How Do Borrowers Respond to a Debt Moratorium?

Experimental Evidence from Consumer Loans in India

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CFPB Research Conference
December 15, 2022

Disclosures

- The authors have no conflicts of interest to disclose.
- This study received funding from the World Bank.
- The study was registered in the American Economic Association registry for randomized control trials (AEARCTR-0006109) and approved by the Stanford University Institutional Review Board (IRB-55386)
- The opinions expressed in this paper do not necessarily reflect the views of the World Bank, its executive directors, or the countries they represent.

Motivation

- **Debt moratoria that allow borrowers to postpone payments are a popular policy tool to soften the impact of economic downturns**
  - → More than 80 countries enacted debt moratoria for households and businesses in response to Covid pandemic (World Bank, 2022)
  - → In U.S. \$2 tn forbearance for 60 million borrowers (Cherry et al, 2021)
- Moratoria can relax **liquidity constraints**, help households weather transitory shocks, reduce aggregate costs of preventable insolvencies
- By offering flexibility, a lender can **strengthen banking relationships** with its borrowers by showing that they are valued customers
- But moratoria may create **moral hazard** by affecting expectations

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- But moratoria may create **moral hazard** by affecting expectations
- **This paper**: experiment with a large consumer lender in India to study the borrower response to randomized debt moratorium offers

This Paper

- **We use a nationwide field experiment with a large consumer lender in India to study the response to randomized debt moratorium offers**
- **Setting:** Experiment in the context of India's economic policy response to the pandemic. India initiated a large financial support package, which included a nationwide debt moratorium on consumer loans
- **Design:** Treatment conditions vary whether:
  i. Borrowers are offered repayment flexibility (or not)
  ii. Offer is presented as **initiative of the lender** or **initiative of the regulator**
- **Important features**: Natural, real stakes setting, in which we can measure impacts on borrower behavior and expectations

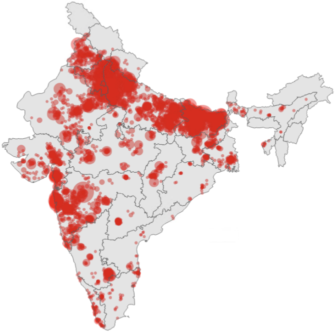
Preview of Results

- **Moral hazard**: None of the moratorium offers in the experiment reduce loan repayment
- **Reciprocity in loan repayment**: Moratorium offers presented as an act of generosity by one's bank *reduce* loan default by 4 ppt (6.9%)
- **Overall credit discipline**: Improved repayment on lender's loan does not come at the expense of worse overall repayment on other loans
- **Banking relationships**: Borrowers who received moratorium offer presented as an initiative of the lender have 10 ppt higher demand for non-credit product offered by the lender in follow-up experiment

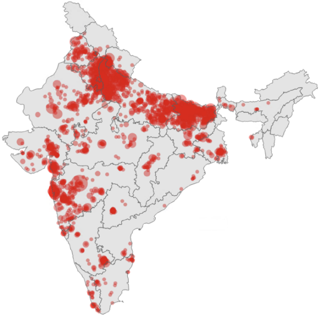
Setting and Sample

- **Experiment with customers of a large Indian consumer lender**
- **Loans**: consumer loans linked to purchase of a mobile phone, currently 12 million loans outstanding
  - Median loan amount of Rp 10,955 (US$150), tenor of 8 months, interest rate of 12% APR – similar to the typical consumer loan in India
- **Sample**: 51,000 borrowers who are 30-60 days late on their monthly payment, of which 9,623 were reached and assigned to treatment
- **Moratorium offer**: three-months payment referral for Rp 350 (US$5) fee
- **Truthful messages**: experiment takes place at a time when banks were encouraged but not required to offer moratorium
- **Treatments**: Late-paying borrowers are randomly and individually assigned to receive a moratorium offer or comparison treatment

Setting and Sample



(a) Total loans



(b) Treated loans

- Loans in estimation sample very similar to the median consumer loan recorded in credit bureau data
- Geographical distribution comparable to lender's overall portfolio

Experimental Treatments

Randomized debt forbearance offers for delinquent borrowers

1. Treatment: "relationship offer"
2. Treatment: "regulator offer"
3. Placebo: friendly call
4. Control: debt collection call

Experimental Treatments

Randomized debt forbearance offers for delinquent borrowers

1. Moratorium: "relationship offer"

   > At [lender name], we care about our customers and truly value your business. We understand that people all over India are facing great hardships due to the current economic situation. Helping our valued customers in these challenging times is our first priority at [lender name]. That is why we are offering you repayment flexibility [...].

