# The Cost of Convenience? Transaction Costs, Bargaining Power, and Savings Account Use in Kenya 

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## Savings in the Developing World

- Pervasive lack of access to formal financial services in the developing world: Overall, 75 percent unbanked; Sub-Saharan Africa, 80 percent unbanked (Kendall et al. 2010; Chaia et al. 2009)
- Evidence suggests that access to formal financial services and especially savings accounts increases savings, investment, income, self-reported well-being (Aportela 1999; Bruhn and Love 2009; Burgess and Pande 2005; Dupas and Robinson 2013; Prina 2013; Kast et al. 2013)
- Policy challenge: how to increase access to formal savings?
- (1) increase access to formal savings products, (2) reduce transaction costs on formal products
- Gates Foundation: \$500 million for savings; emphasis on mobile money and reduced fees


## This Paper

- But will reducing transaction costs always increase account use?

1. Time inconsistent preferences: prevent overconsumption in the present (Ashraf et al. 2006; Banerjee and Mullainathan 2010)
2. Informal insurance: reduce transfers to extended family members, community (Baland et al. 2007; Jakiela and Ozier 2012)
3. Intrahousehold issues: manipulate consumption allocations in one's favor (Anderson and Baland 2002; Ashraf 2009; Schaner 2013)

- Two key questions:

1. What is the impact of reducing transaction costs to savings via ATM cards?
2. Is the value of illiquidity/security mediated by the above issues?

## Experimental Context

- Location - Busia, Kenya: border town/commercial center in Western Province
- Partner - Family Bank of Kenya
- A commercial bank with 50 branches throughout Kenya
- Approximately Ksh 7.9 billion (USD 100 million) in customer deposits at end of FY 2009
- Actively targeting low to middle income earners with low fee banking products
- Mwananchi Account: Current account with no monthly fees, operating balance of Ksh 100 (\$1.25), no deposit fees. Withdrawal fees of Ksh 30/62 with/without ATM card. Fee for ATM card - Ksh 300 (\$3.75)
- Target Population - Married couples interested in opening savings accounts and residing in areas near Family Bank's Busia branch (analysis sample: 0.2-7.7 miles away)


## Experimental Protocol

- Group meetings at primary schools; Offer married couples 3 different savings accounts ( 1 joint, 1 individual account for each spouse)
- Randomly assign temporary "promotional" interest rates to these accounts (expire after 6 months, annual rates of $0,4,12$, or $20 \%$ ).
- All 749 couples opened at least one account (1,114 accounts in total)
- Randomly assign ATM cards to open accounts


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- Three data sources:
- Baseline: short survey of demographic and economic characteristics, elicit discount factors for all participants (cash prizes...)
- Administrative data from bank: 3 years of account activity
- Long-run follow up: approximately 3 years after baseline


## Baseline Characteristics

|  | Husbands | Wives | Difference | N |
| :--- | :---: | :---: | :---: | :---: |
| Age | 44.0 | 36.9 | $7.09^{* * *}$ | 1498 |
|  | $[14.1]$ | $[12.1]$ | $(0.677)$ |  |
| Education | 7.89 | 5.82 | $2.06^{* * *}$ | 1491 |
|  | $[3.70]$ | $[3.99]$ | $(0.199)$ |  |
| Income Last Week (Ksh) | 1662 | 814 | $848^{* * *}$ | 1453 |
|  | $[5474]$ | $[1780]$ | $(213)$ |  |
| Participates in ROSCA | 0.486 | 0.665 | $-0.179^{* * *}$ | 1498 |
|  | $[0.500]$ | $[0.472]$ | $(0.025)$ |  |
| Has Bank Account | 0.318 | 0.120 | $0.198^{* * *}$ | 1498 |
|  | $[0.466]$ | $[0.325]$ | $(0.021)$ |  |
| Saves at Home | 0.845 | 0.896 | $-0.051^{* * *}$ | 1496 |
|  | $[0.362]$ | $[0.306]$ | $(0.017)$ |  |
| Saves on Mobile Phone | 0.305 | 0.142 | $0.163^{* * *}$ | 1253 |
|  | $[0.461]$ | $[0.349]$ | $(0.023)$ |  |

Notes: ${ }^{* * *} \mathrm{p} \leq 0.01,{ }^{* *} \mathrm{p} \leq 0.05,{ }^{*} \mathrm{p} \leq 0.1$.

