

Status Quo Bias and Usage of Financial Products: Field Evidence from Malawi

Xavier Giné and Jessica Goldberg*

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Abstract

Fifty-three percent of subjects who owned a high-fee account with a local bank in Malawi did not switch to a new, lower-fee account when given the choice. In contrast, holders of high-fee accounts who had been induced to make more transactions in the past were significantly more likely to adopt the new, cheaper account. This preference for the status quo can have large welfare effects: account maintenance fees were high enough to drain average account balances in a matter of months. Experience using financial products can thus mitigate behavioral anomalies and improve financial decision-making.

Keywords: Savings, status quo bias, field experiment, experience.

JEL Codes: D14, D91, C93, G21, O16.

*Giné: Development Research Group, World Bank, xgine@worldbank.org. Goldberg: University of Maryland, goldberg@econ.umd.edu. We gratefully acknowledge support from the Development Research Group at the World Bank. Ryan Malitz contributed to the design and implementation in the initial stages of the project. We thank Maryumbo Munyenyembe for their outstanding field management; Sai Luo and Bernardo Ribeiro for superb research assistance; and Emily Breza, Francesco Cecchi, Oscar Mitnik, Lore Vandewalle, Bilal Zia, and seminar and conference participants for comments. This project was reviewed and approved by the Innovations for Poverty Action IRB, protocol numbers 12March-001 and 451.13January-005. The views expressed in this paper are those of the authors and should not be attributed to the World Bank, its executive directors, or the countries they represent.

1 Introduction

Consumers often incur costs when switching to a new product (Klemperer, 1995). For example, clients of a cellular service provider typically pay a one-time activation fee, and users of one computer operating system face learning costs when switching to another system.

These pecuniary and effort costs can be so large (Burnham et al., 2003; Madrian and Shea, 2001) that they outweigh the benefits from switching. In this case, the preference for the status quo can be rational (Samuelson and Zeckhauser, 1988). Even when these costs are small, however, the presence of other psychological costs may also favor inaction (Kahneman et al., 1990). If individuals assess gains and losses relative to a reference point that coincides with their endowment or status quo, then this status quo bias could be explained by loss aversion—the idea that losses loom larger than equally sized gains (Kahneman and Tversky, 1979; Tversky and Kahneman, 1991).

The status quo bias has been documented both in the lab and in the field. Samuelson and Zeckhauser (1988) finds status quo bias using a wide range of hypothetical questions about job security, the color of cars, financial investments, and policy issues. They also present evidence from the choice of medical plans by Harvard employees, finding that new employees are more likely to choose a newly-introduced medical plan compared to existing employees even though they all have the opportunity to make or update their selection at a minimal cost every year. Similarly, a status quo bias is found in consumer demand for electricity (Hartman et al., 1991) and more relevant to our context, in retirement savings (Madrian and Shea, 2001) and savings-linked accounts (Blumenstock et al., 2018).

When such inaction cannot be rationally explained by weighting the costs and benefits of a decision, then it is driven by a behavioral anomaly that contradicts the assumption that preferences are independent from endowments. In this case, inaction may reduce welfare as individuals stick to a sub-optimal consumption bundle. It is thus important to ask whether experience can mitigate these anomalies by reducing the uncertainty that participants face when making decisions.

Madrian and Shea (2001) study the enrollment of employees of a large firm in 401(k) plans before and after the firm implements automatic enrollment for new employees. They find that while participation is significantly higher under automatic enrollment, tenure and income, which are proxies for financial literacy, are also correlated with participation in the 401(k) plan. Since participation requires learning about the plan features and evaluating the various savings options, employees that are financially literate are better able to navigate these complex decisions.¹ Indeed, Samuelson and Zeckhauser (1988); Tversky and Shafir

¹Another manifestation of the status quo bias is the reluctance to part with an endowment, a phenomenon that Thaler (1980) called the “endowment effect”. Engelmann and Hollard (2010) explain such effect by

(1992) and Shafir et al. (1993) all suggest that the preference for the status quo may be greater when decisions are more complex (see also Iyengar and Lepper, 2000).

In this paper, we present a sample of savings account holders with the choice of keeping their existing account but incurring high fees, or opening a new account with lower fees, and transferring the balance. These subjects come from 14 villages in southern Malawi and, in 2012 as part of a previous study, they were offered fully subsidized basic savings accounts with a local bank. In 2015, some of those who opened accounts were randomly chosen to receive a MK 25,000 windfall payment (USD 160 using 2015 PPP exchange rate. See Brune et al., 2017 for details). This transfer did not have persistent effects on savings or spending, but it did increase the number of transactions that subjects made at the bank branch. The random allocation of these transfers thus created exogenous variation in the experience that subjects had in using their accounts.

In 2016, the previous research project concluded and subsidies for monthly account maintenance fees were discontinued. Starting in May 2016, individuals had to pay a monthly maintenance fee of MK 400 (USD 2 using 2016 PPP exchange rate) that had previously been covered by research funds paid directly to the bank. Concurrently but independently, the bank introduced a new account, called the Pafupi account. This account had no monthly fee but charged a withdrawal fee of MK 150 per transaction. In addition, the Pafupi account required the purchase of an ATM card for MK 1,300. Based on the number of transactions that subjects had made between 2012 and May 2016, the Pafupi accounts were less expensive than the original (basic) accounts for everyone in the sample, if their usage patterns continued and they planned to keep the account open for at least another four months.

In March and April 2016, the research team visited study subjects at home and asked that they come to the bank branch to make a decision about their savings accounts. Subjects could keep their existing basic account and start paying monthly fees, could close their basic account, or could transfer their balances to a Pafupi account with the purchase of an ATM card. While the Pafupi account was cheaper than the basic account given their past usage, the choice was presented in a neutral way.

The home visits introduced randomized variation in two dimensions of the decision. First, we varied the amount of a payment for coming to the branch, which was used to lower

distinguishing between choice and trade uncertainty. Choice uncertainty refers to the trader's uncertainty about the features of the item being traded or about any preferences toward it, while trade uncertainty concerns the process of trading itself, as individuals may overestimate the cost or risk associated with a market transaction. In their exchange experiments, Engelmann and Hollard (2010) use well-known items and find that forcing subjects to trade during an initial stage eliminates the endowment effect in a later stage of trading. In their context, choice uncertainty is irrelevant because individuals are familiar with the items traded and have well-defined preferences over them. But when the item in question is a new bank account, a product with attributes that are difficult to understand (Giné and Mazer, 2018), choice uncertainty may be a contributing factor to the status quo bias.

switching costs and encourage individuals to actively make a decision. Second, we varied the timing of when subjects were asked to visit the branch: some were asked to come within the week, and others were asked to come only after a two-week delay. This manipulation assessed whether people would fail to show up at the branch due to forgetfulness or higher costs of paying attention. Finally, when they did visit the branch, some respondents received an unexpected extra payment, which provided a test of whether liquidity constraints prevented individuals from purchasing the ATM card required to open the Pafupi account.

This design maintains parallels to important features of laboratory experiments. First, the cost of switching items in laboratory experiments is zero. In our setting, there are time and monetary costs associated with visiting the branch, but these are equal regardless of which account is chosen, and randomly offset for most customers. There are extra up-front costs associated with opening Pafupi accounts; again, these are randomly offset for some customers. Second, subjects in laboratory experiments are explicitly prompted about whether they would like to switch items. In our setting, enumerators present the different options regarding account ownership and prompt individuals to choose among them.

Our setting also has important advantages over laboratory experiments that may suffer from potential experimental confounds. Plott and Zeiler (2005, 2007) argue that when endowing subjects with an actual object such as a mug by using visual or physical cues, subjects may view the object as a gift and be unwilling to trade it, thus leading to a spurious, demand-induced endowment effect. In our context, it is unlikely that subjects viewed the basic accounts as a gift in 2016, because four years previously they had only received technical assistance in order to open them. In addition, individuals had a longer time period—ranging from two days to two weeks—to consider their potential decisions regarding the account. In contrast, subjects in laboratory or survey experiments typically consider these choices for no more than a few minutes.

We find evidence consistent with status quo bias. Overall, 51 percent of subjects did not adopt Pafupi accounts, even though the fee structure made those accounts less expensive for every single customer in the sample given past usage patterns. Additionally, switching to the Pafupi account was related to previous account usage. Fifty-five percent of subjects who had received transfers in 2015 that induced them to use their old accounts in the following months switched to Pafupi accounts in 2016, compared to 37 percent of subjects who had not received transfers. We show that transfer-induced usage of the basic account increased trust in the bank and knowledge of the features of the basic account. These results suggest that experience with the basic account helped individuals learn about the features of the account, enabling subjects to compare new and old accounts and switch to the cheaper one

when given the opportunity to do so.²

These results contribute to the literature about the impact of the status quo on financial decisions (Samuelson and Zeckhauser, 1988; Madrian and Shea, 2001). In addition, they are related to the literature studying the extent to which experience can attenuate behavioral anomalies (List, 2003, 2004; Feng and Seasholes, 2005; Dhar and Zhu, 2006; Gächter et al., 2009; Greenwood and Nagel, 2009; Seru et al., 2010; Engelmann and Hollard, 2010; List, 2011; Anagol et al., forthcoming). Most papers in this literature, however, study the endowment effect and focus on experience gained by transacting in the market rather than by gaining familiarity with the product. In studying trading rates of sports memorabilia in an actual marketplace, List (2003) observed an inefficiently low number of trades by novice traders. In contrast, the endowment effect disappeared among experienced traders. List (2004) used a similar sample of novice and experienced traders in the sports card market and found that, when randomly presented with mugs and chocolate bars of equivalent value, novice traders exchanged their endowment far less often than experienced traders, indicating that previous market interaction and arbitrage opportunities might have taught experienced traders to treat the dispossession of a good as an opportunity cost rather than as a loss. One problem with List (2003, 2004) is that market experience is endogenous, so it is unclear whether experienced traders are unique, or if novice traders can learn to behave like experienced traders if they are induced to gain that experience. List (2011) exogenously induces a random sample of subjects to gain experience making trades in a sports card market, and finds that collectors who are induced to trade as part of the experiment are more likely to trade subsequently. In contrast, we study the role of experience in a one-time decision regarding the choice of a savings account.