2. Moratorium: "regulator offer"
3. Placebo: friendly call
4. Control: debt collection call

Experimental Treatments

Randomized debt forbearance offers for delinquent borrowers

1. Moratorium: "relationship offer"
2. Moratorium: "regulator offer"

> We are extending an offer in accordance with guidelines issued by the Reserve Bank of India to all lending institutions to help customers manage their finances in the current economic crisis. As a result of guidance issued by Reserve Bank of India, we are offering you repayment flexibility comparable to programs offered by other lenders.

3. Placebo: friendly call
4. Control: debt collection call

Experimental Treatments

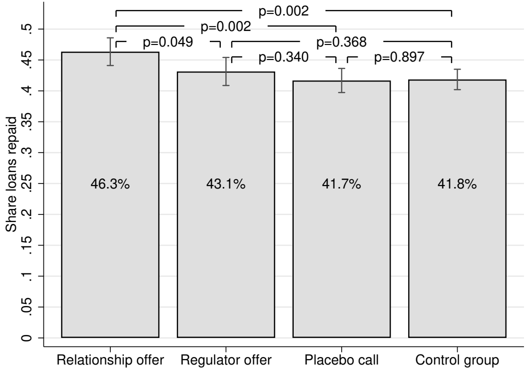
Randomized debt forbearance offers for delinquent borrowers

1. Moratorium: "relationship offer"
2. Moratorium: "regulator offer"
3. Placebo: friendly call

> At [lender name], we care about our customers and truly value your business. We understand that people all over India are facing great hardships due to the current economic situation. [...] If you have any questions or concerns, you can always reach us at our customer service line [phone number].

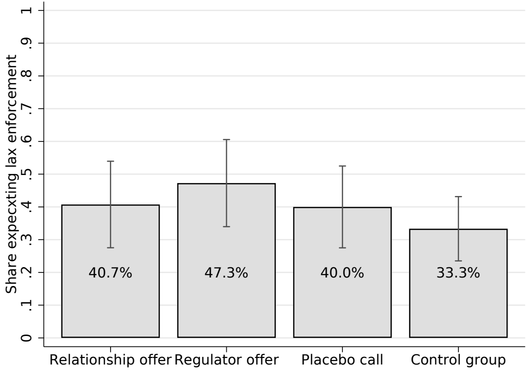
4. Control: debt collection call

Results: Loan Repayment



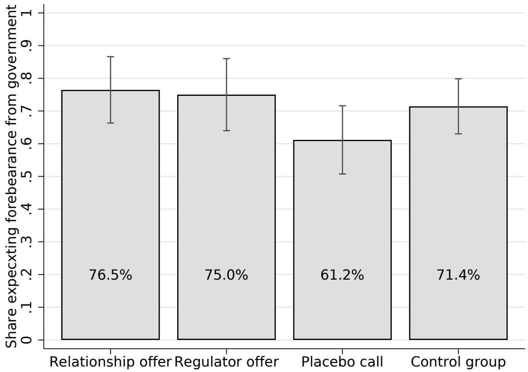
- No evidence of moral hazard
- Neither moratorium offer reduces loan repayment
- Loan default is 4ppt lower in "relationship offer" group

Results: Borrower Expectations



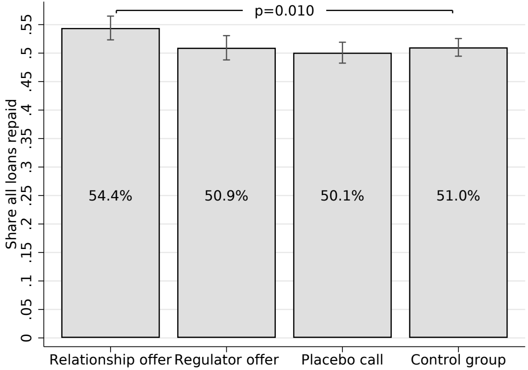
- Consistent with absence of treatment effect on expectations
- Moratorium offers do not cause borrowers to expect **lenient enforcement**

Results: Borrower Expectations



- Consistent with absence of treatment effect on expectations
- Moratorium offers do not cause borrowers to expect **future forbearance**

Results: Repayment of Other Loans



- Improved repayment in the relationship offer condition does not come at cost of reduced repayment of other loans. No negative externalities.
- Borrowers mobilize additional resources to pay down loans covered by moratorium offer

Interpreting the Results

Why do forbearance offers affect repayment?

