# Agarwal, Alok, Ghosh, Ghosh, Piskorski, 2017, "Banking the unbanked, What do 255 Million New Bank Accounts Reveal about Financial Access?"

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Renée Adams

University of New South Wales

# The Intervention

- August 2014: JDY financial inclusion program for all “unbanked” households in India
  - Below Poverty Line Individuals
- Savings account with debit card and mobile banking access
- Financial literacy program
- Overdraft protection linked to usage
- Insurance benefits linked to usage

# What do 255 Million New Bank Accounts Reveal about Financial Access?

Not much?

# P. 5

- *First, we do not observe an economically significant change in the GDP growth rate in more affected areas… it is possible that the overall impact of the program on GDP growth rate will manifest itself over the longer term..*
- *we observe an increase in consumption expenditure...However, this measure should be interpreted with caution since it does not capture the changes in expenditures financed with cash and may simply reflect a relative shift of expenditure activity to JDY accounts*
- *we find some evidence suggesting that the program was associated with an increase in investments, though the data underlying this test is very limited*

# Dupas et al. (2016)

- *We experimentally test the impact of expanding access to basic bank accounts in Uganda, Malawi, and Chile.…Results suggest that policies merely focused on expanding access to basic accounts are unlikely to improve welfare noticeably on average.*

# What are the difficulties?

- Empirical
- Big picture

# Empirical difficulties

- This is NOT a randomized controlled trial!
  - All BLP individuals are eligible
  - No pre-post data possible for “treatment” group
  - The control groups are self-selected:
    - Pre-JDY: they chose to open bank accounts already (they have higher income than JDY)
    - Non-JDY: they have higher income, otherwise would have opened JDY

# Empirical difficulties

- Spillover effects are extremely plausible
  - Non-JDY and Pre-JDY may be “treated” because they can now transact with JDY using accounts
    - Suppose a Non-JDY employs a BLP
      - Before JDY: had to withdraw money to pay
      - After JDY: can pay through the bank
- Difficult to attribute increased account usage among JDY to “learning” rather than expectations by others that JDY’s will transact through banks

# Regression types

$$Balance_{it} = \beta_0 + \beta_1 \text{JDY}_{it} + \beta_2 \text{Age}_{it} + \beta_3 \text{JDY} \times \text{Age} + X_{i,t} + \text{Account Opening Date}_t + \varepsilon_{it}$$

$$y_i = \beta_0 + \beta_1 \text{Exposure Measure}_i + \beta_2 \text{Log(GDP)}_{i,lag} + \varepsilon_i$$

# Big picture questions

- Literature linking financial development to growth, but what aspect of financial development is important?

- Evidence that access to credit matters (e.g. Grameen Bank's lending program)

- What about bank accounts?

# Why bank accounts might matter

- Safekeeping
- Change in behaviour – more saving
- Increase in income – interest (maybe want to save for entrepreneurial reasons)

- Different features may matter for different people

# Why do people not have bank accounts?

- Too costly for them (time, distance)

- Too costly for the banks (help BLP to fill out paperwork, maintain accounts on books with low balances, many more customers…)

# The issues that I am most interested in

- The macro-level is clearly important (does giving everyone more bank accounts lead to GDP growth…), but I don't expect any surprises
  - Identifying that bank accounts per se are important is useful

→ Trace out the benefits to bank accounts

→Trace out the costs

# Trace out benefits to bank accounts

- Can you link specific individual and regional characteristics to specific aspects of bank accounts that might be relevant?
  - For example, in regions with more crime and lower trust, is “safekeeping” more important?
    - Do more people open accounts? Do they seem less concerned about overdraft and insurance?
  - Do women exhibit significantly different behaviour from men?

# Trace out benefits to bank accounts

This table reports the coefficient estimates from the following regression model:

$$Balance_{it} = \beta_0 + \beta_1 \text{JDY}_{it} + \beta_2 \text{Age}_{it} + \beta_3 \text{JDY} \times \text{Age} + X_{i,t} + \text{Account Opening Date}_t + \varepsilon_{it}$$

Where i refer to unique bank account, and t refers to year-month. *Balance* is *Average monthly balance* in column (1), a dummy variable that takes the value 1 for accounts-months with positive balance in columns (2) and a dummy variable that takes the value 1 for accounts-months if at least one transaction was performed by the account holder in column (3). *Age* is the number of months since account opening. JDY is a dummy variable that identifies accounts opened under the JDY program. In these baseline tests, we focus on the periods up to 10 months after the commencement of Jan Dhan Yojna (JDY) (August (2014) to May (2015)). The excluded category is non-JDY accounts as defined in Section III. All variables are defined in detail in appendix A. Proprietary data was obtained from one of the largest banks in India. Account-clustered robust standard errors are reported in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% levels respectively.

