

# Disentangling the Effect of Financial Inclusion on Household Well-Being

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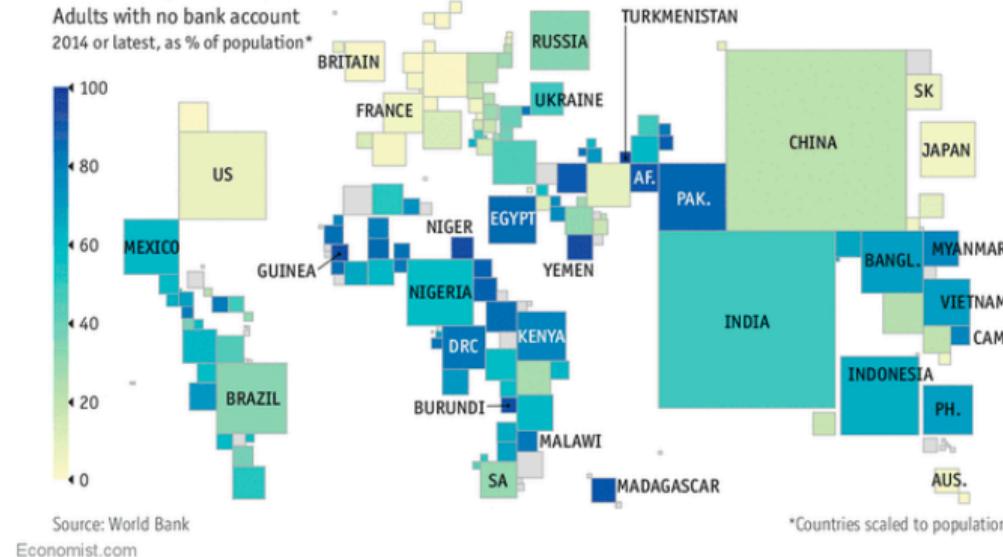
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Discussion by Emily Williams (*and Kunal Sachdeva*)

NFA September 2023

# Underbanking Around the World

## Redrawing the map



## Existing Literature:

- Access to finance leads to more formal employment [Dehejia and Gupta [2022]]
- Bank branch expansion in Brazilian cities increased firm investments, output, employment and wages [Fonseca and Matray [2022]].
- Bank branch expansion in the U.S. increased household wealth by allowing households to borrow more [Célerier and Matray [2019]]
- ...

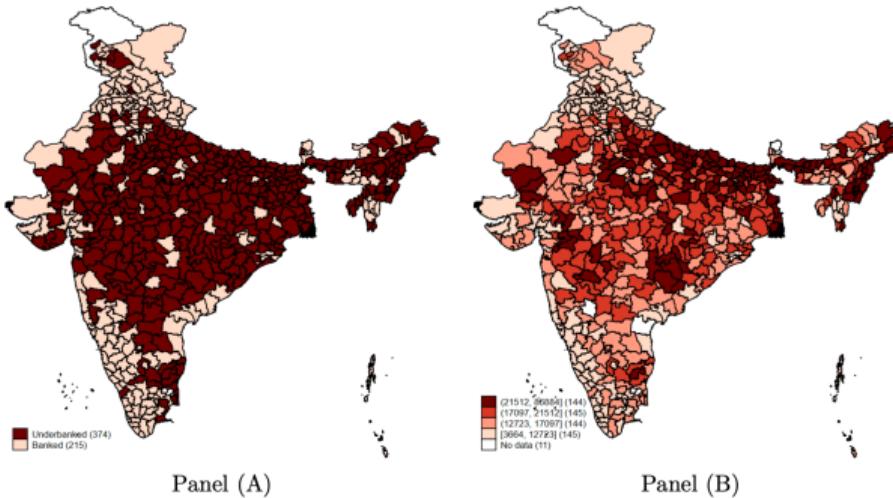
## Paper's Question

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The paper asks related questions:

- How does financial inclusion lead to improvements in household well-being?
- What is the causal impact of bank access on households?
- Does this policy come through the household channel or the firm channel?
  - The household channel → bank access facilitates borrowing and saving.
  - The firm channel → bank access allows constrained firms to borrow more/increase employment.

# Proposed Identification



## RBI bank expansion policy

- The RBI provided incentives for banks to open branches in underbanked areas.
- Location is defined as when the district had a population-to-branch ratio higher than the national average.
- RDD: which essentially compares districts just below the threshold to those just above to obtain a LATE

# Summary of Key Results

## 1. Treated Households

- (1) Consumption, (2) savings, and (3) investments, (4) but without increased borrowing.

## 2. Treated Firms

- (1) Increase borrowing, (2) employment, (3) profits, (4) wages.

## 3. Urban vs. Rural

- Bank access benefits richer, socially advantaged households living in urban areas

*>> Households benefit indirectly from improved employment opportunities*

- Overall, the authors have put together a thoughtfully designed and well-executed empirical strategy.
- Have some suggestions on how to further explore and establish the main findings of the paper.
- Also, some suggestions are on how to place the paper in the existing literature.

