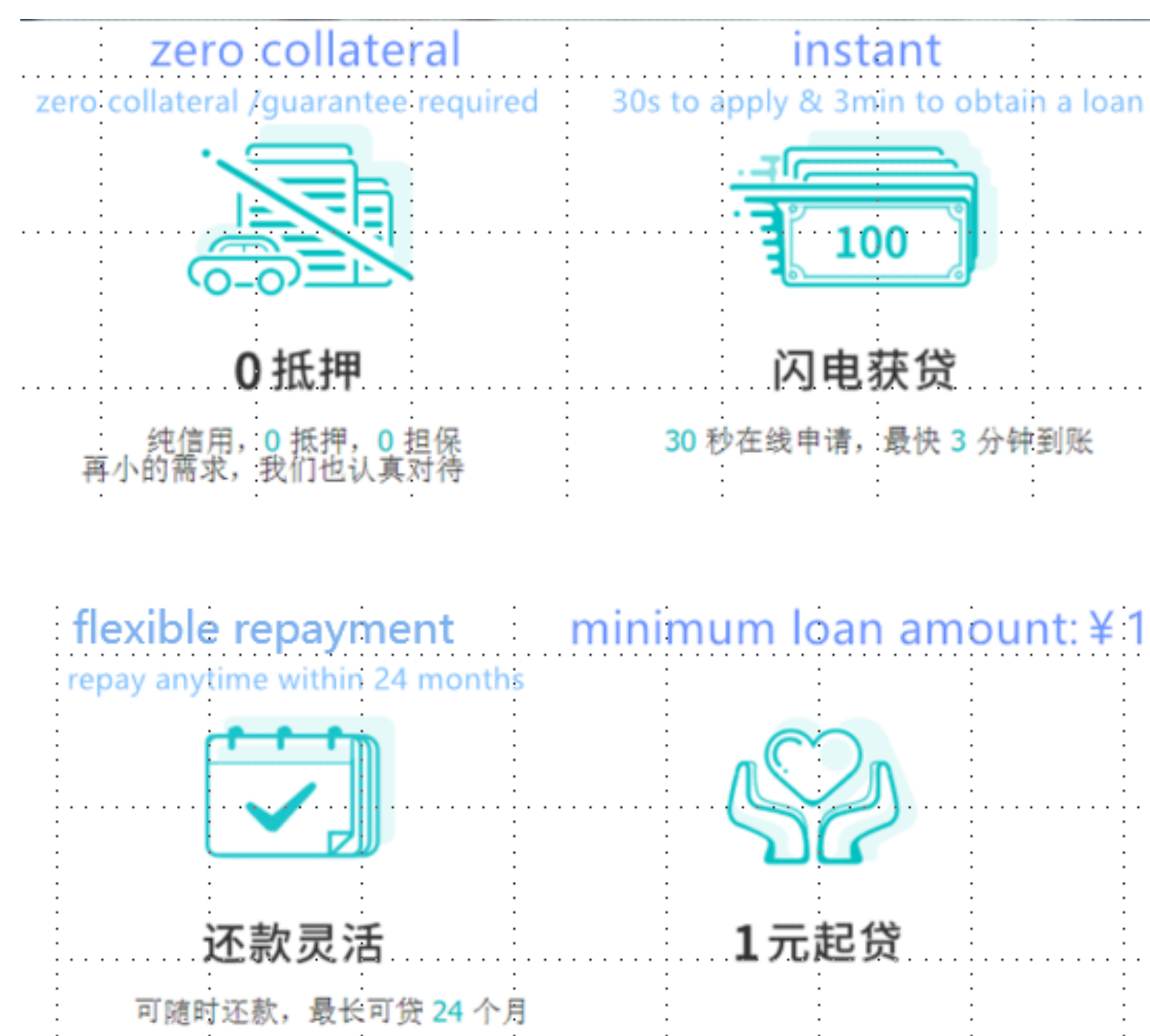


Does Fintech Credit Reduce Income Inequality? Evidence from Migrant versus Native Business Owners

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
Micro-level data

- 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.
 - business owners' demographics, industry, resident city, etc.

Empirical Setting:

- $\ln(\text{revenue}_{i,t})$
 $= b_1 \text{Migrant}_i + b_2 \text{DrawLoan}_{i,t} + b_3 \text{Migrant}_i \times \text{DrawLoan}_{i,t} + \text{Ctrls} + A_c + B_t + \varepsilon_{i,t}$
- **revenue:** monthly money inflow into a user's Alipay account
 - **Migrant:** =1 if province of birth \neq province of residence
 - **DrawLoan:** =1 if the business owner draws Fintech credit during the month