| | Average Monthly Balance | Positive Balance Dummy | Positive Usage Dummy |
|---|---|---|---|
| | (1) | (2) | (3) |
| JDY | -2370.967*** | -0.724*** | -0.441*** |
| | (91.073) | (0.002) | (0.002) |
| Age of Account | 46.776** | 0.005*** | -0.008*** |
| | (18.858) | 0.000 | (0.001) |
| Age of Account X JDY | 57.791*** | 0.044*** | 0.011*** |
| | (18.773) | 0.000 | (0.001) |
| N | 6698136 | 6698136 | 6698136 |
| $R^2$ | 0.007 | 0.079 | 0.046 |

# Trace out benefits to bank accounts

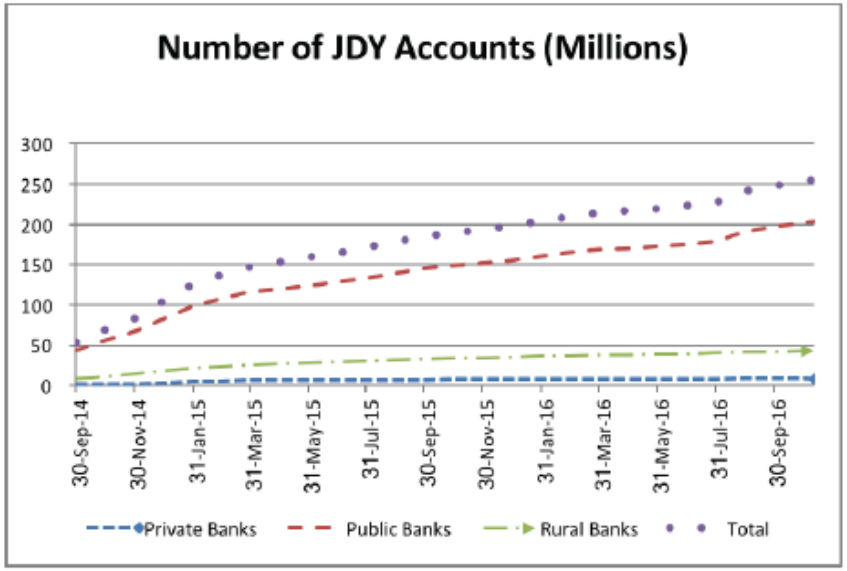
- Any data on financial literacy?
  - A big issue
  - If the data exists, presumably worthy of at least one paper on its own

# Trace out the costs

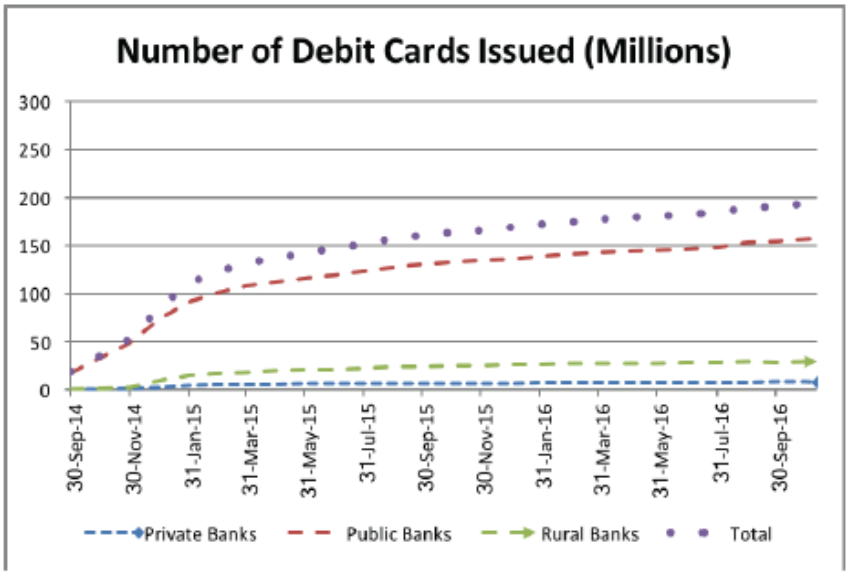
- Banks are also treated!

- How do banks' stocks react to the JDY program?
- Do banks start cutting other programs?
- Can do a diff-in-diff using "similar" banks from other countries as a control?

# Final observations




(a) # Accounts Opened




(b) # Debit Cards Issued

- Dramatic number of account openings suggests huge unfilled demand existed

# Final observations

- To understand how to design effective policy, important to understand
  - a) what the underlying frictions are
  - b) what drives the demand for the treatment

# Final observations

- Regarding a)
  - How large are the costs of opening these accounts?
  - Who should bear the costs? The banks' shareholders? The taxpayers?
- Regarding b)
  - If e.g. people save for entrepreneurial reasons, are there more effective ways of filling that demand?
  - Does this type of program crowd out other programs, e.g. lending programs?

# Final observations

- The authors have the data to say something about these issues
- As far as I am aware, existing RCT studies cannot!
- I look forward to reading next version!