As governments the world over try to broaden financial inclusion by providing transfers directly into the accounts of previously unbanked beneficiaries, and firms digitize wage payments, there is a concern that individuals may not be familiar with the accounts or may end up contracting products that are not well-suited to their needs (see, e.g., Gross and Souleles, 2002; Choi et al., 2011; Duarte and Hastings, 2012; Hastings et al., 2012; Agarwal et al., 2013, 2015; Giné and Mazer, 2018 and Campbell et al., 2011; DellaVigna, 2009 for reviews). Some advocate financial literacy interventions, but financial education alone is often ineffective in changing financial decision making (see Cole et al., 2011 and Miller et al., 2014; Hastings et al., 2013 for reviews). Our results suggest that making payments directly into beneficiaries' accounts rather than disbursing cash can encourage individuals to actively use

²As further evidence of the status quo bias, we use a sample of households from the 2012 household listing that had not been offered a subsidized account in the previous study and present them with the same choice of accounts. We find that 56 percent of this sample opened the Pafupi account and nobody opened the more expensive basic account. Among new account-openers, everyone recognized the Pafupi account as the better option.

and gain experience with financial products (Bachas et al., 2019). This familiarity can lead to improved financial decision making.

The remainder of the paper is organized as follows. Sections 2 and 3 describe the experimental design and data, respectively. Section 4 describes the empirical strategy, reports results, and explores the role of account usage using IV specifications as a possible mechanism that explains the results. Section 5 provides a discussion of alternative explanations for the results, and concludes.

2 Experimental Design

In July 2012, we randomly selected and interviewed 872 households from 14 villages surrounding the Mulanje market in southern Malawi.³ All these villages are located within six kilometers of the local NBS branch.⁴ These households were offered assistance with opening a basic savings account at NBS plus subsidies to cover the required minimum balance of MK 500 (USD 2.72 using the 2016 PPP exchange rate) and the MK 400 monthly maintenance fees. Subsidies were paid directly to the bank each month so that fees were not deducted from customers' balances. The minimum balance was enforced in the sense that the bank would deny any withdrawal that would bring the balance below MK 500. This means that the account balance was always equal to or higher than MK 500. Because the bank did not charge for transactions, the basic account offered in the study was free to customers.⁵ The take-up rate for these free accounts was 85 percent.

Of the 742 households that opened subsidized accounts, 600 were randomly chosen in April 2015 to participate in another field experiment that induced account usage. The experiment varied whether households received a large transfer (MK 25,000 or about USD 160 using the 2015 PPP exchange rate) and whether this transfer was made in cash or directly deposited into subjects' accounts (see Brune et al., 2017). The transfer increased the number of transactions that participants made at NBS. Account holders who received transfers had the same number of bank transactions in the month preceding the transfer as those who did not receive the transfer. However, transfer recipients made significantly more transactions with their accounts after receiving the transfers, even excluding initial withdrawals of the amount transferred. The increased usage began in the month following the transfers and

³Malawi is a country in eastern Africa with relatively low levels of financial inclusion. According to the 2017 Global Findex database (Demirgüç-Kunt et al., 2018), 34% of adults have bank accounts or mobile money but only 9% have formal savings.

⁴NBS Bank, formerly known as New Building Society, was established in 1964 and obtained a commercial banking license in 2004. It is one of the 10 commercial banks operating in Malawi, with a network of 36 branches throughout the country.

⁵Similar to other basic savings accounts in Malawi, the account did not pay interest. Because the inflation rate was above 20% throughout the study, the real rate of return was negative.

persisted, with a cumulative average of 1.5 more transactions 12 months after the transfers. Thus, the transfer treatment provides random variation in subjects' experience using their bank accounts.

In March and April 2016, we implemented an experiment that removed the subsidy for the recurring monthly maintenance fees of the basic account and offered subjects the options of paying fees themselves, closing their accounts, or transferring their balances to a new type of account without monthly maintenance fees (the Pafupi account). Of the 742 households that opened the subsidized accounts in 2012, we were able to contact and visit 594 households in 2016. During the one-on-one home visits, an enumerator explained that after more than three years (since July 2012), the original research about account ownership was ending and the subsidies would stop as of May 2016. The following three options were presented:

1. Households could keep their existing (basic) savings accounts. In this case, monthly maintenance fees of MK 400 would be deducted from the balance by NBS beginning in May 2016. If account balances fell below the minimum balance of MK 500, NBS would suspend the accounts. We used examples to show households how their balances would change each month if no additional deposits were made. This is the *default option* for current account holders at the time of the experiment.
2. Households could close their accounts and receive the full account balance, including the minimum balance of MK 500 initially deposited by the research team, in cash. In this case, however, households would no longer have NBS accounts. Accounts closed by the end of April 2016 would not accrue any monthly charges.
3. Households could transfer their balance to a Pafupi account without monthly fees but with a withdrawal fee of MK 150. To open a Pafupi account, customers would be required to purchase an ATM card for MK 1,300 (USD 7 using the 2016 PPP exchange rate).

Enumerators presented this choice using a neutral frame. Appendix Table A1 shows the features of the basic and Pafupi accounts before and after May 2016. Because NBS required households to visit the branch in order to close the account or transfer the balance to a Pafupi account, the field team did not ask households to make a decision during the home visit. Rather, they asked subjects to come to the branch by the end of May 2016 to report their decision and complete the necessary paperwork.

All households received the same information but we experimentally varied two conditions related to this decision. First, we took seriously the concerns about status quo bias (Samuelson and Zeckhauser, 1988) and incentivized some individuals to visit the branch and make (and report) an active decision. These incentives were structured as flat cash payments

delivered to respondents who came to the branch within the specified time window. The payment amounts were MK 0 (no payment), MK 500, or MK 1,000. We were explicit that this show-up payment was not conditional on the choice of account disposition and would be paid as long as the account holder came to the branch. The MK 500 payment was calibrated to cover the cost of round-trip bicycle taxi transportation to the branch, although the vast majority of customers in the sample chose to walk rather than pay for transport.

Second, we varied when households were asked to come to the branch. Among those offered a cash payment, half were asked to come within the following week and the other half were asked to come after a two-week waiting period. Households had to come to the bank within their scheduled window in order to receive their show-up bonus, and this was framed as a strategy for managing the flow of visitors. By timing the home visits just days before they went to the branch, these visits constituted a teachable moment, as subjects received information about account fees when that information was needed to make an informed decision. The length of the window for visiting the branch was set at one week and was the same in both cases. The delay was designed to measure the salience of the decision, as forgetful or inattentive customers might not remember to show up after a two-week delay (Bordalo et al., 2012). This potential inattentiveness to bank accounts could explain the large number of dormant accounts in which balances are entirely depleted by monthly fees (Karlan et al., 2014).

This cross-cutting randomization resulted in five treatment groups: a no-bonus and no-date group, and four groups who could receive cash for coming to the bank within a designated window. This randomization was conducted by computer and stratified by village and previous treatment assignment. Assignment to one of the five conditions was made before household visits began, though it was not visible to the field team until information about the three account disposition options had been delivered.

A final treatment was implemented at the bank branch. Some households were randomly selected to be offered MK 1,500 (USD 8 using the 2016 PPP exchange rate), a larger amount than the promised show-up fee. This larger amount was enough to pay for the MK 1,300 ATM card required to open the Pafupi account and therefore relaxed a possible liquidity constraint. The offer, however, did not contain any explicit or implicit suggestion about how to use the money. All show-up bonuses were paid in cash before participants were asked about their decisions regarding the accounts. Similar to other treatment conditions, assignment to this extra cash was randomized by computer and stratified by village and original five-group treatment status. Since customers did not learn about the extra cash until they arrived at the branch, it could not possibly have affected their decision to visit the bank.

3 Data

We use three sources of data. Baseline data come from the household survey administered to all households in March and April 2016. Outcome data come from records collected by our field team stationed at the NBS branch during the intervention and from NBS administrative data.

Panels A and B of Table 1 use data from the 2016 survey to compare the individual characteristics and savings-related behaviors of existing account holders who were assigned to the three different treatments in the transfer experiment of 2015: a control group (column 2), a transfer in cash (column 3), or a transfer directly deposited into the individual’s account (column 4). We report the p-value of the joint test of equal means across all three categories in column 5. Owing to the randomization, we do not expect (and do not observe) differences in time invariant characteristics such as age or gender of the respondent, or in household size. In principle, the transfer treatment could have affected asset ownership, but it does not appear to have done so. The p-value of the F-test that all characteristics in panel A are jointly zero is 0.480. In panel B, respondents who received transfers via direct deposit expressed greater willingness to pay for savings accounts, although the joint test is not statistically significant at conventional levels (the p-value is 0.124). Households that received the transfer did not expect more withdrawals in the next three months compared to those who did not receive the transfer (p-value is 0.227). Past and predicted usage for both samples is still too limited to make the basic account worthwhile given the fee structure. In fact, all subjects would pay lower fees with a Pafupi account if they planned to keep it for four months or more. According to their expected use in the three months after the baseline survey, existing account holders would save on average MK 1,067 (USD 5.80 according to the 2016 PPP exchange rate) even after accounting for the cost of the ATM card.

Panel B of Table 1 also reports account usage six months after the 2015 transfer using administrative data. We find that individuals that received large transfers (either in cash or via direct deposit) made significantly more transactions (p-value is 0.022). Although the overall mean is low, individuals who received the large transfer are also more likely to report correctly the fees in the basic account and to trust NBS. All of these variables were expected to be affected by treatment. While other variables in panel B could had also changed with the transfer, we find that they do not: excluding the percentage of individuals that correctly predict the fees in the basic NBS account, the number of transactions in the 6 and 12 months after the large transfer and the percentage that trust NBS, the p-value of the F-test that the remaining characteristics in panel B are jointly zero is 0.419.

Table 2 reports balancing tests for the choice environment treatments implemented in 2016 and the same variables in panels A and B of Table 1. Judging by the p-values of the

F-tests that all the variables are jointly zero reported in column 6, there are no statistically significant differences, indicating that the randomization of the show-up bonus and timing of the bank visit were successful.