Expectation: $b_3 > 0$

Matched sample

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

Motivation

Migrant Population

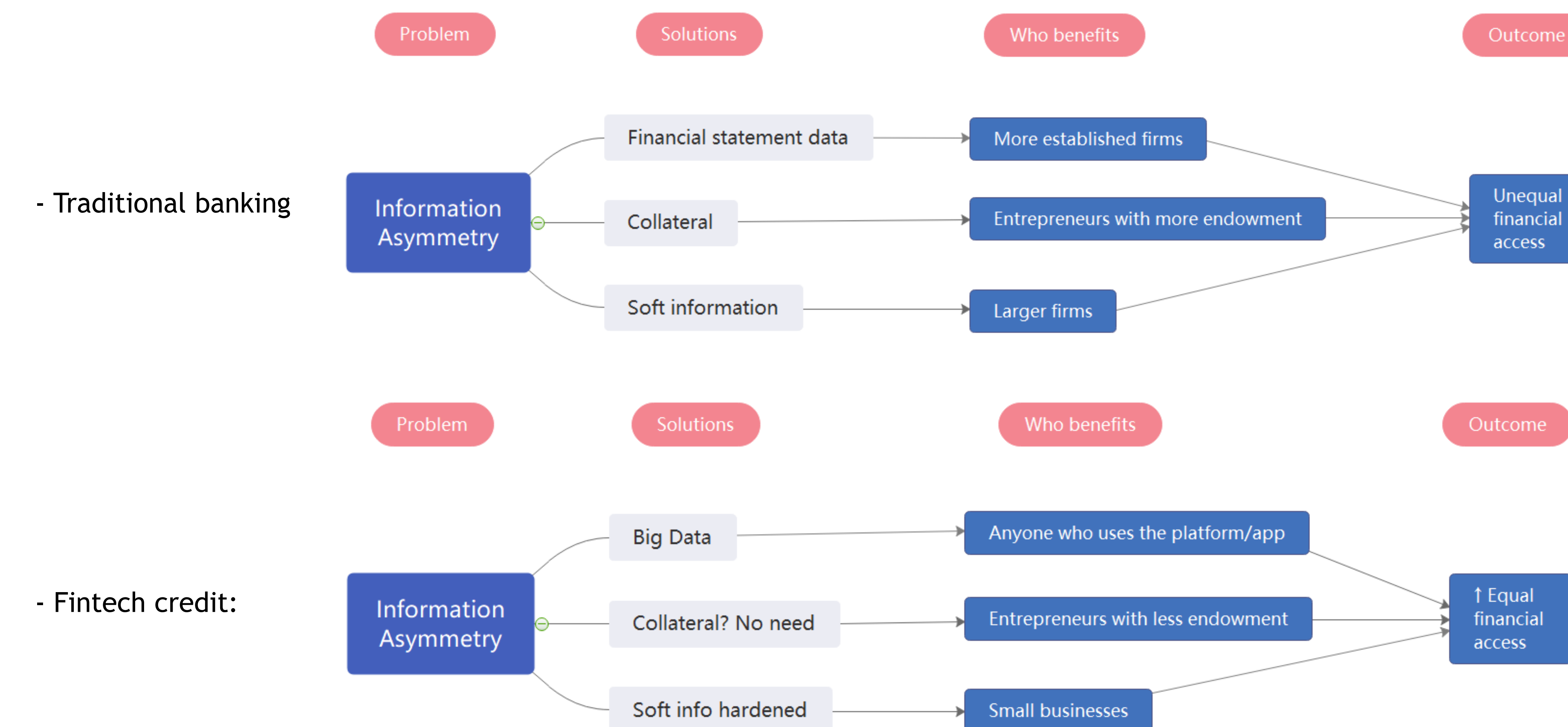
Large Population
 236 million ($\approx 1/6$ of total population)
 $\approx 40\%$ run businesses
 (self-employed or employer)

Disadvantaged compared to natives

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

Fintech & Financial Access:

Big data \rightarrow Info Asymmetry $\downarrow \rightarrow$ \uparrow Equal Financial Access



Research Question: Does Fintech Credit Reduce Migrant-Native income gap?

Main Results

Effect of FinTech Microloan on Migrant-Native Business Revenues

$$\ln(\text{revenue}_{i,t}) = b_1 \text{Migrant}_i + b_2 \text{DrawLoan}_{i,t} + b_3 \text{Migrant}_i \times \text{DrawLoan}_{i,t} + \text{Ctrls} + A_c + B_t + \varepsilon_{i,t}$$

Dep. var. = $\ln(\text{Revenue})$	(1) Full sample	(2) including only business owners who draw loans at least once during the sample period
Migrant_i	0.0073** [0.0035]	0.0459*** [0.0054]
$\text{DrawLoan}_{i,t}$	0.1640*** [0.0060]	0.0797*** [0.0065]
$\text{Migrant}_i \times \text{DrawLoan}_{i,t}$	0.1667*** [0.0085]	0.1377*** [0.0094]
Controls	Yes	Yes
City FE	Yes	Yes
Industry FE	Yes	Yes
Occupation FE	Yes	Yes
Month FE	Yes	Yes
# Obs.	827,888	469,489
Adj R2	0.2880	0.2628

Dep. var. = $\ln(\text{Revenue})$	(1) FinConstraint=1 if Prob(owning real property) is below the 25 th percentile	(2) FinConstraint=1 if Prob(owning real property) is below median
FinConstraint_i	-0.0719*** [0.0063]	0.0823*** [0.0060]
Migrant_i	0.0179*** [0.0042]	0.0500*** [0.0050]
$\text{DrawLoan}_{i,t}$	0.1806*** [0.0066]	0.2447*** [0.0080]
$\text{Migrant}_i \times \text{DrawLoan}_{i,t}$	0.1470*** [0.0096]	0.0953*** [0.0118]
$\text{Migrant}_i \times \text{FinConstraint}_i$	-0.0366*** [0.0077]	-0.0874*** [0.0070]
$\text{DrawLoan}_{i,t} \times \text{FinConstraint}_i$	-0.1098*** [0.0144]	-0.1760*** [0.0116]
$\text{Migrant}_i \times \text{DrawLoan}_{i,t} \times \text{FinConstraint}_i$	0.0982*** [0.0209]	0.1549*** [0.0170]
Controls	Yes	Yes
City FE	Yes	Yes
Industry FE	Yes	Yes
Occupation FE	Yes	Yes
Month FE	Yes	Yes
# Obs.	827,888	827,888
Adj R2	0.2885	0.2883

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

Strands of literature

- Income Inequality (eg: Demirgüç-Kunt and Levine, 2009; Beck et al., 2007) typically examines *overall* inequality, while we look at a *between-group* income inequality
- Migration & Migrants (eg: Ratha, et al., 2011) haven't examined the impact from *financial* market
- Microfinance, mobile money (eg: 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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