

# Cash is King: The Role of Financial Infrastructure in Digital Adoption

Discussion by Martin Brown  
(University of St. Gallen)

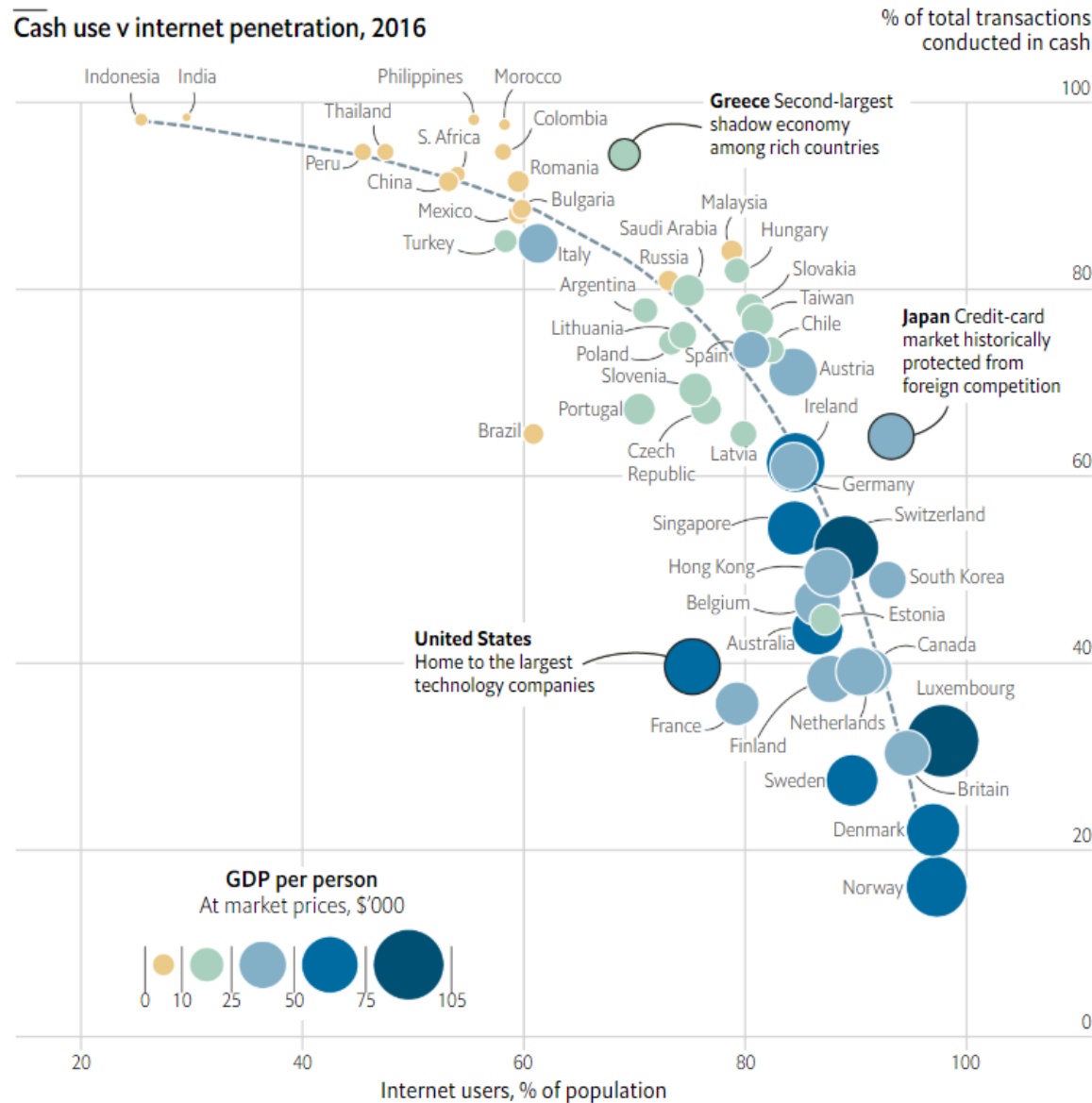
Banking & Payments in the Digital World  
11 September 2020

