; namely, when the fraction of sectoral labor stuck in zombie firms is larger or when the sector is expected to grow faster. Additionally, specialized banks reduce zombie lending less in sectors with higher asset specificity, as zombie firms’ default (and potential asset fire sales) could trigger reductions in healthy borrowers’ collateral values.

1. Theory

- Banks specialize in lending to some sectors (De Jonghe et al. 2020 RF; Blickle et al. 2021)
  → Giving them an information advantage (Berger et al. 2017 JAE)
  → Incl. identifying zombies + awareness of their negative effect on healthy firms
- Banks internalize spillover effects of their credit decisions on incumbent borrowers (Giannetti & Saidi 2019 RFS)
  ⇒ H: Specialized banks grant less credit to zombie firms.

2a. Specialization and Zombie Lending: Main Findings

- Data provided by the National Bank of Belgium
- Corporate lending at bank-firm level (credit register), matched with firm and bank balance sheets
- Sample: 2004-2018 (annual frequency), excl. micro-sized borrowers

<table>
<thead>
<tr>
<th>Specialization</th>
<th>∆Ln(Credit)</th>
<th>∆Credit/Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.01***</td>
<td>0.51**</td>
<td>0.11***</td>
</tr>
<tr>
<td>(0.40)</td>
<td>(0.21)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Z×Specialization</td>
<td>-1.53***</td>
<td>-0.85***</td>
</tr>
<tr>
<td>(0.31)</td>
<td>(0.24)</td>
<td>(0.08)</td>
</tr>
</tbody>
</table>

Observations: 614322
R-squared: 0.47
N. of clusters: 1774

2b. Specialization and Zombie Lending: Channels

- Results driven by unique sectoral soft information
  ← horse-race with firm-specific hard & soft information
- Channel stronger when negative (congestion) effect of zombies on healthy borrowers more likely/painful
  ← interact with share of sectoral labor stuck in zombies and expected growth of sector
- Channel weaker when zombie default may trigger reduction in (collateral) asset values of healthy borrowers (Acharya et al. 2007 JFE)
  ← interact with sector asset specificity

Dependent variable: ∆Ln(Credit)
Sector variable (triple interaction): ZLabor Share Sector Growth Specificity

<table>
<thead>
<tr>
<th>Specialization</th>
<th>0.52**</th>
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<th>0.50**</th>
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<tbody>
<tr>
<td>(0.21)</td>
<td>(0.20)</td>
<td>(0.21)</td>
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<tr>
<td>Z×Specialization</td>
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<td>-0.38</td>
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<tr>
<td>(0.32)</td>
<td>(0.24)</td>
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<tr>
<td>Specialization×Sector Variable</td>
<td>0.30</td>
<td>0.22</td>
<td>0.05</td>
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<tr>
<td>(0.24)</td>
<td>(0.25)</td>
<td>(0.12)</td>
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<tr>
<td>Z×Specialization×Sector Variable</td>
<td>-0.52**</td>
<td>-0.65***</td>
<td>1.04***</td>
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3. Contributions

1. Novel determinant of zombie lending: bank specialization (=lending concentration):
   - Specialization leads to sector-specific information advantage
   - ↑ specialization → ↓ zombie lending
     ↑ specialization & ↑ sector share of zombie labor → ↓ zombie lending
     ↑ specialization & ↑ sector growth → ↓ zombie lending
     ↑ specialization & ↑ sector asset specificity → ↑ zombie lending

2. New zombie definition:
   - See paper for more details!