

Discussion of
Financial Technology Adoption
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What does the paper do?

● Question

- ▶ Effect of exogenous increase in debit card *users* on overall adoption
- ▶ *Prospera* increases the proportion of debit card *holders* by 50%
- ▶ Easier access through ATMs but could potentially also pay by card

● Main Findings

- ▶ Shows increase in POS in treated localities
- ▶ Other people start to adopt debit cards

● Overall assessment

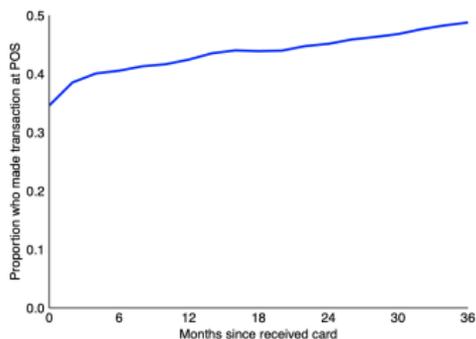
- ▶ Ideal setting, amazing data, well executed
- ▶ Hard to argue with the causality of the effect
- ▶ I need some more convincing about the mechanism
- ▶ Silent on what drives differences in adoption responses

Comment 1: Clarify first-stage effects

How do beneficiaries use their card?

- To observe any effect at all, the debit card rollout needs to increase the use of cards at POS terminals
- Shows that 40% make **at least one POS** transaction
 - ▶ How many? How much?
- Need some evidence that people start carrying around less cash (binding cash-on-hand constraint driving the choice of where to shop)

Figure C.3: Proportion of Prospera cardholders who make transactions at POS terminals



This figure shows the proportion of Prospera cardholders who make **at least one transaction at a POS terminal** using their card during each two-month period. Periods are binned in two-month intervals because the cash transfer is paid every two months. Source: data on 106,449,749 transactions from 961,617 Prospera accounts.

Breaking the cash habit takes time

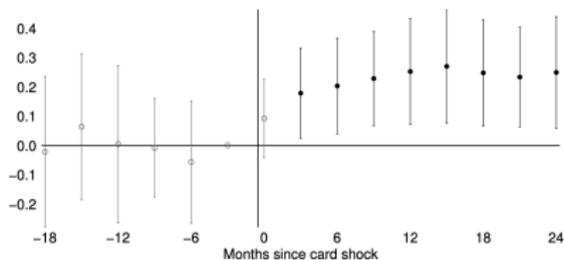
- **Other evidence** from Bachas, Gertler, Higgins and Seira (2020)
 - ▶ 2.2 transactions per two months period (can you rule out cash-back?)
 - ▶ US\$7 per transaction (~ 90% of the subsidy kept in cash)
- The proportion of beneficiaries holding significant positive balance in their bank account increases slowly from 13% to 87% over two years
- First use the card to monitor account balances and build trust that their money is safe

Figure 5: Effect of card shock on log POS terminals (event study estimates)



POS terminals:
+ 3% in 6 months

Figure 6: Spillover effect to other consumers' card adoption (event study estimates)



Other debit card
issuance:
+ 20% in 6 months

- Reaction of users is large and immediate
- Argues that the spillovers are a response to POS adoption by retailers, not word-of-mouth

Breaking the cash habit takes time

- While building trust, word-of-mouth effects about advantages of using ATMs and saving formally more likely than the effect on retailers
- POS adoption may be responding as a consequence of total increase in debit card holders (not the other way around)
- Could also explain why the timing of the spillovers is related to the timing of POS adoption

Breaking the cash habit takes time

What I would like to see

- Is debit card issuance connected to opening of new bank accounts?
 - ▶ Going cashless probably second order factor in decision to open a bank account
- Bansefi data on beneficiaries' bank accounts: proportion of government transfer spent on POS transactions
- Data on the universe of transactions at POS terminals: utilization
- How can you rule out that new debit cards are not issued to retailers that open a bank account to get a POS terminal?

Comment 2: What about Heterogeneity in Adoption?

Where would we expect adoption to be faster?

- Number of ATMs determines cost of accessing (and checking) the account
 - ▶ Mexico's National Banking and Securities Commission (CNBV) has information on ATMs by bank and by municipality
 - ▶ Check how the availability of ATMs affects adoption
- Proportion of shops accepting cards before the shock
 - ▶ I would expect a stronger reaction where shopping cashless is easier
- Does variation in criminality rates matter?
- Help explain differences across municipalities: 146 fast, 21 slow, 88 no effect

Comment 3: Clarify sample selection

Sample size

- Unclear if 961,617 beneficiaries used for the first-stage plot include people who become Prospera beneficiaries for the first time
 - ▶ during rollout period: double shock to beneficiaries (card and income)
 - ▶ after their locality was already treated: higher first-stage due to more POS

In Summary

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- Important question and solid design!
- I suggest the author to:
 - ▶ Reconcile quick response in adoption and slow transition to utilization at POS
 - ▶ Positive response expected for network goods: explore heterogeneity in adoption
 - ▶ Keep data description to essential information about what is used in the analysis: hard to keep track of all data source