# Questions, Method, Results

- How does a (temporary) shortage in cash supply affect the use of digital payments ?
- Exploit local variation in exposure to India's 2016 demonetisation → proximity to cash distribution centers
- Localities with stronger cash supply shock see stronger increase in PoS card payments
  - effect is driven by urban areas with strong financial infrastructure and more formal economy

# Cash is still king ... not only in India

Cash use v internet penetration, 2016



August 3, 2019

# (temporary) shock to the cost of using cash ?

WORLD NEWS

## Is coronavirus pushing us towards a cashless society?

 COMMENTS

By **Natalie Huet** & **Trent Murray** • last updated: 03/06/2020



## Contribution ?

- Chodorow-Reich et al. (QJE 2020)
  - cash-supply shock at district level affects digital payments and real economic activity.
- Crouzet et al. (2020)
  - cash-supply shock at district level affects ewallet payments
- Agarwal et al. (2020)
  - cash-intensive consumers increase digital payments and consumption

# Payment behavior depends on payment infrastructure !

- Cash-supply shock spurs digital payments .... but only in urban areas where financial infrastructure is well-developed

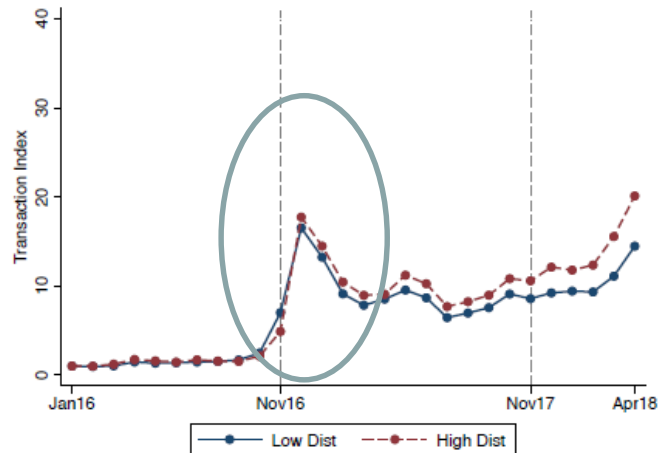


# Payment infrastructure or local economic structure ?

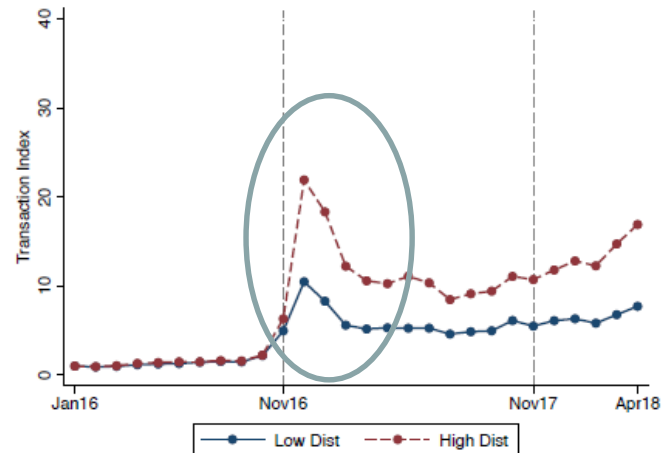
Rural=Informal=Weak Infrastructure

Urban=Formal=Strong Infrastructure

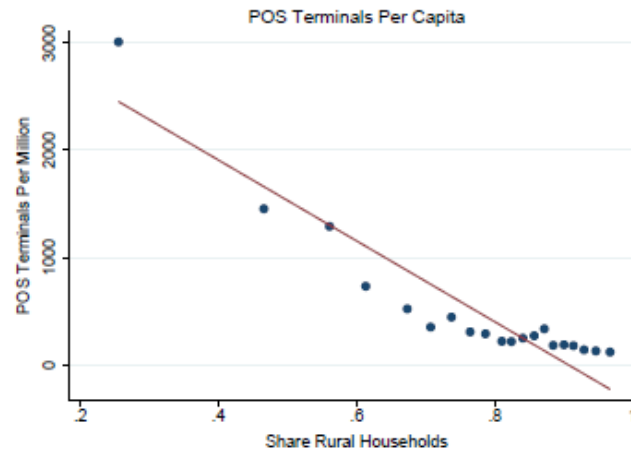
(c) POS Volume: High Rural



(d) POS Volume: Low Rural

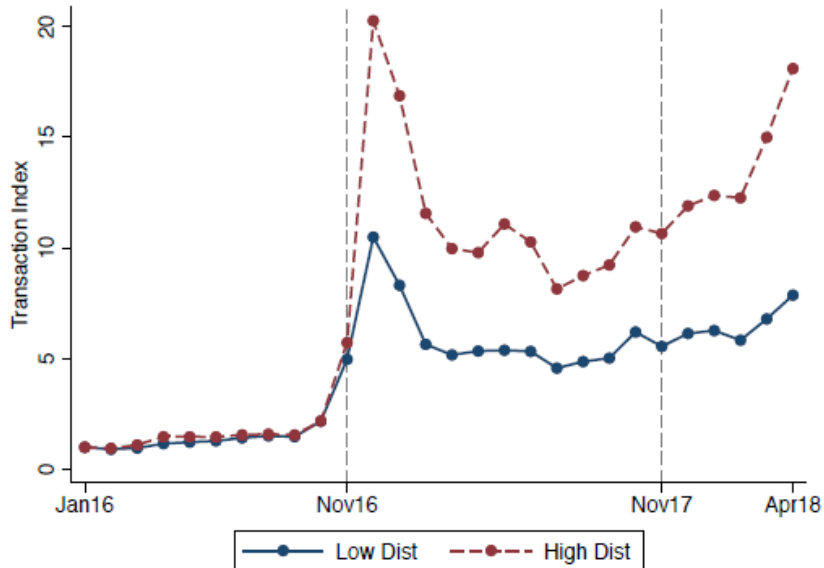


(b) POS Terminals Per Capita

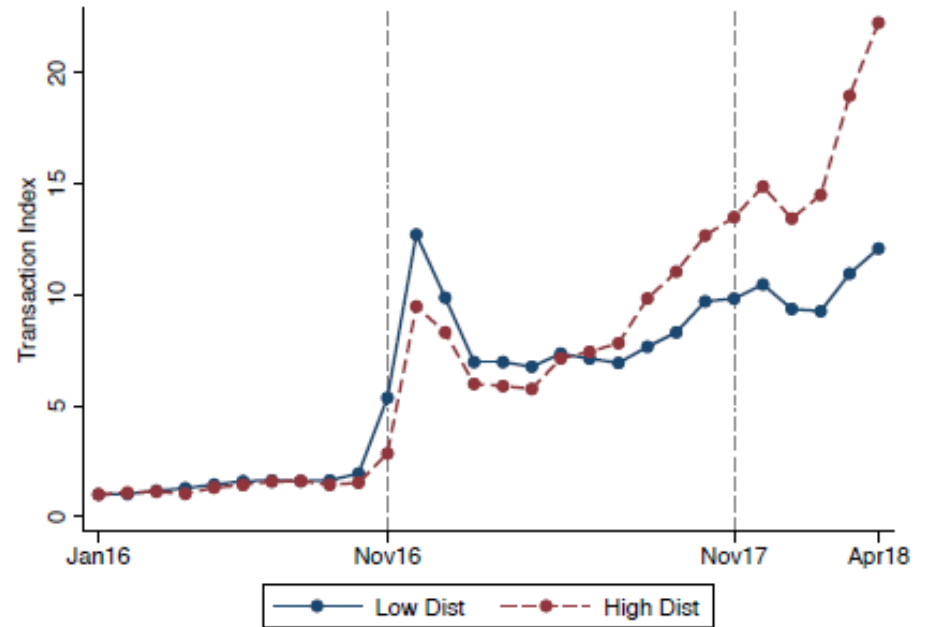


# Volume vs. Transactions

(d) Digital Transactions



(c) Digital Transactions: #



short-term treatment effect is driven by an increase in transaction size .. not by more transactions