## Randomization Verification

|  | Free ATM Card |  |  |
| :--- | :---: | :---: | :---: |
|  | Husband | Wife | Joint |
| Age | 0.075 | 0.754 | 1.04 |
|  | $(1.56)$ | $(1.61)$ | $(1.40)$ |
| Education | 0.039 | $-0.088^{*}$ | 0.031 |
|  | $(0.038)$ | $(0.046)$ | $(0.037)$ |
| Number Children | 0.214 | -0.163 | -0.006 |
|  | $(0.421)$ | $(0.379)$ | $(0.321)$ |
| Subsistence Farmer | $-0.128^{* * *}$ | -0.063 | 0.000 |
|  | $(0.049)$ | $(0.053)$ | $(0.044)$ |
| Income Last Week | $520^{*}$ | -274 | 22.4 |
|  | $(269)$ | $(311)$ | $(425)$ |

[^0]
## Randomization Verification

|  | Free ATM Card |  |  |
| :---: | :---: | :---: | :---: |
|  | Husband | Wife | Joint |
| Participates in ROSCA | 0.010 | -0.059 | -0.025 |
|  | $(0.048)$ | $(0.050)$ | $(0.042)$ |
| Has Bank Account | 0.022 | 0.002 | -0.018 |
|  | $(0.046)$ | $(0.044)$ | $(0.033)$ |
| Has SACCO Account | 0.023 | -0.001 | -0.012 |
|  | $(0.025)$ | $(0.023)$ | $(0.015)$ |
| Saves at Home | 0.031 | 0.004 | 0.020 |
|  | $(0.031)$ | $(0.036)$ | $(0.024)$ |
| Saves on Mobile Phone | 0.055 | -0.072 | -0.005 |
|  | $(0.052)$ | $(0.047)$ | $(0.034)$ |
| ${ }^{* * *} \mathrm{p} \leq 0.01,{ }^{* *} \mathrm{p} \leq 0.05,{ }^{*} \mathrm{p} \leq 0.1$ |  |  |  |

- Note: Women's cash prize receipt negatively, significantly correlated with ATM card for wife $\rightarrow$ always control for cash prize receipt


## Overview of Account Use

|  | All | Joint | Men | Women |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Extensive Margin: All Open Accounts (No ATM Cards) |  |  |  |  |  |  |  |  |
| Active - First 6 Months | 0.222 | 0.265 | 0.192 | 0.186 |  |  |  |  |
|  | $[0.416]$ | $[0.442]$ | $[0.395]$ | $[0.390]$ |  |  |  |  |
| Active - Year 3 | 0.073 | 0.068 | 0.082 | 0.070 |  |  |  |  |
|  | $[0.260]$ | $[0.252]$ | $[0.275]$ | $[0.256]$ |  |  |  |  |

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| Intensive Margin: All Accounts Active in First 6 Months | $($ No ATM Cards) |  |  |  |
| Number Deposits | 9.62 | 8.65 | 12.6 | 7.89 |
|  | $[21.4]$ | $[22.0]$ | $[26.0]$ | $[12.4]$ |
| Number Withdrawals | 8.51 | 6.23 | 14.9 | 5.20 |
|  | $[22.9]$ | $[18.2]$ | $[34.0]$ | $[9.67]$ |
| Total Amount Deposited | 46,853 | 36,247 | 63,058 | 47,732 |
|  | $[159,820]$ | $[117,332]$ | $[155,375]$ | $[224,295]$ |
| Total Amount Withdrawn | 43,766 | 32,095 | 60,791 | 45,694 |
|  | $[155,761]$ | $[111,069]$ | $[153,869]$ | $[219,562]$ |
| N (Open Accounts) | 878 | 381 | 255 | 242 |

## Overall, Cards Increase Account Use

$$
y_{a c}=\beta_{0}+\beta_{1} \text { freeatm }_{a c}+x_{a c}^{\prime} \delta+\epsilon_{a c}
$$

|  | Has ATM | Active <br> Chort-Run | Active <br> Long-Run | Number <br> Deposits |
| :--- | :---: | :---: | :---: | :---: |
| Free ATM | $0.861^{* * *}$ | 0.030 | $0.041^{*}$ | $1.08^{* *}$ |
|  | $(0.013)$ | $(0.032)$ | $(0.023)$ | $(0.485)$ |
| DV Mean (No ATM) | 0.094 | 0.197 | 0.067 | 2.38 |
| N | 1114 | 1114 | 1114 | 1114 |


|  | Number <br> Withdrawals | Total <br> Deposits | Total <br> Withdrawals | Acct. Use <br> Index |
| :--- | :---: | :---: | :---: | :---: |
| Free ATM | $1.67^{* * *}$ | $8753^{*}$ | $8273^{*}$ | $0.177^{* *}$ |
|  | $(0.657)$ | $(5193)$ | $(4500)$ | $(0.078)$ |
| DV Mean (No ATM) | 1.52 | 9881 | 8342 | 0.000 |
| N | 1114 | 1114 | 1114 | 1114 |

Notes: SEs clustered at couple level. ${ }^{* * *} \mathrm{p} \leq 0.01,{ }^{* *} \mathrm{p} \leq 0.05,{ }^{*} \mathrm{p} \leq 0.1$.
Deposit and withdrawals measures top-coded at 99th percentile.