Appendix Table A3 provides counts of individuals making the different choices (not visiting the branch, visiting the branch and leaving without an account, visiting the branch and leaving with a basic account, and visiting the branch and leaving with a Pafupi account). We note that the default option was owning the basic account. We find that about half (53 percent) of the individuals that had not received the transfer kept the basic account, either because they did not visit the branch or because they visited it to collect the show-up fee but chose to retain the existing account. In contrast, only 37 percent of individuals that received the transfer kept the basic account. Unlike owning the basic account, ownership of a Pafupi account required an active choice as well as the purchase of the ATM card and the completion of the required account-opening forms. We find that 37 percent of individuals without the transfer opened a Pafupi account, compared to 55 percent of individuals that received the transfer in 2015.

The following section describes the empirical strategy used to assess the impact of the different treatments on the choice of opening a Pafupi account.

4 Empirical strategy and results

Because the various treatments in 2015 and 2016 were assigned randomly, their impact on the main outcomes of interest can be estimated via the following regression:

$$Y_{iv} = \alpha_v + \beta_T T_{iv} + \beta_{DD} DD_{iv} + \beta_B B_{iv} + \beta_{HB} HB_{iv} + \beta_D D_{iv} + \beta_{AB} AB_{iv} + X_{iv}'\gamma + \epsilon_{iv}, \quad (1)$$

where Y_{iv} refers to whether individual i in village v opened a Pafupi account.⁶ The first set of indicators correspond to the 2015 randomization: T is a dummy that takes the value 1 if the individual received the transfer treatment in 2015; and DD is a dummy that is equal to 1 if the transfer was directly deposited into the account. The next set of indicators are for the 2016 treatments: B is a dummy that takes the value 1 if the individual was promised a show-up bonus (of either MK 500 or MK 1,000) for visiting the bank; HB is a dummy that takes the value 1 if the individual was promised a show-up bonus of MK 1,000; D is a dummy that takes the value 1 if the one-week window to visit the bank was delayed by three

⁶In the online appendix we assess whether participants visited the bank to report their decision about the accounts.

weeks; and AB is a dummy that takes the value 1 if the individual received the extra cash during the branch visit. X_{iv} contains individual-level covariates measured during the 2016 survey and reported in Panel A of Table 1. Although there are no preexisting differences between the groups that did and did not receive the transfer, the vector X_{iv} is included in some specifications to soak up additional variation. The constant α_v refer to village fixed effects since the randomization stratified by village, and ϵ_{iv} is a mean-zero error term.⁷ Since treatment assignment is at the individual level, we report robust standard errors.

The coefficient $\beta_T > 0$ measures the increase in probability of opening a Pafupi account among individuals that received the transfer compared to those that did not receive it. A positive coefficient indicating greater probability of adopting the Pafupi account can be interpreted as a reduction in the status quo bias by subjects who received large transfers in 2015.

Before we turn to the analysis of account opening, Appendix Table A4 analyzes the determinants of visiting the NBS branch during the required time window. Visiting the branch is a necessary condition for opening a Pafupi account and a proxy for attentiveness toward the decision about the basic account; account holders can collect their balances of at least MK 500 by coming to the branch and closing their accounts. In column 1, account holders who received the transfer in 2015 are 7.4 percentage points more likely to visit the bank, compared to a base of 67 percent among individuals that did not receive the transfer. One explanation of why people who received large transfers are more likely to visit the branch is that, as we will discuss, their increased use of the accounts in the past lead to better understanding of the costs of the basic accounts and the benefits of opting in to the new Pafupi accounts.

Offering a show-up bonus of MK 500 for visiting the branch during the pre-specified one-week window increased the probability of visiting the branch by 32.6 percentage points.⁸ The marginal effect of the higher show-up bonus of MK 1,000 relative to the MK 500 show-up bonus is statistically significant but only less than one-fourth as large. The impact of the show-up bonuses is as prevalent in subjects who received the 2015 transfer as in those who did not. When we interact the show-up bonus dummy B_{iv} with the transfer dummy T_{iv} , the coefficient is negative and not statistically significant (results not shown).

We find no evidence of inattentiveness, as delaying the window to visit the branch by two weeks has no impact on the respondent's probability of visiting the branch.⁹ As expected,

⁷We also estimate this specification excluding village fixed effects and the coefficients of interest are virtually unchanged (results not reported).

⁸All customers, including those who did not receive a show-up bonus, were asked to visit the branch by the end of May 2016.

⁹The coefficients in columns 1 and 2 are virtually identical, insignificant in column 1 and barely significant at conventional levels in column 2.

the extra cash offered at the branch also has no effect on the probability of visiting the branch since individuals were not aware of this extra windfall when they decided to visit the branch.

Table 3 analyzes the decision to open a Pafupi account. Column 1 shows that the 2015 transfer increases the probability of switching to a Pafupi account by 13.7 percentage points from a base of 37 percent among account holders who did not receive the transfer, representing an increase of 37 percent. The effect of direct deposit of the 2015 transfer is positive but not statistically significant, and so the test that the impact of a transfer via direct deposit is zero ($T + DD = 0$) is rejected (p-value is 0.00). Panel B of Table 1 shows that all account holders would save roughly the same positive amount from opening a Pafupi account, regardless of whether they received the transfer in 2015 and so by failing to switch, the behavior of account holders is consistent with the status quo bias. The transfer, however, mitigates the bias.

A high show-up bonus also increases the probability of opening a Pafupi account, but the additional cash bonus at the branch does not affect it, even though the purchase of an ATM card is required and could be fully covered with the unanticipated, large cash payment. This suggests that the effect of the high show-up bonus operates through increasing the probability of visiting the bank rather than through relaxing a binding liquidity constraint.

Column 2 shows that the inclusion of baseline characteristics does not affect the coefficients relative to those in column 1. Column 3 of Table 3 presents the results from an IV specification where the instruments for visiting the branch are indicators for the show-up bonus, high show-up bonus, and delayed visit treatments. Accounting for endogeneity in the probability of visiting the branch, the transfer increases take-up of the Pafupi account by 10 percentage points.

Appendix Table A5 explores the relationship between anticipated use and subjective valuation of basic accounts, and take-up of the Pafupi account. Column 1 adds to the right hand side variables a measure of the number of withdrawals that subjects anticipate making in the three months following the survey.¹⁰ We focus on anticipated use because it determines the relative perceived benefits of the Pafupi account compared to the basic account at the time of the decision to open it. Since the Pafupi account charges a fee of MK 150 per withdrawal, customers who anticipate more withdrawals would be better served by the basic account than those who anticipate fewer withdrawals. We see no evidence of any such correlation; the coefficient on the measure of expected withdrawals in column 1 is -0.010. This lack of correlation may be due to the fact that the number of transactions that individuals expect to make is small and therefore, the Pafupi dominates the basic account for all anticipated withdrawals in the support of the data. Column 2 uses the measure of willingness to pay for a basic account elicited at baseline. Since this measure refers to the only account with which

¹⁰See Appendix Table A2 for details about the survey question.

subjects were familiar and was obtained before Pafupi accounts were described, it may be a proxy for the value that subjects place on having any bank account. We see that individuals with a greater willingness to pay for the basic account are also more likely to switch to the Pafupi account. To calibrate this result, individuals that opened a Pafupi account valued the basic accounts they previously held at MK 560 more than individuals who did not switch to Pafupi accounts.

4.1 Mechanisms

In this subsection, we explore why prior usage of basic accounts may mitigate the status quo bias, using receipt of the 2015 transfer as an instrument for account usage. The first stage is:

$$\text{Number of transactions}_{iv} = \alpha + \beta_T T_{iv} + \epsilon_{iv} \quad (2)$$

The measure of transactions includes deposits and withdrawals made beginning one week after the transfer in order to avoid capturing any mechanical effect of directly deposited amounts into the account. We report estimates of the first stage in (2) for 6 and 12 months after the transfers were made in columns 1 and 5 of Table 4, respectively.¹¹ The transfer significantly increased the number of transactions using basic accounts in both time periods; the effect is cumulative and the result is an average increase of 1.7 transactions 12 months after the transfer, or almost twice the 1.8 transactions in the control group (column 5). The effect of the transfer on the number of transactions, while monotonically increasing, becomes less precise estimated over time. The F-statistic for the first-stage regression exceeds the rule-of-thumb threshold for the six-month period (F-stat is 9.05) but not the 12-month period (F-stat is 8.43).

We estimate the following IV specification:

$$Y_{iv} = \gamma + \omega \text{Number of transactions}_{iv} + \epsilon_{iv},$$

where the outcome Y_{iv} is a dummy that takes value 1 if individual i in village v switches to a Pafupi account, trusts the NBS branch, or knows the maintenance fees of the basic account.

Our preferred specification in Table 4 considers cumulative transactions six months after the transfer (columns 2–4) as the endogenous variable, since the 12-month period (columns 6–8) may suffer from a weak instruments problem. The IV results reported in column 2

¹¹For the 187 subjects in the sample who did not receive the transfer, the date used to compute transactions was imputed as the average transfer date for subjects in their village who did receive the transfer.

indicate that each additional induced transaction in the six months following the large cash transfer increased the probability of switching to a Pafupi account by 18 percentage points. Column 3 shows that each additional transaction increases the probability that the individual trusts the branch by 6.3 percentage points. In column 4, each additional transaction increases the probability of correctly recalling the monthly maintenance fees of a basic account by 3.1 percentage points from a base of 3 percent in the control group. Columns 5–8 report the first-stage and IV estimates for the effect of transactions in the 12-month period. The results are similar to those in columns 1–4 but somewhat weaker.

Appendix Table A6 addresses concerns about the possibility of bias due to weak instruments by reporting results using Limited Information Maximum Likelihood estimation, which is thought to be more robust to the presence of weak instruments (Imbens and Wooldridge, 2007). The specification in even-numbered columns of Appendix Table A6 includes the direct deposit treatment as an additional instrument. The LIML point estimates are nearly identical to those obtained with 2SLS, and except for panel C, the Anderson-Rubin confidence intervals are bounded and exclude zero.