long-term treatment effect is driven by more transactions, not larger ones



## Identification: Distance to «currency chest»

### Panel A

	Low Distance	High Distance
Share of Zipcodes in Tier I/Tier II Cities	0.17	0.05
Share of Zipcodes with At Least 1 Bank Branch	0.85	0.80
Number of POS Terminals	54.02	4.65
Number of ATM Terminals	19.90	4.72
Share of Rural Households	0.63	0.81

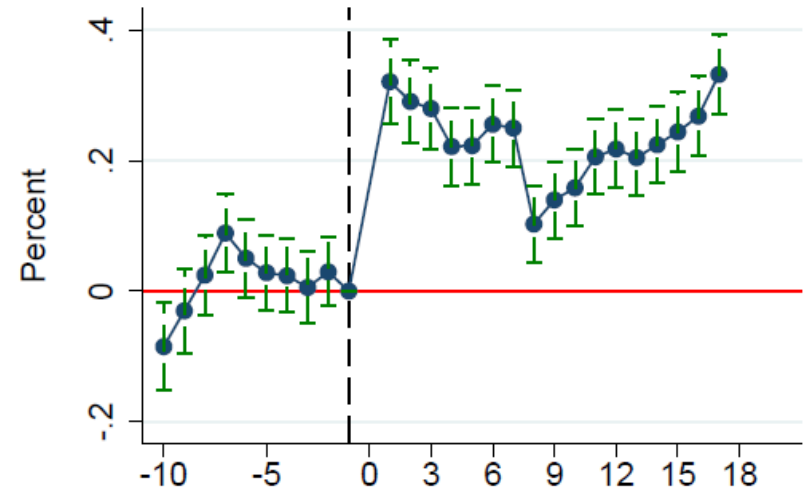
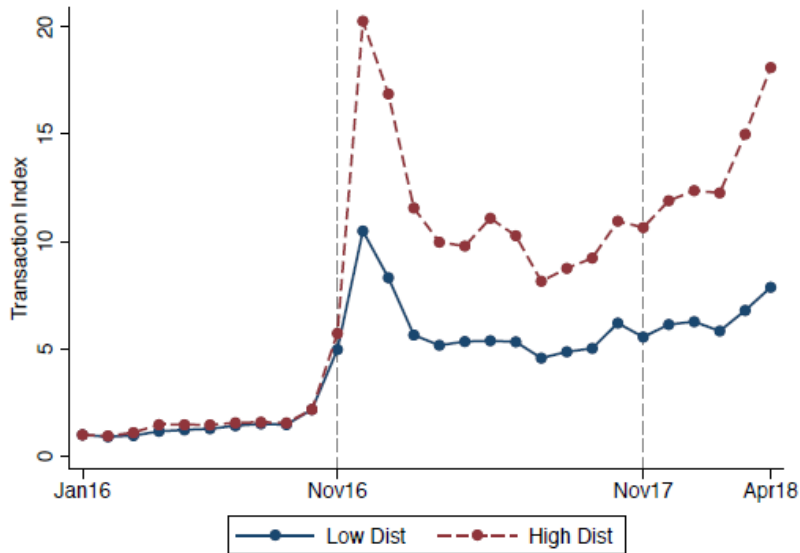
Cash supply shock or different economic structure ??

⇒ Match pincodes on economic variables ?

⇒ Compare adjacent pincodes served by different currency chests ?

# Minor Comment: Exposition of DiD effect

(d) Digital Transactions



“In terms of magnitudes, the volume of transactions from PoS terminals rises in excess of 30 percent in the month of the treatment in pincodes farther from CCs (and thereby more exposed to the shock).”