# Comment 0 – This RDD that Ticks all the Boxes

Clear treatment effect compliance

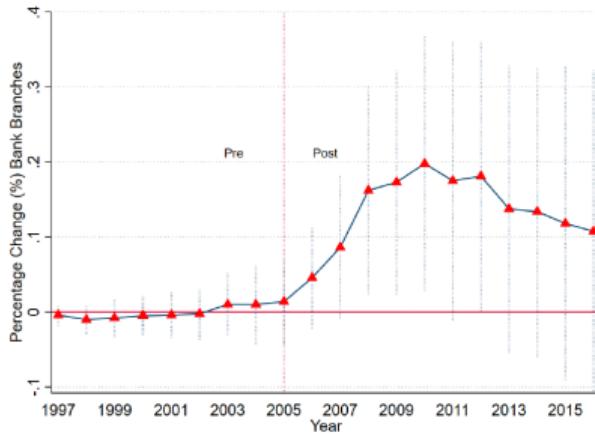


Figure 3A

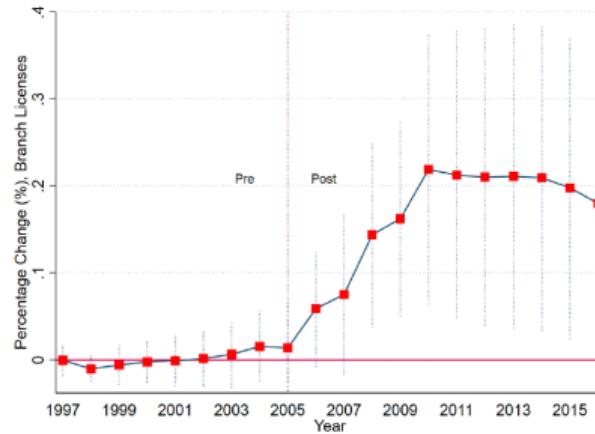
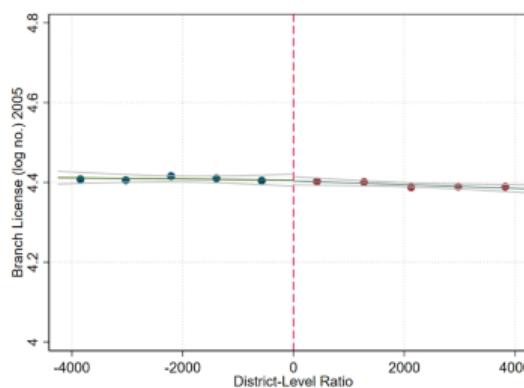
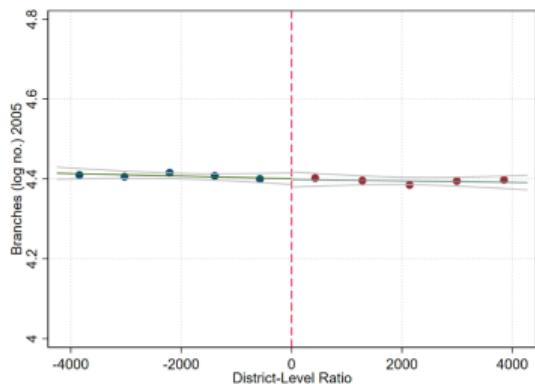


Figure 3B

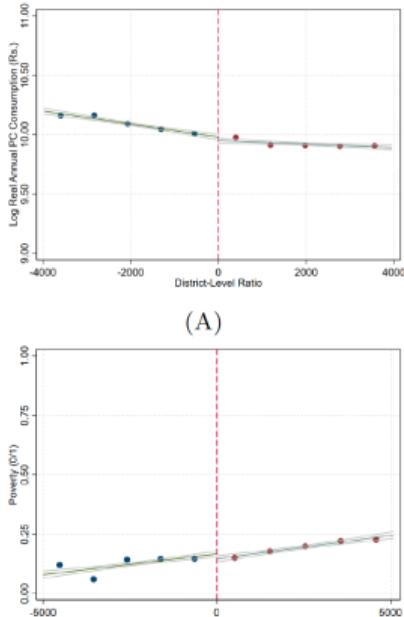
# Comment 0 – This RDD that Ticks all the Boxes