4.2 New subjects

To bolster the evidence for the status quo bias, we randomly sampled 216 new households from the same household listing conducted in July 2012 when basic subsidized accounts were offered. These new households had not previously been offered assistance in opening accounts or subsidies for maintaining them, and the vast majority did not have formal bank accounts. In March and April 2016, these new households were also visited at home and given information about opening either a basic account (without subsidies) or a Pafupi account. They were surveyed at the same time as existing account holders, given the same information and randomly assigned to one of the five treatment groups related to show-up bonuses and timing of the bank visit. Comparing the sample of new households to the main sample of existing account-holders, we have random variation in whether or not individuals were endowed with basic savings accounts and we can thus compare the behavior of existing account holders to prospective account holders, similarly to Samuelson and Zeckhauser (1988) in their study of choice of medical plans by new and existing Harvard employees.

Appendix Table A7 shows the results using the sample of existing account holders and new subjects with the same specification as in (1) including a dummy “Old” for whether the individual is an existing account holder. In column 1, existing account holders are 19 percentage points less likely to switch to the cheaper Pafupi account compared to the sample of new subjects. This difference, however, is driven by the behavior of account holders who did not receive the transfer. The transfer mitigates the status quo bias by increasing the

probability of switching to a Pafupi account by 13.8 percentage points. Existing account holders who received the transfer in cash or via direct deposit are as likely to open a Pafupi account as new subjects (p-value is 0.28 and 0.80, respectively).

Although both samples come from the same 2012 listing, by definition the sample of current account holders received and subsequently accepted the offer to open an account in 2012.¹² In contrast, new subjects were never offered the account, and some would have declined to open one. Indeed, the two samples differ along some observable characteristics.¹³

We can address this potential selection bias using two strategies. First, column 2 controls for all of the characteristics in panel A of Table 1. Existing account holders who did not receive transfers in 2015 are nearly 16 percentage points less likely than new subjects to open Pafupi accounts. The difference compared to new subjects is only 2.4 percentage points (p-value is 0.68) for existing account holders who received transfers. Those who received the transfer via direct deposit are 6.4 percentage points more likely than new customers to open Pafupi accounts (p-value is 0.48). Second, in column 3 we use propensity score matching and on same set of covariates to find a sample of new subjects that is comparable to the sample of current account holders, at least on observable characteristics.¹⁴ Column 3 reports similar evidence of status quo bias among the matched sample of existing account holders who did not receive transfers in 2015. These individuals are 17.4 percentage points less likely than new subjects to open Pafupi accounts. Existing account holders who receive the transfer in cash or via direct deposit are, respectively, 3.4 percentage points less likely or 3.1 percentage points more likely than new subjects to open the Pafupi account but these differences are not statistically significant (p-values are 0.51 for cash transfer and 0.53 for direct deposit transfer).

These two strategies yield biases towards the status quo that are similar in magnitude than in the unadjusted specification of column 1. We also use the sample of new subjects to predict the probability of opening a Pafupi account and extrapolate this probability to the sample of existing account holders. We find predicted probabilities that are very similar across samples. This suggests that although the two samples are different on some dimensions, the relationship between observable characteristics and the predicted probabilities of opening a Pafupi account are similar, and as a result, the difference in take-up of the Pafupi account

¹²The take-up rate of account opening in the 2012 experiment was 85 percent.

¹³Existing account holders are 36.5 percentage points more likely to be male and are older by 3.4 years compared to new subjects, reflecting a tendency for men to control household finances. They also have significantly higher value of assets and animals owned, and higher indices of housing quality and land holdings though these last two values do not differ significantly across the two samples at conventional levels.

¹⁴In particular, we use the vector of covariates in X_{iv} to estimate a propensity score. Column 3 restricts the sample to individuals who share a common support in terms of the propensity score. By construction, new and existing account holders in this matched sample are comparable in observable characteristics. When regressing Old_{iv} against the covariates and dummies for each of the propensity score bins, the p-value of the F-test that all variables are jointly equal to zero is smaller than 0.01%.

does not seem to be explained by differences in the covariates across the two samples.

4.3 Discussion

The 2015 transfer induced account usage among recipients and we argue that this increased usage led to better knowledge of the terms of the account and higher trust in NBS. As a result, when a cheaper account was offered, individuals with more experience with the basic (and more expensive) account were more likely to switch. This result is consistent with Bachas et al. (2019) who show that the roll out of debit cards to beneficiaries of a cash transfer program in Mexico led to an increase in savings as debit cards reduced the transaction costs of accessing money and thus increased account usage, reduced monitoring costs, led beneficiaries to check their account balances more frequently, and consequently built trust in the bank.

Thus far, the preference for the status quo exhibited by account holders that did not receive the transfer could be rational, in the sense that the costs of opening Pafupi accounts could outweigh the benefits. There are two types of switching costs that subjects faced. The first relates to transactions costs of visiting the branch. The experiment was carefully designed to offset these transactions costs for some of the sample and to increase the share of customers who came to the branch. Indeed, 18 percent of customers visited the branch to collect their show-up fees, thus incurring time costs, but still retained their old accounts rather than switch to Pafupi accounts. Even accounting for selection into visiting the branch using the randomly assigned show-up fees as instruments, we find that subjects who had received large transfers that induced account use in 2015 were more likely to take up Pafupi accounts.

The second switching cost relates to the psychological costs of learning about the fee structure of each account, assessing their future usage and thus computing the initial and recurring costs of using each account. These calculations are fairly complex and it is thus plausible that for account holders without experience with the account these indirect costs are simply too high, while account holders with experience are able to assess the costs of both accounts.

The behavioral literature suggests other explanations for the status quo bias. Samuelson and Zeckhauser (1988) note that when faced with a complicated decision, individuals may ignore alternative options altogether. But because the default option is the only one with which they have direct experience, it will assume an asymmetric position in the decision-making process relative to other choices, and consequently, will be more likely to be picked. Several studies have documented the tendency of individuals to stick with the status quo as decisions become more complicated (Tversky and Shafir, 1992; Shafir et al., 1993). Samuelson

and Zeckhauser (1988) also suggests that the endowment effect could explain the status quo bias much like individuals are unwilling to part with goods in their endowment, ranging from mugs, chocolate bars, and sports memorabilia to houses and stock market investments (see for example Kahneman et al., 1990; Weber and Camerer, 1998; Genesove and Mayer, 2001; Anagol et al., forthcoming and Ericson and Fuster, 2014 for a review).

Unfortunately, we cannot disentangle how much of the status quo bias in this decision is rational versus behavioral in the data. The possibility of the latter, however, is suggested by the fact that 44 percent of new subjects retain the status quo (i.e. did not go to the bank or went to the bank but did not open an account), compared to 53 percent of account holders that did not receive the transfer (i.e. did not go to the bank or went to the bank but left with their old account). This 9 percentage point difference is statistically significant and suggests a role for behavioral explanations.

The data is inconsistent with some behavioral explanations found in the literature. Beggan (1992) develops a theory suggesting that ownership changes the perceived utility that the item generates. Similarly, Carmon et al. (2003) argue that close consideration of the features of the item could induce an attachment generated by psychological proximity or by how long or intensely one thinks about its features. The status quo bias arises in this case because people dislike breaking attachments. According to these theories, experienced account holders would be more attached to the account and have higher willingness to pay for it compared to inexperienced account holders. As a result, they would be less likely to switch accounts, which is the opposite of what we find.

Finally, we have evidence against alternative interpretations of our results. One could argue, for example, that account holders who received the transfer may have switched to the Pafupi account believing that doing so would increase the chances of receiving another transfer from the research team. Two arguments go against this interpretation. First, enumerators told individuals that the reason why subsidies were being discontinued was because the research project (which was also responsible for the transfers) was coming to a close. It is thus unlikely that they were expecting future transfers. Second, as the choice of accounts was presented in a neutral manner, the probability of a transfer should only depend on keeping an account open, regardless of whether it was the basic or Pafupi account. While only nine percent of existing account holders closed the basic account, those who received the transfer were equally likely to close it compared to those who did not receive it (the p-value is 0.770).

Alternatively, account holders who received the transfer may have switched to the Pafupi account because they expected to make *fewer* withdrawals and thus correctly identified the Pafupi account as being more suited to their needs. While this explanation is consistent with our claim that the transfer induced usage and knowledge about the account, panel B of Table 1 shows that account holders who received the transfer expected to make a similar number of

withdrawals in the three months following the survey compared to those who did not receive the transfer. Moreover, using subjects' own expectations, the Pafupi account would be less expensive than the ordinary account for *all* account holders in the sample, if they maintained the account for at least four months after the subsidies ended. Thus, even if subjects had different expectations about future account use, expectations could not explain why account holders without the transfer preferred the basic account to the Pafupi account.

5 Conclusions

The conclusion of a research study about subsidized bank accounts provided a unique opportunity to study the role of experience in shaping decisions regarding a savings account. In a sample of subjects who opened and owned subsidized savings accounts beginning in 2012, some were randomly selected to receive a transfer in 2015. Such transfers did not have persistent effects on savings or spending, but did increase the number of transactions and thus experience with the account. In 2016, all account holders were visited at home and presented with the choice of keeping their existing account but paying maintenance fees previously covered by the subsidies, closing their accounts entirely, or switching to a new type of account (Pafupi) with a different and advantageous fee structure. Importantly, based on the number of transactions individuals had made until the home visit, the Pafupi account was cheaper than the original account for everyone in the sample so long as their usage patterns continued and they planned to keep the account for at least four months.

We find that 63 percent of basic account holders that did not receive a transfer failed to switch to the cheaper Pafupi account. In contrast, only 45 percent of account holders who were experimentally induced to use their accounts with the transfer chose to retain them. The status quo bias, therefore, can be explained by lack of experience with the account. Individuals that were induced to use the account learned about its features by transacting with it and switched to the cheaper option when presented with the choice. In addition, none of the individuals without a prior account chose to open the expensive (basic) account.

