Crowdfunding Platforms and Financial Inclusion: Fulfilled Promise or Disillusion?

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Summary

What and Why?

• Crowdfunding platforms emerged with the promise to democratize access to capital and promote financial inclusion.

• To date, little empirical evidence, especially in developing countries.

• Our objective is to fill this gap.

• Research Question: Does crowdfunding fulfill the promise of promoting financial inclusion?

How?

• Panel data from 122 countries on 2800+ microfinance institutions

• Fixed Effects Model using IV Estimations

• Data from Mix Market, IMF, World Bank and KIVA.

Main Results

Empirical evidence that crowdfunding can improve access to capital, to some extent.

➢ Improvement in number of customers reached

➢ No significant impact on interest rates or loan amount.

➢ Other measures should be considered.
Outline of the Presentation

- Context and Theoretical Framework
- Data and Methodology
- Main Results
- Conclusion
Context

- Socially-oriented P2P lending platform

Microfinance Institutions (on behalf of borrowers) leftrightarrow  Crowdfunding platform leftrightarrow  Lenders
Theoretical Framework

- To enable the democratization of access to capital, we would need to observe.
  - More people getting access to loans. Especially those with less access (e.g., more vulnerable individuals).
- How crowdfunding platforms can do this?

**Cost reduction**
- Reliance on offline alternatives.
- Online option (crowdfunding) allows access to an international pool of lenders – lower search costs.
- Potential result: Expansion of financial services.

**Matches with pro-socially oriented lenders**
- If lenders were profit-seekers: (more) risk aversion.
- Potentially shift services towards less risky borrowers (less vulnerable).
- However, lenders display pro-social behaviour.
About the Data

• Performance of 2,806 microfinance institutions from 122 countries
• Data about the online activity (on Kiva) of 200+ MFIs
• Yearly frequency (2006 to 2018)
• Unbalanced panel – 15,797 MFI-year observations.

• Data Sources:
  • Microfinance Information Exchange (MIX Market)
  • KIVA - the world’s largest socially oriented peer-to-peer lending platform
  • Additional controls for the structure of the economy come from the IMF and World Bank’s World Development Indicators
Methodology

• **Dependent variables: Proxies for financial inclusion**
  1. Number of borrowers (log). (Outreach breadth)
  2. Average loan size divided by the GNI per capita. (Outreach depth)
  3. Real yield on gross loan portfolio – the interests and fees generated from loans. (Outreach depth)

• **Independent variable: Proxy for online activity**
  - Activity on Kiva – Number of posted loans/year (almost all posted loans are fully funded).

• **Control variables: Internal and external factors**
  - Internal (e.g., size, maturity of MFI) // External (e.g., income levels, institutional quality etc.)

• **Methodology: Panel regressions with Fixed Effects (FE) IV estimator.**
  - Instrumental variable (IV) estimation to mitigate endogeneity issues.
Main Results

- A statistically significant impact of crowdfunding on total number of borrowers.
- The impact is economically modest: 10% increase in number of loan requests results in about 0.35% increase in overall borrowers.
- Consistent across specifications.

Table 1: Impact of Crowdfunding on number of borrowers.

<table>
<thead>
<tr>
<th></th>
<th>Nb. active borrowers (Log)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kiva loans t-1 (Log)</td>
<td>0.035***</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
</tr>
<tr>
<td>Equity to total assets</td>
<td>-0.563***</td>
</tr>
<tr>
<td></td>
<td>(0.132)</td>
</tr>
<tr>
<td>Control of corruption</td>
<td>0.190*</td>
</tr>
<tr>
<td></td>
<td>(0.098)</td>
</tr>
<tr>
<td>Domestic credit to private sector (% of GDP)</td>
<td>0.007***</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
</tr>
<tr>
<td>GDP growth (annual %)</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>0.000***</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
</tr>
<tr>
<td>Age MFI</td>
<td>Yes</td>
</tr>
<tr>
<td>Size MFI</td>
<td>Yes</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
</tr>
<tr>
<td>Constant</td>
<td>7.310***</td>
</tr>
<tr>
<td></td>
<td>(0.162)</td>
</tr>
<tr>
<td>Observations</td>
<td>11,904</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.231</td>
</tr>
<tr>
<td>Number of MFIs</td>
<td>2,161</td>
</tr>
</tbody>
</table>

Main Results

- A statistically significant impact of crowdfunding on total number of borrowers.
- The impact is economically modest: 10% increase in number of loan requests results in about 0.35% increase in overall borrowers.
- Consistent across specifications.
Main Results

- We do not find evidence of an impact of crowdfunding on the ability of more vulnerable borrowers to get loans.
- Consistent across specifications.

**Table 2: Impact of crowdfunding on outreach depth**

<table>
<thead>
<tr>
<th></th>
<th>Yield on gross portfolio (real)</th>
<th>Average loan size per borrower/ GNI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kiva loans t-1 (Log)</td>
<td>0.001 (0.001)</td>
<td>0.094 (0.090)</td>
</tr>
<tr>
<td>Equity to total assets</td>
<td>0.010 (0.012)</td>
<td>-0.778 (0.875)</td>
</tr>
<tr>
<td>Control of corruption</td>
<td>0.041*** (0.012)</td>
<td>2.148 (2.196)</td>
</tr>
<tr>
<td>Domestic credit to private sector (% of GDP)</td>
<td>-0.001*** (0.000)</td>
<td>-0.079 (0.099)</td>
</tr>
<tr>
<td>GDP growth (annual %)</td>
<td>-0.001 (0.000)</td>
<td>-0.584 (0.600)</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>-0.000 (0.000)</td>
<td>-0.001 (0.001)</td>
</tr>
<tr>
<td>Age MFI</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Size MFI</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Constant</td>
<td>0.307*** (0.019)</td>
<td>14.515 (12.945)</td>
</tr>
<tr>
<td>Observations</td>
<td>10,497</td>
<td>11,615</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.039</td>
<td>0.006</td>
</tr>
<tr>
<td>Number of MFIs</td>
<td>1,907</td>
<td>2,148</td>
</tr>
</tbody>
</table>
Conclusion

• Evidence of crowdfunding leading to more outreach breadth and contributing to financial inclusion.

• No evidence of improvement in reaching out to the most vulnerable people.

• While digital technologies can contribute to reducing barriers to financial access, the enhancement of institutional quality, legal and regulatory frameworks, and investments in entrepreneurial environment remain equally crucial.
Thank you!

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