## But Impact Varies by Account Type

## Outcome is Standardized Account Use



## Impact for Women Significantly Differs from Men, Joint

|  | Has ATM <br> Card | Active <br> Short-Run | Active <br> Long-Run | Number <br> Deposits |
| :--- | :---: | :---: | :---: | :---: |
| Free ATM | $0.842^{* * *}$ | 0.053 | $0.056^{* *}$ | $1.66^{* * *}$ |
| Free ATM $\times$ Wife | $0.069^{* * *}$ | -0.085 | -0.051 | $-2.07^{* * *}$ |
|  | $(0.024)$ | $(0.064)$ | $(0.046)$ | $(0.830)$ |
| DV Mean (No ATM) | 0.094 | 0.197 | 0.067 | 2.38 |
| N | 1114 | 1114 | 1114 | 1114 |
|  |  |  |  |  |
|  | Number | Total | Total | Acct. Use |
|  | Withdrawals | Deposits | Withdrawals | Index |
| Free ATM | $2.31^{* * *}$ | $12540^{*}$ | $11655^{*}$ | $0.256^{* * *}$ |
| Free ATM $\times$ Wife | $(0.870)$ | $(6968)$ | $(6019)$ | $(0.101)$ |
|  | $-2.30^{* *}$ | $-13558^{*}$ | $-12106^{*}$ | $-0.284^{* *}$ |
| DV Mean (No ATM) | $(1.05)$ | $(7874)$ | $(6924)$ | $(0.131)$ |
| N | 1.52 | 9881 | 8342 | 0.000 |
|  | 1114 | 1114 | 1114 | 1114 |

Notes: SEs clustered at couple level. ${ }^{* * *} \mathrm{p} \leq 0.01,{ }^{* *} \mathrm{p} \leq 0.05,{ }^{*} \mathrm{p} \leq 0.1$.
Deposit and withdrawals measures top-coded at 99th percentile.

## Investigating the Gender Gap

- Idea 1: Are women more subject to requests from others?
- This explanation seems unlikely given experimental protocol
 preferences or self-control? (Fafchamps et al. 2012) Possible. though men and women exhibit similar rates of preference reversals at baseline

Idea 4: Do women not respond because they are less financially literate?

Big gender differences in education

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- Idea 2: On average, women have less household bargaining power. What if they fear their spouse will be able to access the account or force a withdrawal when given an ATM card?

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- Idea 3: Do women have greater problems with time-inconsistent preferences or self-control? (Fafchamps et al. 2012)
- Possible, though men and women exhibit similar rates of preference reversals at baseline



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- Idea 3: Do women have greater problems with time-inconsistent preferences or self-control? (Fafchamps et al. 2012)
- Possible, though men and women exhibit similar rates of preference reversals at baseline
- Idea 4: Do women not respond because they are less financially literate?
- Big gender differences in education


## Investigating the Gender Gap

- How to test competing hypotheses? Check for heterogeneity in treatment effects (for both genders) by
- Proxied bargaining power
- Self-control (time inconsistency at baseline)
- Literacy (results using education are very similar)
- Question: how to proxy bargaining power?


## Bargaining Power: Available Proxies

1. Proxy based on differences in demographic/economic characteristics between spouses

- Age, years education, literacy, income
- Standardize each outcome in the population
- Measure of individual $i$ 's relative bargaining power:

$$
\text { power }_{i c}=\frac{1}{4} \sum_{x \in X}\left(x_{i c}-x_{-i c}\right)
$$

2. Self-reported decision making power

- I do most of the saving
- I decide about how to spend money


## Cross-Check: Experimental Elicitation at Endline

- Couples asked to divide Ksh 700 endowment between husband and wife
- Each individual makes allocation in private (spouse s's choices: $x_{s}$, $\left.x_{s}^{-s}=700-x_{s}^{s}\right)$
- Couple reunited to decide jointly $\left(x_{J}^{s}, x_{J}^{-s}=700-x_{J}^{s}\right)$
- Decisions incentivized, but in such a way that private choices are not revealed


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- Decisions incentivized, but in such a way that private choices are not revealed
- Individual utility: $U\left(x_{s}^{s}\right)=\ln \left(x_{s}^{s}\right)+\gamma_{s} \ln \left(700-x_{s}^{s}\right)$
- Collective utility: $\mu U\left(x_{h}^{h}\right)+(1-\mu) U\left(x_{w}^{w}\right)$



