Peer Information in the Cost of Debt

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Introduction
This paper studies the role of information in bank lending behavior and finds an unexplored spillover effect to similar firms financing condition, because banks value peer information from prior lending relationships.

• Using syndicated loan data, I find that firms obtain lower loan rates when borrowing from banks with prior relationship with similar firms, or peers, and the benefit increases with firm and peer group similarity.
• The previous benefit vanishes when peers in bank portfolio committed fraud, which is consistent with the idea that peer information plays a role in bank lending decisions.

Mixed Theories
• Different with other investors, banks have private peer information collected from previous lending and have better understanding about peer projects.
• The informational advantage reduces lending costs, however, it does not necessarily result in lower loan rates, as it depends on the bargaining power of banks and firms.
• In addition, lending to many similar firms is undesirable from the standpoint of diversification and banks may demand a premium for that.

Empirical Framework
• I construct peer information measure
  – at bank-firm level
  – by considering the similarity between current borrower and previous peers in terms of their product market
• Empirical identification is challenging:
  – Unobserved omitted variables, such as bank expertise.
  – Endogenous matching between banks and firms.
• To establish a causal interpretation from peers, I use peer financial misconduct events as negative shocks to peers at bank-firm level and examine the change in loan rates.
• Financial misconduct behavior raises the costs of credit:

\[ \text{PeerLoan}_{l,t} = \rho \times (\text{PeerFraud}_{l,t}) \times \text{PeerLoan}_{l,j} + \rho \times \text{PeerFraud}_{l,t} \times \text{PeerLoan}_{l,t} + X \gamma + \delta b + \epsilon l t. \]

Empirical Results
Main Results

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<thead>
<tr>
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<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
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<tbody>
<tr>
<td>PeerFraud [b]</td>
<td>8.714***</td>
<td>6.588**</td>
<td>6.304**</td>
<td>8.981*</td>
</tr>
<tr>
<td>PeerLoan</td>
<td>(3.934)</td>
<td>(3.848)</td>
<td>(3.038)</td>
<td>(4.590)</td>
</tr>
<tr>
<td>OwnFraud</td>
<td>39.269***</td>
<td>35.265***</td>
<td>34.804***</td>
<td></td>
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<tr>
<td>TNIC Fraud</td>
<td>9.628***</td>
<td>0.641</td>
<td>-2.306</td>
<td>-2.174</td>
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<tr>
<td>Borrower FE</td>
<td>(2.681)</td>
<td>(2.071)</td>
<td>(2.303)</td>
<td>(2.651)</td>
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<td>Bank – Year FE</td>
<td>21.516</td>
<td>17.549</td>
<td>16.796</td>
<td>12.079</td>
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<td>Observations</td>
<td>0.579</td>
<td>0.665</td>
<td>0.805</td>
<td>0.812</td>
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</table>

• Firms obtain lower loan rates when borrowing from banks that lent to their peers in previous years.
• However, the benefit in PeerLoan vanishes if peers banks lent to committed fraud, conditional on other factors.
• Bank-year fixed effect washes out time-varying bank specific conditions:
  – banks raise loan rates to all borrowers after potential default (Murfin, 2012)
  – reputation effect (Lindahl and Paravisini, 2011).
• Robust results for firms never committed fraud.

Within-firm analysis: Propensity score matching:
• Ideally, one should compare loan rates offered to the same firm-year from (at least) two banks that differ in whether they lent to fraudulent peers.
• Due to the limited number of firms that satisfy the conditions, I use propensity score matching to find loan-pairs that are alike in all aspects except whether there are fraudulent peers (bank lent).
• The exercise shows a robust estimate of higher borrowing costs, around 12-15 bps, when firms borrow from banks that have fraudulent peer loans in their portfolio.

Discussions
Why do banks react to peer fraud by charging a higher loan rates?
1. Belief/trust deterioration: Peer financial fraud deteriorates banks’ information precision gained from peers
2. Rent extraction: Banks take the advantage of private information and hold-up the borrower, when public peer information deteriorates and other banks are uncertain.
3. I find evidence supporting the view as the increase in loan rates are concentrated in relationship loans and firms without public debt issuance, which are more likely to be held up.
4. Why would firms borrow from banks that offer higher loan rates?
  – matching frictions
  – concentrated on relationship loans: less able to switch banks.
  – weaker firms

Negative Spillover in Lending: Quantities
Finally, I provide evidence that banks would reduce lending to firms when their peers committed fraud, conditional on the supply and demand side factors.

Contributions
• The paper provides novel evidence that peer firms can have an impact on costs of debt based on syndicated loans.
• The findings support that whether information advantage can result in lower loan rates depends on the relative bargaining power of banks and firms:
  – in normal conditions, firms may have larger bargaining power due to the competitiveness of syndicated loan market.
  – while banks take the charge of power when information environment is unfavorable to firms.
• Fraud behavior not only results in substantially higher loan rates, but may also raise the cost and availability of credit for similar firms.