The choice of accounts is complex as subjects need to be familiar with the fee structure of each account and be able to apply the monthly and transaction costs to their own anticipated use patterns. One could thus conclude that the greater status quo bias exhibited by account holders without the transfer is rational as complexity results in costs of switching that are higher than its benefits (Samuelson and Zeckhauser, 1988). Rationality would predict that new subjects and account holders without the transfer would be equally likely to keep the status quo as they were equally unfamiliar with the features of the basic account. However, when we compare the behavior of subjects who owned subsidized accounts to a sample of

customers who had not received subsidized accounts in the past, the old account holders are 9 percentage points more likely to retain their status quo (of owning a basic account) than the new subjects (whose status quo is not owning any account). New subjects' greater propensity to engage with the complexity of the decision suggests that behavioral explanations of the status quo bias likely play a role. Moreover, new subjects who elected to open accounts universally recognized that the Pafupi accounts were preferable to the basic accounts. Our sample size did not permit including experimental arms to directly distinguish between rational and behavioral sources of status quo bias, or to compare adoption of the cost-saving Pafupi account with a different new account that charged higher fees.

Policymakers frequently consider competing policies to broaden financial inclusion by devoting resources to financial literacy campaigns or by subsidizing accounts. Our results suggest that making transfers directly into the accounts of individuals may be beneficial as these deposits induce account holders to transact, and the resulting familiarity with the account will raise financial awareness and improve financial decision making.

References

- AGARWAL, S., S. CHOMSISENGPHET, N. MAHONEY, AND J. STROEBEL (2015): “Regulating Consumer Financial Products: Evidence from Credit Cards,” *Quarterly Journal of Economics*, 130, 111–164.
- AGARWAL, S., J. DRISCOLL, X. GABAIX, AND D. LAIBSON (2013): “Learning in the Credit Card Market,” Mimeo.
- ANAGOL, S., V. BALASUBRAMIAM, AND T. RAMADORAI (forthcoming): “Endowment Effects in the Field: Evidence from India’s IPO Lotteries,” *Review of Economic Studies*.
- BACHAS, P., P. GERTLER, S. HIGGINS, , AND E. SEIRA (2019): “How Debit Cards Enable the Poor to Save More,” Mimeo.
- BEGGAN, J. (1992): “On the social nature of nonsocial perception: The mere ownership effect,” *Journal of Personality and Social Psychology*, 62, 229–237.
- BLUMENSTOCK, J., M. CALLEN, AND T. GHANI (2018): “Why Do Defaults Affect Behavior? Experimental Evidence from Afghanistan,” *American Economic Review*, 108, 2868–2901.
- BORDALO, P., N. GENNAIOLI, AND A. SHLEIFER (2012): “Salience in Experimental Tests of the Endowment Effect,” *American Economic Review*, 102, 47–52.
- BRUNE, L., X. GINÉ, J. GOLDBERG, AND D. YANG (2017): “Savings defaults and payment delays for cash transfers: Field experimental evidence from Malawi,” *Journal of Development Economics*, 129, 1–13.
- BURNHAM, T. A., J. K. FRELS, AND V. MAHAJAN (2003): “Consumer switching costs: A typology, antecedents, and consequences,” *Journal of the Academy of Marketing Science*, 31, 109–126.
- CAMPBELL, J. Y., H. JACKSON, B. C. MADRIAN, AND P. TUFANO (2011): “Consumer Financial Protection,” *Journal of Economic Perspectives*, 25, 91–114.
- CARMON, Z., K. WERTENBROCH, AND M. ZEELENBERG (2003): “Option Attachment: When Deliberating Makes Choosing Feel like Losing,” *Journal of Consumer Research*, 30, 15–29.
- CHOI, J., D. LAIBSON, AND B. C. MADRIAN (2011): “\$100 Bills on the Sidewalk: Suboptimal Investment in 401(k) Plans,” *Review of Economics and Statistics*, 93, 748–763.

- COLE, S., T. SAMPSON, AND B. ZIA (2011): “Prices or Knowledge? What Drives Demand for Financial Services in Emerging Markets?” *Journal of Finance*, 66, 1933–1967.
- DELLAVIGNA, S. (2009): “Psychology and Economics: Evidence from the Field,” *Journal of Economic Literature*, 47, 314–372.
- DEMIRGÜÇ-KUNT, A., L. KLAPPER, D. SINGER, S. ANSAR, AND J. HESS (2018): *The Global Findex Database 2017*, Washington, DC: World Bank.
- DHAR, R. AND N. ZHU (2006): “Up Close and Personal: Investor Sophistication and the Disposition Effect,” *Management Science*, 52, 726–740.
- DUARTE, F. AND J. HASTINGS (2012): “Fettered Consumers and Sophisticated Firms: Evidence from Mexico’s Privatized Social Security Market,” NBER Working Paper No. 18582.
- ENGELMANN, D. AND G. HOLLARD (2010): “Reconsidering the Effect of Market Experience on the “Endowment Effect”,” *Econometrica*, 78, 2005–2019.
- ERICSON, K. AND A. FUSTER (2014): “The Endowment Effect,” *Annual Review of Economics*, 6, 555–579.
- FENG, L. AND M. S. SEASHOLES (2005): “Do Investor Sophistication and Trading Experience Eliminate Behavioral Biases in Financial Markets?” *Review of Finance*, 9, 305–351.
- GENESOVE, D. AND C. MAYER (2001): “Loss Aversion and Seller Behavior: Evidence from the Housing Market,” *Quarterly Journal of Economics*, 116, 1233–1260.
- GINÉ, X. AND R. MAZER (2018): “Financial (Dis-)Information: Evidence from a Multi-Country Audit Study,” Mimeo.
- GREENWOOD, R. AND S. NAGEL (2009): “Inexperienced investors and bubbles,” *Journal of Financial Economics*, 93, 239–258.
- GROSS, D. B. AND N. S. SOULELES (2002): “An Empirical Analysis of Personal Bankruptcy and Delinquency,” *The Review of Financial Studies*, 15, 319–347.
- GÄCHTER, S., H. ORZEN, E. RENNER, AND C. STARMER (2009): “Are experimental economists prone to framing effects? A natural field experiment,” *Journal of Economic Behavior and Organization*, 70, 443–446.
- HARTMAN, R. S., M. J. DOANE, AND C.-K. WOO (1991): “Consumer Rationality and the Status Quo,” *Quarterly Journal of Economics*, 106, 141–162.

- HASTINGS, J., B. MADRIAN, AND W. SKIMMYHORN (2012): “Financial Literacy, Financial Education and Economic Outcomes,” NBER Working Paper No. 18412.
- HASTINGS, J. S., B. C. MADRIAN, AND W. L. SKIMMYHORN (2013): “Financial Literacy, Financial Education, and Economic Outcomes,” *Annual Review of Economics*, 5, 347–373.
- IMBENS, G. AND J. WOOLDRIDGE (2007): “Weak Instruments and Many Instruments,” Lecture Notes, NBER Summer Institute: What’s New in Econometrics.
- IYENGAR, S. S. AND M. L. LEPPER (2000): “When Choice Is Demotivating: Can One Desire Too Much of a Good Thing?” *Journal of Personality and Social Psychology*, 79, 995–1006.
- KAHNEMAN, D., J. L. KNETSCH, AND R. H. THALER (1990): “Experimental Tests of the Endowment Effect and the Coase Theorem,” *Journal of Political Economy*, 98, 25–48.
- KAHNEMAN, D. AND A. TVERSKY (1979): “Prospect Theory: An Analysis of Decision Under Risk,” *Econometrica*, 47, 263–291.
- KARLAN, D., A. RATAN, AND J. ZINMAN (2014): “Savings By and For the Poor: A research review and agenda,” *Review of Income and Wealth*, 60, 36–78.
- KLEMPERER, P. (1995): “Competition when Consumers have Switching Costs: An Overview with Applications to Industrial Organization, Macroeconomics, and International Trade,” *Review of Economic Studies*, 62, 515–539.
- LIST, J. A. (2003): “Does Market Experience Eliminate Market Anomalies?” *Quarterly Journal of Economics*, 118, 41–71.
- (2004): “Neoclassical Theory Versus Prospect Theory: Evidence from the Marketplace,” *Econometrica*, 72, 615–625.
- (2011): “Does Market Experience Eliminate Market Anomalies? The Case of Exogenous Market Experience,” *The American Economic Review P & P*, 101, 313–317.
- MADRIAN, B. C. AND D. F. SHEA (2001): “The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior,” *Quarterly Journal of Economics*, 116, 1149–1187.
- MILLER, M., J. REICHELSTEIN, C. SALAS, AND B. ZIA (2014): “Can You Help Someone Become Financially Capable? A Meta-Analysis of the Literature,” *World Bank Research Observer*, 30, 220–246.

- PLOTT, C. R. AND K. ZEILER (2005): "The Willingness to Pay-Willingness to Accept Gap, the "Endowment Effect," Subject Misconceptions, and Experimental Procedures for Eliciting Valuations," *American Economic Review*, 95, 530–545.
- (2007): "Exchange Asymmetries Incorrectly Interpreted as Evidence of Endowment Effect Theory and Prospect Theory?" *American Economic Review*, 97, 1449–1466.
- SAMUELSON, W. AND R. ZECKHAUSER (1988): "Status Quo Bias in Decision Making," *Journal of Risk & Uncertainty*, 1, 7–59.
- SERU, A., T. SHUMWAY, AND N. STOFFMAN (2010): "Learning by Trading," *Review of Financial Studies*, 23, 705–739.
- SHAFIR, E., I. SIMONSON, AND A. TVERSKY (1993): "Reason-Based Choice," *Cognition*, XLIX, 11–36.
- THALER, R. H. (1980): "Toward a Positive Theory of Consumer Choice," *Journal of Economic Behavior & Organization*, 1, 39–60.
- TVERSKY, A. AND D. KAHNEMAN (1991): "Loss Aversion in Riskless Choice: A Reference-Dependent Model," *Quarterly Journal of Economics*, 106, 1039–1061.
- TVERSKY, A. AND E. SHAFIR (1992): "Choice under Conflict: The Dynamics of Deferred Decision," *Psychological Science*, III, 358–361.
- WEBER, M. AND C. F. CAMERER (1998): "The disposition effect in securities trading: An experimental analysis," *Journal of Economic Behavior and Organization*, 33, 167–184.