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- Collective utility: $\mu U\left(x_{h}^{h}\right)+(1-\mu) U\left(x_{w}^{w}\right)$
- Estimate $\hat{\mu}$ ("experimental proxy"); not identified for 22 percent of couples whose public and private choices coincide


## Correlations Between Proxies



## First Take: Bargaining Power Reconciles Gender Gap

## Standardized Account Use, No Cash Prizes

- Define wife to be "relatively advantaged" if male bargaining power below median (otherwise husband relatively advantaged)
A. Relatively Advantaged Spouses



## First Take: Bargaining Power Reconciles Gender Gap

 Standardized Account Use, No Cash Prizes- Define wife to be "relatively advantaged" if male bargaining power below median (otherwise husband relatively advantaged)
B. Relatively Disadvantaged Spouses



## Regression Horserace

$$
y_{a c}=\beta_{0}+\beta_{1} a t m_{a c}+(a t m \times h e t)_{a c}^{\prime} \delta+h e t_{a c}^{\prime} \lambda+x_{a c}^{\prime} \gamma+\varepsilon_{a c}
$$

| Free ATM | -0.127 |
| :--- | :---: |
|  | $(0.094)$ |
| Free ATM $\times$ Advantaged | $0.391^{* *}$ |
|  | $(0.192)$ |
| Free ATM $\times$ Literate |  |
|  |  |
| Free ATM $\times$ Not Hyperbolic |  |
|  |  |
| DV Mean | -0.007 |
| N | 628 |
| Addl. controls | None |
| Notes: SEs clustered at couple level. ${ }^{* * *} \mathrm{p} \leq 0.01,{ }^{* *} \mathrm{p} \leq 0.05,{ }^{*} \mathrm{p} \leq 0.1$ |  |

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y_{a c}=\beta_{0}+\beta_{1} a t m_{a c}+(a t m \times h e t)_{a c}^{\prime} \delta+h e t_{a c}^{\prime} \lambda+x_{a c}^{\prime} \gamma+\varepsilon_{a c}
$$

| Free ATM | -0.127 | -0.145 |
| :--- | :---: | :---: |
|  | $(0.094)$ | $(0.096)$ |
| Free ATM $\times$ Advantaged | $0.391^{* *}$ | $0.433^{* *}$ |
|  | $(0.192)$ | $(0.197)$ |
| Free ATM $\times$ Literate |  | -0.198 |
|  |  | $(0.175)$ |
| Free ATM $\times$ Not Hyperbolic |  | 0.147 |
|  |  | $(0.179)$ |
| DV Mean | -0.007 | -0.007 |
| N | 628 | 628 |
| Addl. controls | None | None |
| Notes: SEs clustered at couple level. ${ }^{* * *} \mathrm{p} \leq 0.01,{ }^{* *} \mathrm{p} \leq 0.05,{ }^{*} \mathrm{p} \leq 0.1$ |  |  |

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$$
y_{a c}=\beta_{0}+\beta_{1} a t m_{a c}+(a t m \times h e t)_{a c}^{\prime} \delta+h e t_{a c}^{\prime} \lambda+x_{a c}^{\prime} \gamma+\varepsilon_{a c}
$$

| Free ATM | -0.127 | -0.145 | -0.148 |
| :--- | :---: | :---: | :---: |
|  | $(0.094)$ | $(0.096)$ | $(0.112)$ |
| Free ATM $\times$ Advantaged | $0.391^{* *}$ | $0.433^{* *}$ | $0.326^{* *}$ |
|  | $(0.192)$ | $(0.197)$ | $(0.162)$ |
| Free ATM $\times$ Literate |  | -0.198 | 0.025 |
|  |  | $(0.175)$ | $(0.352)$ |
| Free ATM $\times$ Not Hyperbolic |  | 0.147 | 0.040 |
|  |  | $(0.179)$ | $(0.198)$ |
| DV Mean | -0.007 | -0.007 | -0.007 |
| N | 628 | 628 | 628 |
| Addl. controls | None | None | + Demo |
| Notes: SEs clustered at couple level. ${ }^{* * *} \mathrm{p} \leq 0.01,{ }^{* *} \mathrm{p} \leq 0.05,{ }^{*} \mathrm{p} \leq 0.1$ |  |  |  |