Confidence in treatment effect homogeneity at the threshold

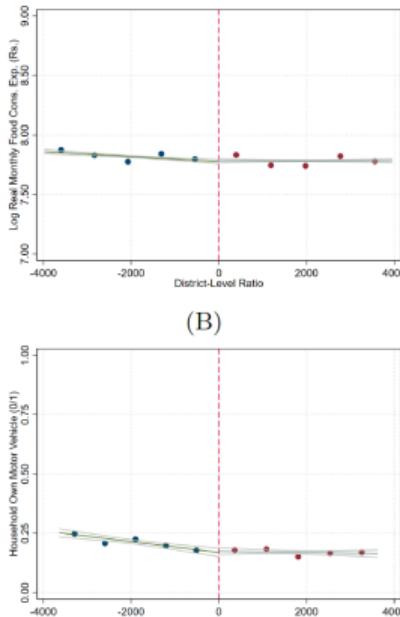


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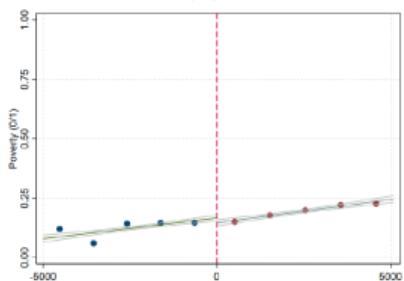
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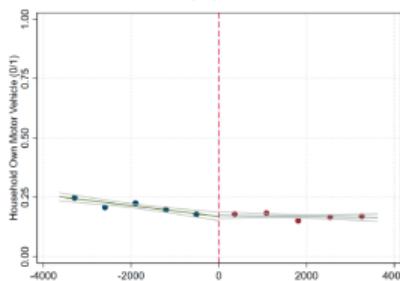
(A)



(B)



(C)



(D)

# Comment 0 – This RDD that Ticks all the Boxes

Decrease in number of loans and bad loans in urban areas

**Table 7:** Bank Credit and Deposit Expansion in Urban versus Rural Areas

|                        | (1)                          | (2)                      | (3)                        | (4)                          |
|------------------------|------------------------------|--------------------------|----------------------------|------------------------------|
|                        | Monthly Interest Loan<br>(%) | Number of Loans<br>(No.) | Unproductive Loan<br>(0/1) | Outstanding HH Debt<br>(Rs.) |
| <b>(A) Urban</b>       |                              |                          |                            |                              |
| Treatment              | -0.975**<br>(0.426)          | -1.039**<br>(0.528)      | -0.149**<br>(0.0633)       | -29,563*<br>(16,002)         |
| Control mean           | 2.30                         | 1.35                     | 0.19                       | 44,768                       |
| Two stage q values     | 0.021                        | 0.048                    | 0.020                      | 0.092                        |
| First stage            | 0.84                         | 0.79                     | 0.80                       | 0.76                         |
| Bandwidth              | 3,743                        | 4,866                    | 5,647                      | 4,178                        |
| Efficient observations | 1,587                        | 6,932                    | 7,686                      | 5,792                        |
| Observations           | 3,099                        | 11,791                   | 11,813                     | 10,692                       |
| <b>(B) Rural</b>       |                              |                          |                            |                              |
| Treatment              | -0.342<br>(0.323)            | -0.115<br>(0.834)        | -0.047<br>(0.0594)         | 13,221<br>(15,241)           |
| Control Mean           | 2.12                         | 1.61                     | 0.22                       | 44,500                       |
| Two stage q values     | 0.187                        | 0.911                    | 0.337                      | 0.301                        |
| First Stage            | 0.70                         | 0.79                     | 0.78                       | 0.75                         |
| Bandwidth              | 3,890                        | 4,984                    | 4,753                      | 4,143                        |
| Efficient observations | 4,949                        | 16,008                   | 15,907                     | 13,013                       |
| Observations           | 9,782                        | 28,151                   | 28,205                     | 25,986                       |

## Comment 0 – This RDD that Ticks all the Boxes

- Bank branch expansion leads to: increased household consumption, food consumption and likelihood of owning a motor vehicle as well as reduced likelihood of being poor.
- Also - a differences in differences set of tests confirms these results.
- The authors then dig into the channel – households borrow less, but households earn more. Evidence also consistent with firms employing more, and borrowing more (but mostly in urban areas).

>> *The paper is very careful, I believe all the results...*

## Comment 1 – Studying Further the Household Demand Channel

- Improved financial well-being is not from increased household access to borrowing.
- Bank branch access leads to improved household well-being through firm access to capital and ultimately increased employment.
- However, we do see an increase in savings, suggesting some demand by households.
  - Are there possible alternative stories going on here?
- What's floating in the background is why the RBI engaged in this policy
  - From reading around, these areas seemed to be unprofitable.
  - I think the banks propose which branches to open and close.

>> *The paper likely needs to be sharper on the household demand channel*

# Comment 1 – Studying Further the Household Demand Channel

*Can the paper do more on the timing dimension?*

## Timing 1: What came first? Firm expansion or household effects?

- For example, bank branch access leads to a better ability to save large amounts, leads to households being more able to open a business and greater employment?

## Timing 2: Did they happen simultaneously?

- If so, will be even trickier to tease out the channel.
- For example, how about seeing how variation in new employment is related to variation in savings through a kind of two-stage regression (kind of like an IV).

## Resources: Were some of the branches/officers moved during the shock?

- If unprofitable, the bank may not staff loan officers.
- Expanding the analysis of table 7

## Wrap up

- This is clearly an important topic → Does bank access improve financial inclusion and through what channels? While there is a lot of literature in this space, we are not 100% sure of what really makes an impact on financial inclusion.
- This paper has a really nice empirical setting → nice quasi-exogenous variation, that the authors have very carefully documented/made use of.
- Teasing out the channel could do with more work, this will also help the authors differentiate themselves from the existing literature.
- It seems like there are ways to push this forward to make it a more complete story.  
GOOD LUCK!