Tables

Table 1: Balancing tests: transfer treatments of 2015

	(1) Total	(2) Control	(3) Cash	(4) DD	(5) p-value
<i>Panel A: Individual characteristics</i>					
Male	0.596 (0.020)	0.556 (0.036)	0.582 (0.035)	0.646 (0.033)	0.174
Age	46.0 (0.7)	45.6 (1.2)	46.8 (1.1)	45.5 (1.1)	0.685
Education	1.5 (0.0)	1.5 (0.1)	1.5 (0.1)	1.6 (0.1)	0.224
Household size	5.1 (0.1)	5.0 (0.1)	5.1 (0.1)	5.1 (0.2)	0.960
Housing quality score	0.035 (0.044)	0.005 (0.073)	0.023 (0.075)	0.074 (0.081)	0.803
Value of assets (000s)	214.1 (15.9)	201.7 (26.4)	228.8 (29.4)	211.0 (26.8)	0.783
Asset score	0.254 (0.144)	0.351 (0.308)	0.151 (0.223)	0.266 (0.218)	0.853
Value of animals (000s)	124.3 (10.9)	120.9 (19.8)	137.7 (19.6)	114.3 (17.2)	0.657
Animal score	0.054 (0.051)	0.214 (0.128)	0.020 (0.075)	-0.059 (0.053)	0.084
Acres owned	8.6 (1.0)	9.7 (1.9)	8.1 (1.7)	8.2 (1.8)	0.774
p-value of F-test that all variables are jointly zero		0.258	0.804	0.397	0.480
<i>Panel B: Savings-related behavior</i>					
Willingness to pay (MK 1000s)	4.4 (0.1)	4.2 (0.2)	4.3 (0.2)	4.7 (0.2)	0.124
Number of formal savings accounts	1.000 (0.024)	0.963 (0.042)	1.040 (0.043)	0.995 (0.039)	0.417
Total value of formal savings (MK)	5623.2 (1043.8)	5059.9 (1247.6)	8051.8 (2757.6)	3764.7 (721.3)	0.221
Number of deposits to formal savings (previous month)	0.155 (0.026)	0.193 (0.055)	0.154 (0.050)	0.121 (0.030)	0.550
Number of informal savings strategies	0.899 (0.038)	0.925 (0.069)	0.886 (0.061)	0.888 (0.067)	0.896
Total value of informal savings (MK)	13011.1 (1876.3)	15390.5 (3768.7)	12089.6 (1996.0)	11750.2 (3719.6)	0.690
Number of deposits to informal savings (previous month)	1.5 (0.1)	1.5 (0.1)	1.6 (0.2)	1.6 (0.1)	0.886
Current balance (NBS administrative data) (MK)	2540.9 (486.8)	1826.3 (627.5)	3456.7 (1264.6)	2299.1 (343.0)	0.375
Self-report correct, regular fees	0.057 (0.010)	0.032 (0.013)	0.085 (0.020)	0.053 (0.016)	0.081
Number of transactions (6 months)	1.7 (0.2)	1.0 (0.2)	1.9 (0.4)	2.0 (0.2)	0.022
Number of transactions (12 months)	2.8 (0.3)	1.8 (0.4)	3.3 (0.7)	3.3 (0.4)	0.080
Expected withdrawals (next 3 months)	0.886 (0.056)	0.904 (0.103)	0.995 (0.111)	0.762 (0.078)	0.227
Savings of holding Pafupi relative to basic account (MK)	1067.2 (8.5)	1064.4 (15.4)	1050.7 (16.6)	1085.7 (11.7)	0.227
Trust NBS	0.934 (0.010)	0.898 (0.022)	0.960 (0.014)	0.942 (0.016)	0.043
p-value of F-test that all variables are jointly zero		0.048	0.265	0.339	0.058
Observations	594	187	201	206	

Notes: This table shows summary statistics of NBS account holders using data from the March/April 2016 household survey. Column 1 shows summary statistics for all account holders. In Column 2 we present summary statistics of account holders in the control group, while Columns 3 and 4 show the numbers for account holders who received the windfall transfer in cash and direct deposit, respectively. In column 5, we show the p-values of a joint null test when regressing the relevant variable against dummies for each of the 3 groups of account holders (control, cash and direct deposit). Panel A has summary statistics for individual characteristics, while in Panel B we show means and SDs of variables that capture individual savings behavior. At the end of each panel, we show a p-value of joint orthogonality tests. In Columns 2-4, we regress for each group against all the characteristics in each panel and report the p-value of a joint F-test that all coefficients are equal to zero. In Column 5, the last row corresponds to the p-value of a similar test for a multinomial logit aggregating all 3 groups of account holders. See Appendix Table A1 for definition of each variable.

Table 2: Balancing tests: account choice treatments of 2016

	(1)	(2)	(3)	(4)	(5)	(6)
	Control	One Week Low Bonus	One Week High Bonus	One Month Low Bonus	One Month High Bonus	p-value
<i>Panel A: Individual characteristics</i>						
Male	0.632 (0.043)	0.580 (0.055)	0.564 (0.057)	0.551 (0.041)	0.632 (0.038)	0.528
Age	45.9 (1.6)	46.5 (1.7)	46.3 (1.7)	45.9 (1.5)	45.6 (1.2)	0.995
Education	1.6 (0.1)	1.7 (0.1)	1.5 (0.1)	1.5 (0.1)	1.5 (0.1)	0.742
Household size	4.9 (0.2)	5.2 (0.2)	4.7 (0.2)	5.1 (0.2)	5.3 (0.2)	0.280
Housing quality score	-0.021 (0.098)	0.033 (0.130)	-0.161 (0.111)	0.139 (0.088)	0.079 (0.083)	0.333
Value of assets (000s)	259.9 (41.9)	203.2 (42.3)	195.9 (35.9)	204.6 (29.3)	201.6 (30.2)	0.695
Asset score	0.501 (0.327)	-0.017 (0.246)	0.111 (0.351)	0.224 (0.263)	0.293 (0.339)	0.869
Value of animals (000s)	120.2 (23.5)	82.1 (22.1)	122.3 (30.8)	151.4 (24.7)	125.0 (20.3)	0.460
Animal score	-0.019 (0.074)	-0.055 (0.101)	-0.057 (0.097)	0.224 (0.144)	0.062 (0.099)	0.353
Acres owned	9.0 (2.5)	9.0 (2.8)	8.0 (2.6)	9.0 (2.0)	8.1 (1.9)	0.995
p-value of F-test that all variables are jointly zero	0.809	0.721	0.778	0.350	0.785	0.871
<i>Panel B: Savings-related behavior</i>						
Willingness to pay (MK 1000s)	4.5 (0.2)	4.5 (0.3)	3.9 (0.3)	4.2 (0.2)	4.7 (0.2)	0.080
Number of formal savings accounts	1.056 (0.060)	1.025 (0.055)	0.897 (0.067)	0.939 (0.048)	1.049 (0.041)	0.158
Total value of formal savings	5026.3 (1315.1)	3997.5 (1099.4)	1932.9 (532.2)	8059.8 (3486.5)	6457.1 (1786.1)	0.469
Number of deposits to formal savings (previous month)	0.160 (0.049)	0.123 (0.059)	0.090 (0.037)	0.170 (0.066)	0.184 (0.056)	0.842
Number of informal savings strategies	0.888 (0.086)	0.877 (0.113)	0.795 (0.105)	0.946 (0.073)	0.926 (0.069)	0.815
Total value of informal savings (MK)	14265.7 (4843.9)	9604.3 (1669.9)	24392.3 (10306.7)	9376.9 (1476.5)	11573.0 (2461.0)	0.167
Number of deposits to informal savings (previous month)	1.7 (0.2)	1.4 (0.2)	1.3 (0.2)	1.4 (0.2)	1.7 (0.2)	0.510
Current balance (NBS administrative data) (MK)	2135.2 (463.4)	2638.6 (1379.5)	1225.0 (211.5)	4074.3 (1636.4)	1935.3 (436.6)	0.409
Self-report correct, regular fees	0.064 (0.022)	0.037 (0.021)	0.038 (0.022)	0.088 (0.023)	0.043 (0.016)	0.345
Number of transactions (6 months)	2.0 (0.4)	1.4 (0.4)	1.7 (0.7)	1.7 (0.3)	1.5 (0.2)	0.813
Number of transactions (12 months)	3.2 (0.6)	2.0 (0.6)	3.0 (1.5)	3.0 (0.6)	2.6 (0.5)	0.816
Expected withdrawals (next 3 months)	1.032 (0.137)	0.728 (0.110)	0.987 (0.168)	0.789 (0.103)	0.890 (0.115)	0.460
Savings of holding Pafupi relative to basic account (MK)	1045.2 (20.5)	1090.7 (16.5)	1051.9 (25.2)	1081.6 (15.4)	1066.6 (17.3)	0.460
Trust NBS	0.936 (0.022)	0.926 (0.029)	0.949 (0.025)	0.939 (0.020)	0.926 (0.021)	0.966
p-value of F-test that all variables are jointly zero	0.760	0.939	0.039	0.106	0.557	0.170
Observations	125	81	78	147	163	

Notes: This is a balance table that compares individual characteristics across experimental groups. Column 1 shows summary statistics for the control group and Columns 2-5 show the means and SDs for the 4 treatment arms. In column 7, we show the p-values of a joint null test when regressing the relevant variable against dummies for each of the 5 experimental groups. Panel A has summary statistics for individual characteristics, while in Panel B we show means and SDs of variables that capture individual savings behavior. In Column 7, the last row corresponds to the p-value of a test for a multinomial logit aggregating all 5 groups of account holders. See Appendix Table A1 for definition of each variable.

Table 3: Determinants of owning a Pafupi account

	(1)	(2)	(3)
	Opened Pafupi account (1=Yes)		
Transfer (2015) (T)	0.137 (0.049)	0.140 (0.049)	0.100 (0.041)
Direct deposit (2015) (DD)	0.063 (0.049)	0.070 (0.049)	0.004 (0.044)
Show-up fee (2016) (B)	0.095 (0.066)	0.079 (0.067)	
High show-up fee (2016) (HB)	0.096 (0.046)	0.111 (0.046)	
Delayed visit (2016) (D)	0.073 (0.049)	0.057 (0.049)	
Additional bonus at branch (2016) (AB)	-0.023 (0.046)	-0.021 (0.047)	-0.032 (0.040)
Covariates	No	Yes	Yes
Village FEs	Yes	Yes	Yes
Observations	594	594	594
R-squared	0.09	0.11	0.36
Mean dep. var. control group	0.37	0.37	0.37
SD dep. var. control group	0.49	0.49	0.49
P-value: $T + DD = 0$	0.00	0.00	0.03
P-value: $B + HB = 0$	0.00	0.00	.