## Regression Horserace

$$
y_{a c}=\beta_{0}+\beta_{1} a t m_{a c}+(a t m \times h e t)_{a c}^{\prime} \delta+h e t_{a c}^{\prime} \lambda+x_{a c}^{\prime} \gamma+\varepsilon_{a c}
$$

| Free ATM | -0.127 | -0.145 | -0.148 | $-0.261^{*}$ |
| :--- | :---: | :---: | :---: | :---: |
|  | $(0.094)$ | $(0.096)$ | $(0.112)$ | $(0.137)$ |
| Free ATM $\times$ Advantaged | $0.391^{* *}$ | $0.433^{* *}$ | $0.326^{* *}$ | $0.369^{* *}$ |
|  | $(0.192)$ | $(0.197)$ | $(0.162)$ | $(0.174)$ |
| Free ATM $\times$ Literate |  | -0.198 | 0.025 | 0.072 |
|  |  | $(0.175)$ | $(0.352)$ | $(0.334)$ |
| Free ATM $\times$ Not Hyperbolic |  | 0.147 | 0.040 | 0.023 |
|  |  | $(0.179)$ | $(0.198)$ | $(0.203)$ |
| DV Mean | -0.007 | -0.007 | -0.007 | -0.007 |
| N | 628 | 628 | 628 | 628 |
| Addl. controls | None | None | + Demo | + Savings |
| Notes: SEs clustered at couple level. ${ }^{* * *} \mathrm{p} \leq 0.01,{ }^{* *} \mathrm{p} \leq 0.05,{ }^{2} \mathrm{p} \leq 0.1$ |  |  |  |  |

## Results by Gender: Men

| Results for Men |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Free ATM | -0.072 | -0.067 | -0.079 | -0.167 |
|  | $(0.151)$ | $(0.161)$ | $(0.196)$ | $(0.250)$ |
| Free ATM $\times$ Advantaged | 0.504 | 0.485 | 0.178 | 0.196 |
|  | $(0.340)$ | $(0.351)$ | $(0.316)$ | $(0.339)$ |
| Free ATM $\times$ Literate |  | -0.007 | 0.258 | 0.401 |
|  |  | $(0.242)$ | $(0.644)$ | $(0.588)$ |
| Free ATM $\times$ Not Hyperbolic |  | -0.002 | 0.048 | 0.032 |
|  |  | $(0.353)$ | $(0.407)$ | $(0.400)$ |
| DV Mean | 0.050 | 0.050 | 0.050 | 0.050 |
| N | 319 | 319 | 319 | 319 |
| Addl. controls | None | None | + Demo | + Savings |
| Note: SEs clustered at couple level. ${ }^{* * * \mathrm{p} \leq 0.01,}{ }^{* * \mathrm{p} \leq 0.05,}{ }^{* \mathrm{p} \leq 0.1 .}$ |  |  |  |  |

## Results by Gender: Women

| Results for Women |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Free ATM | $-0.207^{*}$ | $-0.250^{* * *}$ | $-0.300^{* * *}$ | $-0.344^{* * *}$ |
| Free ATM $\times$ Advantaged | $(0.120)$ | $(0.102)$ | $(0.126)$ | $(0.137)$ |
|  | $(0.165)$ | $(0.150)$ | $(0.173)$ | $(0.188)$ |
| Free ATM $\times$ Literate |  | -0.253 | -0.040 | -0.061 |
|  |  | $(0.204)$ | $(0.372)$ | $(0.379)$ |
| Free ATM $\times$ Not Hyperbolic |  | 0.257 | 0.120 | 0.152 |
|  |  | $(0.175)$ | $(0.224)$ | $(0.210)$ |
| DV Mean | -0.066 | -0.066 | -0.066 | -0.066 |
| N | 309 | 309 | 309 | 309 |
| Addl. controls | None | None | + Demo | +Savings |

Note: SEs clustered at couple level. ${ }^{* * *}{ }_{\mathrm{p}} \leq 0.01,{ }^{*}{ }_{\mathrm{p}} \leq 0.05,{ }^{*} \mathrm{p} \leq 0.1$.

## Issue: Correlation with Unobservables

- Results robust to controlling for range of demographic characteristics (and their interactions with the ATM treatment)
- But is the bargaining power proxy correlated with some other characteristic that makes individuals differentially sensitive to improved account terms?
- If yes, then treatment effect with respect to account interest rates should mirror ATM treatment effects
- But interest rates do not change security of the account, so if it's really about bargaining power, should NOT see similar heterogeneous treatment effects