1. Mechanical explanations: ability to repay
2. Non-strategic sense of reciprocity
3. Strategic reciprocity and signaling motivations

- We can rule out that result reflects changes in *ability to repay*: treatment effect only in relationship offer, not in financially identical regulator offer
- **Preferred interpretation**: Borrowers interpret moratorium offer as an *investment in the relationship* that makes value of the relationship salient; repay to preserve option value of doing business with lender in the future

How Do Borrowers Interpret the Offer?

Question	Mean: Regulator offer (1)	Mean: Relationship offer (2)	Difference (3)	SE (4)	N (5)
[1] *Eligibility for forbearance offers*					
Believes offer given to all customers	0.49	0.39	-0.11	(0.07)	190
Believes offer given to least creditworthy	0.22	0.18	-0.03	(0.06)	190
Believes offer given to most creditworthy	0.29	0.43	0.14**	(0.07)	190
[2] *Does acceptance of the offer signal creditworthiness?*					
Accepting sends no signal	0.17	0.31	0.14**	(0.07)	158
Accepting sends positive signal	0.32	0.21	-0.11	(0.07)	158
Accepting sends negative signal	0.51	0.48	-0.03	(0.08)	158
[3] *What is the main rationale for timely loan repayment?*					
Reason to repay loans is morality	0.15	0.09	-0.06	(0.05)	147
Reason to repay loans is penalties	0.17	0.11	-0.06	(0.06)	147
Reason to repay loans is future loans from lender	0.03	0.21	0.18***	(0.05)	147
Reason to repay loans is credit score	0.65	0.59	-0.06	(0.08)	147

- Respondents in relationship offer believe that offer given to <u>most</u> creditworthy customers, accepting sends no negative signal
- Eligibility for future loans main reason for prompt repayment
- Borrowers respond to value of the offer: strongest repayment response among borrowers for whom forbearance has immediate value

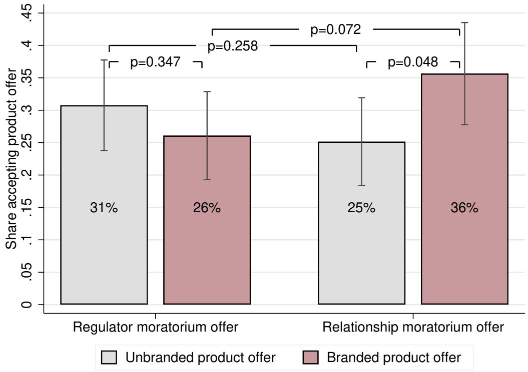
Moratoria and Banking Relationships

- **What is the effect of forbearance offers on banking relationships?**
- Main experiment suggests that repayment flexibility makes value of the relationship salient, generates "strategic reciprocity"
  - How long-lived is this effect?
  - How do forbearance offers affect selection into banking relationships?
  - Are surviving banking relationships high- or low-value for the lender?
- We test this with a separate 'product adoption experiment'

Moratoria and Banking Relationships

- **The product adoption experiment**: Do borrowers who were offered forbearance have higher demand for future interactions with the lender?
- We contacted 1,160 borrowers who had received one of the forbearance offers in the main experiment between 3 and 12 months after treatment, offer them a financial product
- Borrowers receive offer for *non-credit product* sold in one-shot interaction ($N = 632$) or a *personal loan* that requires repeated interaction ($N = 528$)
- Treatments vary whether product is marketed as a product of the lender ("branded") or not ("unbranded")

Test: Product Adoption Experiment



- Borrowers offered a moratorium by the lender have 10 ppt higher demand for non-credit product marketed by the lender
- No meaningful differences in demand for loans

The Product Adoption Experiment

- Moratorium offer presented as an initiative of the lender increases demand for future interactions with the lender
- Effect is detectable several months after borrowers received the moratorium offer
- Effect present only for non-credit product, one-shot transaction. This rules out that demand for future interactions is driven by expectations of lenient enforcement, possibility to renegotiate with the lender
- Suggestive evidence that repayment flexibility fosters higher-value banking relationships in the longer term

Conclusion

- How do borrowers respond to offers of repayment flexibility in a crisis? We examine this using a nationwide experiment in India
- Contrary to widespread assumptions we find no evidence of moral hazard as a result to moratorium offers
- Source of repayment moratorium offers matters: forbearance framed as initiative of the lender *increases* loan repayment
- Moratorium offers strengthen banking relationships, increase demand for future interactions with the lender