Notes: In this table we show estimates of the following specification: $Y_{iv} = \alpha_v + \beta_T T_{iv} + \beta_{DD} DD_{iv} + \beta_B B_{iv} + \beta_{HB} HB_{iv} + \beta_D D_{iv} + \beta_{AB} AB_{iv} + X_{iv}'\gamma + \epsilon_{iv}$, where T is a dummy that takes value 1 if the individual received the transfer treatment in 2015; DD is a dummy if the transfer was directly deposited into the account; B (HB) is a dummy that takes value 1 if the individual was promised a show-up bonus of MK 500 (MK 1,000) for visiting the bank; D is a dummy that takes value 1 if the one-week window to visit the bank was delayed by three weeks and AB is a dummy that takes value 1 if the individual received the extra cash during the branch visit. The vector X_{iv} contains individual-level covariates measured during the 2016 survey. The variable ϵ_{iv} is a mean-zero error term. Dependent variable equals 1 for respondents who visited the NBS branch and 0 otherwise. Dependent variable equals 1 for respondents who opened Pafupi accounts and 0 otherwise. Column 3 is a 2SLS regression, using 2016 treatments as instruments for visiting the bank branch. Control group corresponds to individuals that did not receive the transfer in 2015 nor a show-up bonus in 2016. We also include village fixed-effects in all regressions. When indicated, covariates are the variables in Panel A of Table 1, namely male, age, education of household head, household size, housing quality score, value of assets, asset score, value of animals, animal score and acres owned. See Appendix Table A2 for definition of each variable. Robust standard errors.

Table 4: Effect of induced account usage on take-up of Pafupi accounts, trust and knowledge (2SLS)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	First	Take-up	Trust	Knowledge	First	Take-up	Trust	Knowledge
	Stage	IV	IV	IV	Stage	IV	IV	IV
Transfer (2015) (T)	0.962 (0.291)				1.691 (0.551)			
Number of transactions (6 months)		0.179 (0.069)	0.063 (0.030)	0.031 (0.020)		0.102 (0.041)	0.036 (0.018)	0.018 (0.012)
Number of transactions (12 months)								
Covariates	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	594	594	594	594	594	594	594	594
R-squared	0.15	.	.	.	0.17	.	.	.
Mean dep. var. control group	1.02	0.37	0.90	0.03	1.76	0.37	0.90	0.03
SD dep. var. control group	2.67	0.49	0.30	0.18	4.92	0.49	0.30	0.18
F-statistic	9.05				8.43			

Notes: In this table we show IV estimates of the following specification: $Y_{itv} = \gamma + \omega \text{Number of transactions}_{itv} + \epsilon_{itv}$, where the number of transactions made by a existing account holder is instrumented with the large windfall transfer made in 2015. Columns (1) and (5) report first stage (OLS) regressions where the dependent variable is the total number of transactions in the customer's NBS account in the 6 (column 1) or 12 (column 5) months following the windfall transfer. See text for a discussion of how a counterfactual transfer date is constructed for the control group. Columns (2)-(4) and (6)-(8) report IV results, instrumenting for the number of transactions 6 (columns 2-4) or 12 (columns 6-8) months following the transfer with an indicator for receiving the transfer. In columns (2) and (6), the dependent variable equals 1 for respondents who opened Pafupi accounts and 0 otherwise. In columns (3) and (7), the dependent variable equals 1 for respondents who reported trusting NBS and 0 otherwise. In columns (4) and (8), the dependent variable equals 1 for respondents who correctly reported that regular fees are between MK 350 and MK 450 and 0 otherwise. Control group corresponds to individuals that did not receive the transfer in 2015 nor a show-up bonus in 2016. We also include village fixed-effects in all regressions. When indicated, covariates are the variables in Panel A of Table 1, namely male, age, education of household head, household size, housing quality score, value of assets, asset score, value of animals, animal score and acres owned. See Appendix Table A2 for definition of each variable. Robust standard errors.

Appendix Table A1: Characteristics of Basic and Pafupi accounts

	Basic		Pafupi
	Before May 2016	After May 2016	After May 2016
Minimum balance	500 MK	500 MK	500 MK
Monthly Maintenance fee	0 MK	400 MK	0 MK
Withdrawal Fee	0 MK	0 MK	150 MK
ATM Card required	No	No	Yes

Appendix Table A2: Description of variables

Variable	Description
<i>Individual characteristics</i>	
Male	Equal to 1 if respondent is male, 0 if female
Age	Age of respondent at baseline
Education	Years of schooling of respondent at baseline
Household size	Number of household members at baseline
Housing quality score	PCA score on house quality at baseline, based on answers to the following questions: (i) Do you own the house you currently live in?; (ii) How many rooms does your house / compound have?; (iii) Does your house have a working connection to electricity?; (iv) Does your house have running water in the house?
Asset value (MK 000s)	Total value of household assets at baseline (thousands of MK)
Asset score	PCA score of asset value
Animal value (MK 000s)	Total value of household animals at baseline (thousands of MK)
Animal score	PCA score of animal value
Acres owned	Total acres of land owned by household at baseline
<i>Savings-related behavior</i>	
Willingness to pay (MK 1000s)	Willingness to pay (thousands of MK) for a basic NBS account based on individual answers to 6 hypothetical questions with two options, A and B. By choosing option A, the respondent prefers a fully subsidized NBS account for 6 months and the following amounts deposited to the account: MK 6,600, MK 4,950, MK 3,300, MK 1,650 and MK 825. By choosing option B, the respondent prefers receiving MK 6,600 in cash rather than having an NBS account.
Number of formal savings accounts	Number of formal savings accounts or instruments at baseline
Total value of formal savings (MK)	Total value of household formal savings (MK) at baseline
Number of deposits to formal savings (previous month)	Number of deposits made to any formal savings account or instrument in the month prior to baseline interview
Number of informal savings strategies	Number of informal savings accounts or instruments at baseline
Total value of informal savings (MK)	Total value of household informal savings (MK) at baseline
Number of deposits to informal savings (previous month)	Number of deposits made to any informal savings account or instrument in the month prior to baseline interview
Current balance (NBS administrative data) (MK)	Account balance (MK) at baseline
Self-reported correct, regular fees	Equal to 1 if individual correctly reported at baseline that monthly fee for basic account ranges between MK 350 and MK 450, 0 otherwise. The correct answer is MK 400.
Number of transactions (6 months)	Total number of transactions made by an individual in the 6 months following the windfall transfer (starting one week after the transfer)
Number of transactions (12 months)	Total number of transactions made by an individual in the 12 months following the windfall transfer (starting one week after the transfer)
Expected withdrawals (next 3 months)	Number of withdrawals an individual is expected to make in the 3 months following the baseline interview. For individuals without an account, the questions was framed in a hypothetical way (e.g. if you had an account, how many transactions would you make...?)
Savings of holding Pafupi relative to basic account	Difference in total cost of transactions expected to be made in the 3 months following the baseline interview if individual holds a basic account (MK 150 per transaction) relative to a regular account (monthly maintenance fee of MK 400)
Trust NBS	Equal to 1 if individual trusts NBS branch he or she visits at baseline, 0 otherwise
Knowledge	Equal to 1 if individual correctly reported that regular NBS fees are between MK 350 and MK 450, 0 otherwise

Appendix Table A3: Visits to NBS branch and account opening

	All		No transfer		Transfer	
	Count	Perc.	Count	Perc.	Count	Perc.
Did not go to the bank	147	25%	62	33%	85	21%
Went to the bank, left with no account	51	9%	17	9%	34	8%
Went to the bank, left with old account	104	18%	38	20%	66	16%
Went to bank, left with Pafupi account	292	49%	70	37%	222	55%
Total	594	100%	187	100%	407	100%

Appendix Table A4: Determinants of visiting the NBS branch

	(1)	(2)
	Visit to NBS branch (1=Yes)	
Transfer (2015) (<i>T</i>)	0.074 (0.043)	0.072 (0.043)
Direct deposit (2015) (<i>DD</i>)	0.119 (0.039)	0.120 (0.040)
Show-up fee (2016) (<i>B</i>)	0.326 (0.058)	0.315 (0.059)
High show-up fee (2016) (<i>HB</i>)	0.078 (0.035)	0.089 (0.035)
Delayed visit (2016) (<i>D</i>)	-0.059 (0.036)	-0.062 (0.037)
Additional bonus at branch (2016) (<i>AB</i>)	0.011 (0.035)	0.016 (0.036)
Covariates	No	Yes
Village FEs	Yes	Yes
Observations	594	594
R-squared	0.17	0.18
Mean dep. var. control group	0.67	0.67
SD dep. var. control group	0.47	0.47
P-value: $T + DD = 0$	0.00	0.00
P-value: $B + HB = 0$	0.00	0.00

Notes: In this table we show estimates of the following specification: $Y_{iv} = \alpha_v + \beta_T T_{iv} + \beta_{DD} DD_{iv} + \beta_B B_{iv} + \beta_{HB} HB_{iv} + \beta_D D_{iv} + \beta_{AB} AB_{iv} + X_{iv}'\gamma + \epsilon_{iv}$, where T is a dummy that takes value 1 if the individual received the transfer treatment in 2015; DD is a dummy if the transfer was directly deposited into the account; B (HB) is a dummy that takes value 1 if the individual was promised a show-up bonus of MK 500 (MK 1,000) for visiting the bank; D is a dummy that takes value 1 if the one-week window to visit the bank was delayed by three weeks and AB is a dummy that takes value 1 if the individual received the extra cash during the branch visit. The vector X_{iv} contains individual-level covariates measured during the 2016 survey. The variable ϵ_{iv} is a mean-zero error term. Dependent variable equals 1 for respondents who visited the NBS branch and 0 otherwise. OLS regressions. Control group corresponds to individuals that did not receive the transfer in 2015 nor a show-up bonus in 2016. We also include village fixed-effects in all regressions. When indicated, covariates are the variables in Panel A of Table 1, namely male, age, education of household head, household size, housing quality score, value of assets, asset score, value of animals, animal score and acres owned. See Appendix Table A2 for definition of each variable. Robust standard errors.