## Robustness: Heterogeneous Interest Rate Responses

$$
y_{a c}=\beta_{0}+\beta_{1} \text { inthigh }_{a c}+\beta_{2}(\text { inthigh } \times a d v)_{a c}+\beta_{3} a d v_{c}+x_{a c}^{\prime} \delta+\epsilon_{a c}
$$

| High Interest | $0.116^{* * *}$ | $0.134^{* * *}$ | $0.137^{* * *}$ | $0.127^{* * *}$ |
| :---: | :---: | :---: | :---: | :---: |
| High Interest $\times$ Advantaged | $(0.041)$ | $(0.042)$ | $(0.045)$ | $(0.050)$ |
|  | $(0.065)$ | $(0.068)$ | $(0.066)$ | $(0.067)$ |
| High Interest $\times$ Literate |  | $0.124^{* *}$ | 0.062 | 0.083 |
|  |  | $(0.059)$ | $(0.130)$ | $(0.124)$ |
| High Interest $\times$ Not |  | -0.015 | -0.007 | -0.019 |
| Quasi-Hyperbolic |  | $(0.068)$ | $(0.078)$ | $(0.078)$ |
| DV Mean | -0.180 | -0.180 | -0.180 | -0.180 |
| N | 1498 | 1498 | 1498 | 1498 |
| Baseline Controls? | None | None | + Demo | + Savings |
| Note: SEs clustered at couple level. ${ }^{* * * \mathrm{p} \leq 0.01,}{ }^{* * \mathrm{p} \leq 0.05,}{ }^{*} \mathrm{p} \leq 0.1$. |  |  |  |  |

## Conclusion

- Joint and men's accounts respond robustly to treatment, increase account use by $\approx 0.18$ standard deviation units
- Women have zero-to-negative response to treatment
- Gender difference in treatment effect may be driven by differences in bargaining power in the household
- Implications: reducing costs to saving may not be enough to increase use of formal financial services, especially if cost reductions make accounts less secure. Needs accounts that explicitly account for external pressures placed on savers.


## APPENDIX SLIDES

## Impact of Interest Subsidies on Account Use

|  | Has ATM <br> Card | Active <br> Short-Run | Active <br> Long-Run | Number <br> Deposits |
| :--- | :---: | :---: | :---: | :---: |
| 4 Percent Interest | 0.032 | 0.015 | -0.002 | $0.551^{* * *}$ |
|  | $(0.021)$ | $(0.016)$ | $(0.010)$ | $(0.217)$ |
| 12 Percent Interest | $0.036^{*}$ | $0.049^{* * *}$ | 0.019 | $0.830^{* * *}$ |
|  | $(0.021)$ | $(0.017)$ | $(0.011)$ | $(0.231)$ |
| 20 Percent Interest | $0.091^{* * *}$ | $0.086^{* * *}$ | $0.040^{* * *}$ | $1.49^{* * *}$ |
|  | $(0.023)$ | $(0.018)$ | $(0.013)$ | $(0.293)$ |
| DV Mean (No Int.) | 0.095 | 0.040 | 0.015 | 0.330 |
| N | 2247 | 2247 | 2247 | 2247 |
|  |  |  |  |  |
|  | Number | Total | Total | Acct. Use |
|  | Withdrawals | Deposits | Withdrawals | Index |
| 4 Percent Interest | 0.110 | 756 | 726 | 0.031 |
|  | $(0.272)$ | $(1945)$ | $(1659)$ | $(0.033)$ |
| 12 Percent Interest | 0.308 | 1992 | 1679 | $0.081^{* *}$ |
|  | $(0.287)$ | $(2141)$ | $(1814)$ | $(0.035)$ |
| 20 Percent Interest | $1.02^{* * *}$ | $6128^{* *}$ | $5624^{* *}$ | $0.178^{* * *}$ |
|  | $(0.364)$ | $(2793)$ | $(2432)$ | $(0.045)$ |
| DV Mean (No ATM) | 0.355 | 2357 | 1959 | -0.245 |
| N | 2247 | 2247 | 2247 | 2247 |
| Notes: SEs clustered at couple level. ${ }^{* * *} \mathrm{p} \leq 0.01,{ }^{* * \mathrm{p} \leq 0.05,}{ }^{*} \mathrm{p} \leq 0.1$. |  |  |  |  |

