Does Fintech Credit Reduce Income Inequality? Evidence from Migrant versus Native Business Owners

Pan Jiang; Si Li
Wilfrid Laurier University

Institutional Background

Ant Group's Business Loan

Data & Empirical Setting

Data:
- provider: Ant’s Group, China’s leading FinTech firm
- 167,268 active individual business owners (anonymous and desensitized)
- Jan 2017 - July 2019, monthly data
- Variables:
  - business performance (revenue, # of transactions, # of customers)
  - 0-1 indicators on being migrant, loan taking, owning online shops, owning a QR money-receiving code, etc.

Empirical Setting:

\[ \ln(\text{Revenue}_i) = b_1 \text{Migrant}_i + b_2 \text{DrawLoan}_i + b_3 \text{Migrant}_i \times \text{DrawLoan}_i + \epsilon_i \]

• revenue: monthly money inflow into a user’s Alipay account
• Migrant: = 1 if province of birth ≠ province of residence
• DrawLoan: = 1 if the business owner draws Fintech credit during the month

Expectation: \( b_2 > 0 \)

Matched sample
- Migrant and native observations are matched by city, month, industry and revenue of past three months.

Motivation

Disadvantaged compared to natives
- Substantial discrimination in the labor market (Friedman and Lee, 2010)
- Lower average incomes (Knight et al., 2010, Meng and Bai, 2007).
- Face barriers to access financial services (Li, 2010; Wang and Tian, 2014)

Fintech & Financial Access:
- Big data → Info Asymmetry \( \rightarrow \) ↑ Equal Financial Access

Main Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Full Sample</th>
<th>Including only business owners who draw loans at least once during the sample period</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{Migrant}_i )</td>
<td>0.0407***</td>
<td>0.0349***</td>
</tr>
<tr>
<td>( \text{DrawLoan}_i )</td>
<td>0.1646***</td>
<td>0.0707***</td>
</tr>
<tr>
<td>( \text{Migrant}_i \times \text{DrawLoan}_i )</td>
<td>0.1567***</td>
<td>0.1377***</td>
</tr>
</tbody>
</table>

Controls
- \( \text{City FE} \)
- \( \text{Industry FE} \)
- \( \text{Occupation FE} \)
- \( \text{Month FE} \)
- \# Obs.: 827,888
- Adj R2: 0.2885
- 1 Obs.: 2017

Conclusion
- Digital business credit brings a positive additional gain for migrants over natives in business revenues
- The effect mainly exists...
  - in cities and regions with higher concentration of migrants
  - for business owners who operate either online or offline via QR code (not both).
- The effect is more prominent for business owners with more financial constraint
- Overall, our findings support that Fintech plays an important role in reducing income gap between migrant and native business owners.

Contribution
- Income inequality: Demirgüç-Kunt and Levine, 2009; Beck et al., 2007 typically examines overall inequality, while we look at a between-group income inequality
- Migration & Migrants (e.g., Ratha, et al., 2011) haven’t examined the impact from financial market
- Microfinance, mobile money (e.g., Jack and Suri, 2014, 2016; Lee, et al., 2017) touch on migrants yet focus more on migrant’s hometown, typically rural area, instead of their living in the destination cities.

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