

Fintech, Growth & Financial Inclusion

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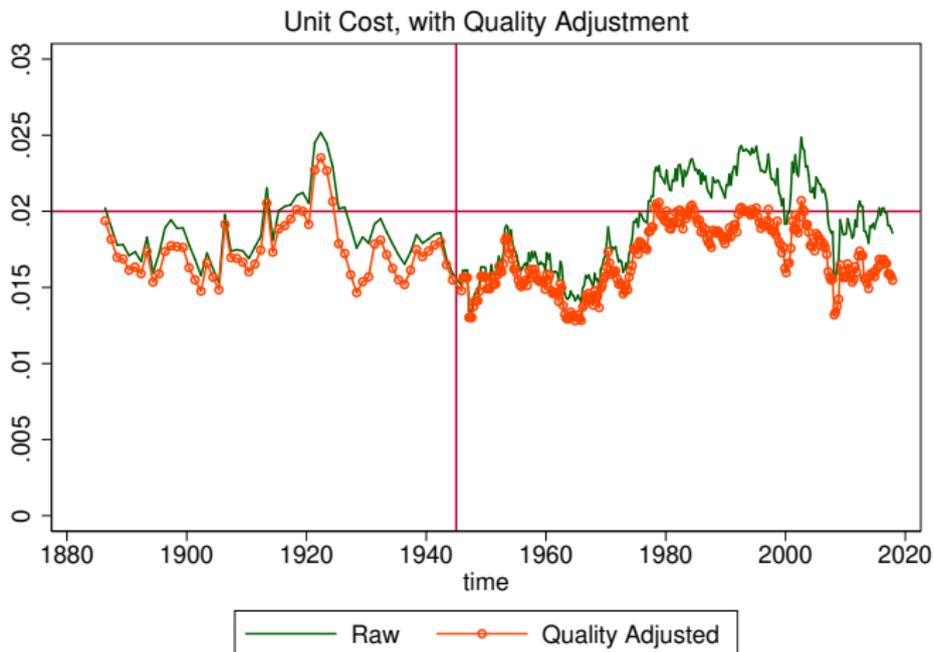
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Fintech: Opportunities & Challenges

1. Competition is (finally!) increasing in the finance industry
2. Will Fintech increase access to asset management services?
Yes.
3. Will Fintech reduce discrimination? Probably yes. Eliminate it? Probably not.

Unit Cost of Finance (US)



Source: Philippon (AER, 2015, updated)

Fintech in Asset Management: A Tale of Two Fixed Costs

- Asset management costs: ϕ per client, Φ to enter.
- Households with wealth $w \sim G(w)$.
 - participation cutoff: $\bar{w} \propto \phi$.
 - firm entry cost: $E[\text{profits}] = \Phi$
- Fintech: high Φ , low ϕ
- **Prop. Democratization** *If fintech entry is profitable then participation increases: $\bar{w}^F < \bar{w}^B$.*
- Key intuition: Rich investors pay for Φ , poor investors benefit from low ϕ

What Fintech Does Well

- Key features of Fintech are consistent with basic model predictions
- Fast and user friendly
 - Fuster et al. (2019) : Fintech 20% faster in processing mortgage applications
 - Buchak et al. (2018): Fintech lenders serve more creditworthy borrowers but charge 14-16 basis points higher interest rates
 - Sahay et al. (2020) find that digital inclusion has increased
 - Good for the young and middle class, not necessarily better for poor & low educated

Machine Learning and Discrimination

- Aigner and Cain (1977), fundamental credit quality, majority / minority groups. Traditional lenders meet face to face: information & bias.
- Fintech use non traditional data and does not meet face to face
 - Bartlett et al. (2018) find that Fintech algorithms discriminate 40% less than face-to-face lenders
 - Learn how to exploit behavioral biases? Ru and Schoar (2017) find that credit cards target less educated people with high hidden fees and shrouded language.

Open Issues

- Regulatory Algos
 - If algos are trained directly on outcome variables, they will learn and avoid human biases
 - But if they are trained to replicate human choices, they will replicate biases and probably increase them
- APIs
 - The growth of fintech also increases the salience of the data ownership issue. A successful open banking ecosystem requires a good protocol for APIs
 - Liability and traceability are key issues

Open Issues: Sandboxing after Wirecard?

- Whistleblowers in the age of social networks and online bullying?