## Robustness: Alternative Proxies of Bargaining Power

|  | $\begin{gathered} \quad \text { Main } \\ >\text { Median } \end{gathered}$ | $\begin{gathered} \hline \text { Main } \\ >0 \end{gathered}$ | Main Level | Main + <br> Savings | Principal Components | P.C. + <br> Savings | Spending I Decide | I Mostly Save |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men's Accounts |  |  |  |  |  |  |  |  |
| Free ATM | $\begin{gathered} -0.079 \\ (0.196) \end{gathered}$ | $\begin{gathered} 0.357 \\ (0.298) \end{gathered}$ | $\begin{gathered} 0.133 \\ (0.168) \end{gathered}$ | $\begin{gathered} -0.065 \\ (0.223) \end{gathered}$ | $\begin{gathered} 0.198 \\ (0.199) \end{gathered}$ | $\begin{gathered} 0.118 \\ (0.226) \end{gathered}$ | $\begin{gathered} 0.120 \\ (0.199) \end{gathered}$ | $\begin{gathered} 0.051 \\ (0.179) \end{gathered}$ |
| Free ATM $\times$ Advantaged | $\begin{gathered} 0.178 \\ (0.316) \end{gathered}$ | $\begin{aligned} & -0.429 \\ & (0.334) \end{aligned}$ | $\begin{aligned} & -0.384 \\ & (0.386) \end{aligned}$ | $\begin{gathered} 0.130 \\ (0.367) \end{gathered}$ | $\begin{aligned} & -0.499 \\ & (0.342) \end{aligned}$ | $\begin{gathered} -0.311 \\ (0.340) \end{gathered}$ | $\begin{aligned} & -0.191 \\ & (0.329) \end{aligned}$ | $\begin{aligned} & -0.065 \\ & (0.396) \end{aligned}$ |
| DV Mean | 0.050 | 0.050 | 0.050 | 0.050 | 0.050 | 0.050 | 0.050 | 0.050 |
| N | 319 | 319 | 319 | 319 | 319 | 319 | 319 | 319 |
| Women's Accounts |  |  |  |  |  |  |  |  |
| Free ATM | $\begin{gathered} -0.300 * * * \\ (0.126) \end{gathered}$ | $\begin{gathered} -0.145 \\ (0.096) \end{gathered}$ | $\begin{gathered} 0.092 \\ (0.128) \end{gathered}$ | $\begin{gathered} -0.320^{* * *} \\ (0.129) \end{gathered}$ | $\begin{aligned} & -0.315^{*} \\ & (0.161) \end{aligned}$ | $\begin{gathered} -0.359 * * \\ (0.171) \end{gathered}$ | $\begin{gathered} -0.041 \\ (0.103) \end{gathered}$ | $\begin{gathered} -0.053 \\ (0.115) \end{gathered}$ |
| Free ATM $\times$ Advantaged | $\begin{gathered} 0.482^{* * *} \\ (0.173) \end{gathered}$ | $\begin{aligned} & 0.401^{*} \\ & (0.240) \end{aligned}$ | $\begin{aligned} & 0.481^{* *} \\ & (0.242) \end{aligned}$ | $\begin{gathered} 0.469 * * * \\ (0.179) \end{gathered}$ | $\begin{aligned} & 0.424^{* *} \\ & (0.203) \end{aligned}$ | $\begin{aligned} & 0.432^{* *} \\ & (0.220) \end{aligned}$ | $\begin{gathered} 0.083 \\ (0.195) \end{gathered}$ | $\begin{gathered} 0.050 \\ (0.141) \end{gathered}$ |
| DV Mean | -0.066 | -0.066 | -0.066 | -0.066 | -0.066 | -0.066 | -0.066 | -0.066 |
| N | 309 | 309 | 309 | 309 | 309 | 309 | 309 | 309 |

Notes: SEs clustered at couple level. ${ }^{* * *} \mathrm{p} \leq 0.01,{ }^{* *} \mathrm{p} \leq 0.05,{ }^{*} \mathrm{p} \leq 0.1$. All regressions include demographic control set.

## Impacts on Long-Run Outcomes

|  | Level Value |  |  |  | Top-coded: 99\% |  |  | Hypersine |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Has } \\ \text { Account } \end{gathered}$ | Bank Savings | Total Savings | Monthly Income | $\begin{gathered} \text { Bank } \\ \text { Savings } \end{gathered}$ | Total Savings | Monthly Income | Total <br> Savings | Monthly Income |
| A. Pooled Impact of ATM Cards |  |  |  |  |  |  |  |  |  |
| Any ATM Card | $\begin{gathered} 0.025 \\ (0.029) \end{gathered}$ | $\begin{gathered} 119 \\ (574) \end{gathered}$ | $\begin{gathered} 11423^{* *} \\ (5331) \end{gathered}$ | $\begin{gathered} 255 \\ (657) \end{gathered}$ | $\begin{gathered} 53.5 \\ (533) \end{gathered}$ | $\begin{gathered} 2796 \\ (3025) \end{gathered}$ | $\begin{gathered} 413 \\ (539) \end{gathered}$ | $\begin{gathered} 0.110 \\ (0.146) \end{gathered}$ | $\begin{aligned} & 0.231^{* *} \\ & (0.105) \end{aligned}$ |
| B. Impact of ATM Card by Type |  |  |  |  |  |  |  |  |  |
| Joint ATM Card | $\begin{gathered} 0.026 \\ (0.039) \end{gathered}$ | $\begin{gathered} 853 \\ (785) \end{gathered}$ | $\begin{gathered} 9458 \\ (6224) \end{gathered}$ | $\begin{gathered} 672 \\ (873) \end{gathered}$ | $\begin{gathered} 644 \\ (700) \end{gathered}$ | $\begin{gathered} 4179 \\ (3873) \end{gathered}$ | $\begin{gathered} 738 \\ (741) \end{gathered}$ | $\begin{gathered} 0.209 \\ (0.186) \end{gathered}$ | $\begin{aligned} & 0.285^{* *} \\ & (0.124) \end{aligned}$ |
| Husband's ATM Card | $\begin{aligned} & 0.085^{*} \\ & (0.049) \end{aligned}$ | $\begin{gathered} 131 \\ (930) \end{gathered}$ | $\begin{gathered} 15534 \\ (10587) \end{gathered}$ | $\begin{gathered} 661 \\ (1159) \end{gathered}$ | $\begin{gathered} 240 \\ (938) \end{gathered}$ | $\begin{gathered} 3260 \\ (5429) \end{gathered}$ | $\begin{gathered} 401 \\ (841) \end{gathered}$ | $\begin{gathered} 0.213 \\ (0.225) \end{gathered}$ | $\begin{gathered} 0.409 * * * \\ (0.160) \end{gathered}$ |
| Wife's ATM Card | $\begin{aligned} & -0.075 \\ & (0.050) \end{aligned}$ | $\begin{aligned} & -1081 \\ & (794) \end{aligned}$ | $\begin{gathered} 1271 \\ (9482) \end{gathered}$ | $\begin{gathered} 45.5 \\ (1053) \end{gathered}$ | $\begin{aligned} & -1010 \\ & (777) \end{aligned}$ | $\begin{gathered} 3.33 \\ (5450) \end{gathered}$ | $\begin{gathered} 164 \\ (839) \end{gathered}$ | $\begin{aligned} & -0.177 \\ & (0.269) \end{aligned}$ | $\begin{aligned} & -0.030 \\ & (0.203) \end{aligned}$ |
| C. Impact by Card Type - Is Impact for Wives Different? |  |  |  |  |  |  |  |  |  |
| Joint or Husband's ATM Card | $\begin{aligned} & 0.058^{*} \\ & (0.031) \end{aligned}$ | $\begin{gathered} 703 \\ (621) \end{gathered}$ | $\begin{gathered} 12449 * * \\ (5907) \end{gathered}$ | $\begin{gathered} 829 \\ (716) \end{gathered}$ | $\begin{gathered} 601 \\ (579) \end{gathered}$ | $\begin{gathered} 3832 \\ (3260) \end{gathered}$ | $\begin{gathered} 759 \\ (577) \end{gathered}$ | $\begin{gathered} 0.211 \\ (0.148) \end{gathered}$ | $\begin{gathered} 0.369 * * * \\ (0.100) \end{gathered}$ |
| Wife's ATM Card | $\begin{aligned} & -0.072 \\ & (0.049) \end{aligned}$ | $\begin{aligned} & -1128 \\ & (798) \end{aligned}$ | $\begin{gathered} 1533 \\ (9435) \end{gathered}$ | $\begin{gathered} 27.9 \\ (1067) \end{gathered}$ | $\begin{aligned} & -1041 \\ & (780) \end{aligned}$ | $\begin{gathered} -71.6 \\ (5510) \end{gathered}$ | $\begin{gathered} 129 \\ (842) \end{gathered}$ | $\begin{aligned} & -0.178 \\ & (0.267) \end{aligned}$ | $\begin{gathered} -0.028 \\ (0.202) \end{gathered}$ |
| F Test - Joint/Husband=Wife | 4.69** | 3.47* | 0.868 | 0.476 | 2.98* | 0.398 | 0.427 | 1.48 | 2.92* |
|  | \{0.031\} | \{0.063\} | \{0.352\} | \{0.491\} | \{0.085 \} | \{0.528\} | \{0.514\} | \{0.223\} | \{0.088\} |
| DV Mean (No ATM) | 0.685 | 1957 | 33449 | 6500 | 1905 | 29991 | 5805 | 10.2 | 8.50 |
| N | 1345 | 1174 | 1027 | 1215 | 1174 | 1027 | 1215 | 1027 | 1215 |


[^0]:    ${ }^{* * *} \mathrm{p} \leq 0.01,{ }^{* *} \mathrm{p} \leq 0.05,{ }^{*} \mathrm{p} \leq 0.1$.