Appendix Table A5: Subjective valuation of NBS and take-up of Pafupi accounts

	(1)	(2)
	Opened Pafupi account (1=Yes)	
Transfer (2015) (<i>T</i>)	0.141 (0.049)	0.135 (0.049)
Direct deposit (2015) (<i>DD</i>)	0.069 (0.049)	0.065 (0.049)
Show-up fee (2016) (<i>B</i>)	0.077 (0.067)	0.085 (0.066)
High show-up fee (2016) (<i>HB</i>)	0.112 (0.046)	0.108 (0.046)
Delayed visit (2016) (<i>D</i>)	0.057 (0.049)	0.050 (0.049)
Additional bonus at branch (2016) (<i>AB</i>)	-0.021 (0.047)	-0.015 (0.046)
Expected withdrawals (next 3 months)	-0.010 (0.015)	
Willingness to pay (1000s)		0.027 (0.009)
Covariates	Yes	Yes
Village FEs	Yes	Yes
Observations	594	594
R-squared	0.11	0.12
Mean dep. var. control group	0.37	0.37
SD dep. var. control group	0.49	0.49
P-value: $T + DD = 0$	0.00	0.00
P-value: $B + HB = 0$	0.01	0.00

Notes: In this table we show estimates of the following specification: $Y_{iv} = \alpha_v + \beta_T T_{iv} + \beta_{DD} DD_{iv} + \beta_B B_{iv} + \beta_{HB} HB_{iv} + \beta_D D_{iv} + \beta_{AB} AB_{iv} + X_{iv}'\gamma + \epsilon_{iv}$, where T is a dummy that takes value 1 if the individual received the large transfer treatment in 2012; DD is a dummy if the large transfer was directly deposited into the account; B (HB) is a dummy that takes value 1 if the individual was promised a show-up bonus of MK 500 (MK 1,000) for visiting the bank; D is a dummy that takes value 1 if the one-week window to visit the bank was delayed by three weeks and AB is a dummy that takes value 1 if the individual received the extra cash during the branch visit. The vector X_{iv} contains individual-level covariates measured during the 2016 survey. The variable ϵ_{iv} is a mean-zero error term. Dependent variable equals 1 for respondents who opened Pafupi accounts and 0 otherwise. In Column 1, we also include EW_{iv} , the number of withdrawals a individual expects to make in the following 3 months. In Column 2 we include the individual's willingness to pay for a NBS account in MK 1,000s (WTP). OLS regressions. Control group corresponds to individuals that did not receive the transfer in 2015 nor a show-up bonus in 2016. We also include village fixed-effects in all regressions. When indicated, covariates are the variables in Panel A of Table 1, namely male, age, education of household head, household size, housing quality score, value of assets, asset score, value of animals, animal score and acres owned. See Appendix Table A2 for definition of each variable. Robust standard errors.

Appendix Table A6: Effect of induced account usage on take-up of Pafupi accounts, trust in NBS and knowledge of regular fees (LIML)

	(1)	(2)	(3)	(4)
<i>Panel A: Take-up</i>				
Number of transactions (6 months)	0.179 (0.069)	0.199 (0.082)		
Number of transactions (12 months)			0.102 (0.041)	0.116 (0.058)
Mean dep. var. control group	0.37	0.37	0.37	0.37
SD dep. var. control group	0.49	0.49	0.49	0.49
Anderson-Rubin confidence interval	[0.076, 0.579]	[0.075, 1.162]	[0.042, 0.407]	[0.044, 1.088]
<i>Panel B: Trust</i>				
Number of transactions (6 months)	0.063 (0.030)	0.066 (0.032)		
Number of transactions (12 months)			0.036 (0.018)	0.037 (0.019)
Mean dep. var. control group	0.90	0.90	0.90	0.90
SD dep. var. control group	0.30	0.30	0.30	0.30
Anderson-Rubin confidence interval	[0.018, 0.209]	[0.011, 0.412]	[0.010, 0.144]	[0.006, 0.422]
<i>Panel C: Knowledge</i>				
Number of transactions (6 months)	0.031 (0.020)	0.038 (0.027)		
Number of transactions (12 months)			0.018 (0.012)	0.023 (0.015)
Mean dep. var. control group	0.03	0.03	0.03	0.03
SD dep. var. control group	0.18	0.18	0.18	0.18
Anderson-Rubin confidence interval	[-0.0124, 0.124]	[-0.121, 0.224]	[-0.007, 0.081]	[-0.006, 0.234]
Covariates	Yes	Yes	Yes	Yes
Village FEs	Yes	Yes	Yes	Yes
Observations	594	594	594	594
F-stat (first stage)	10.90	5.93	9.44	5.22

Notes: In this table we show LIML estimates of the following specification: $Y_{iv} = \gamma + \omega \text{Number of transactions}_{iv} + \epsilon_{iv}$, where the number of transactions made by an existing account holder in Columns 1 and 3 is instrumented with the large windfall transfer made in 2015, while in Columns 2 and 4 we also use the direct deposit as instrument. In Panel A, the dependent variable equals 1 for respondents who opened Pafupi accounts and 0 otherwise. In Panel B, the dependent variable equals 1 for respondents who reported trusting NBS and 0 otherwise. In Panel C, the dependent variable equals 1 for respondents who correctly reported that regular fees are between MK 350 and MK 450 per month, and 0 otherwise. OLS regressions. Control group corresponds to individuals that did not receive the transfer in 2015 nor a show-up bonus in 2016. We also include village fixed-effects in all regressions. When indicated, covariates are the variables in Panel A of Table 1, namely male, age, education of household head, household size, housing quality score, value of assets, asset score, value of animals, animal score and acres owned. See Appendix Table A2 for definition of each variable. Anderson-Rubin confidence intervals calculated from `condivreg` in Stata.

Appendix Table A7: Determinants of owning a Pafupi account with new sample

	(1)	(2)	(3)
	Opened Pafupi account (1=Yes)		
Existing account holder (2012) (<i>Old</i>)	-0.190 (0.048)	-0.176 (0.050)	-0.174 (0.051)
Transfer (2015) (<i>T</i>)	0.138 (0.049)	0.136 (0.049)	0.140 (0.049)
Direct deposit (2015) (<i>DD</i>)	0.064 (0.049)	0.074 (0.049)	0.065 (0.049)
Show-up fee (2016) (<i>B</i>)	0.081 (0.057)	0.075 (0.057)	0.079 (0.057)
High show-up fee (2016) (<i>HB</i>)	0.088 (0.039)	0.100 (0.039)	0.092 (0.039)
Delayed visit (2016) (<i>D</i>)	0.042 (0.042)	0.027 (0.042)	0.039 (0.042)
Additional bonus at branch (2016) (<i>AB</i>)	-0.036 (0.039)	-0.034 (0.039)	-0.030 (0.039)
Covariates	No	Yes	No
Village FEs	Yes	Yes	Yes
Observations	810	810	808
R-squared	0.07	0.09	0.07
Mean dep. var. control group	0.40	0.40	0.40
SD dep. var. control group	0.49	0.49	0.49
P-value: $Old + T = 0$	0.28	0.42	0.51
P-value: $Old + T + DD = 0$	0.80	0.51	0.53

Notes: In this table we show estimates of the following specification: $Y_{iv} = \alpha_v + \beta_O Old_{iv} + \beta_T T_{iv} + \beta_{DD} DD_{iv} + \beta_B B_{iv} + \beta_{HB} HB_{iv} + \beta_D D_{iv} + \beta_{AB} AB_{iv} + X_{iv}'\gamma + \epsilon_{iv}$, where *Old* is a dummy that takes value 1 if the individual is an existing NBS account holder; *T* is a dummy that takes value 1 if the individual received the transfer treatment in 2012; *DD* is a dummy if the transfer was directly deposited into the account; *B* (*HB*) is a dummy that takes value 1 if the individual was promised a show-up bonus of MK 500 (MK 1,000) for visiting the bank; *D* is a dummy that takes value 1 if the one-week window to visit the bank was delayed by three weeks; and *AB* is a dummy that takes value 1 if the individual received the extra cash during the branch visit. The vector X_{iv} contains individual-level covariates measured during the 2016 survey. The variable ϵ_{iv} is a mean-zero error term. Dependent variable equals 1 for respondents who visited the NBS branch and 0 otherwise. Dependent variable equals 1 for respondents who opened Pafupi accounts and 0 otherwise. We also include village fixed effects in all regressions. When indicated, covariates are the variables in Panel A of Table 1, namely male, age, education of household head, household size, housing quality score, value of assets, asset score, value of animals, animal score, acres owned. OLS regressions. In column 3, we use a sample matched on the vector of observable characteristics in column 2, restricting to the common support of the estimated propensity score. Robust standard errors. See Appendix Table A2 for definition of each variable. Control group corresponds to new subjects offered no show-up bonus.

Appendix: Experimental scripts in 2016

A Control Subjects

Read: Thank you for participating in our program. After two years, our research project is close to finishing. NBS usually charges fees of MK 400 per month for the type of savings account you have. The research project has been paying those fees on your behalf since you opened the account. Now, that subsidy is ending. Starting in May, we will no longer pay your account fees. That means that NBS will begin to deduct MK 400 from your balance every month. If your balance gets below MK 500, NBS will close the account. If you close your account before May 15th, no fees will be deducted. You need to visit the bank to close the account. After you close the account, you will receive any money that was in your account.

Read: Zikomo kwambiri pakutenga nawo mbali mukafukufuku wathu. Patadutsa zaka ziwiri, kafukufuku wathu akupita kumapeto. NBS imadula ndalama ya pa mwezi yokwana MK 400 mwezi uli wonse pa mtundu wa akaunti mulinayoyi. Ngati mbali yaka fukufuku wathu tankhala tikukupelekerani ndalama imeneyi mmalo mwanu kuchokera nthawi imene tinakutsekulirani akauntiyi. Tsopano, kukulipirirani ndalama kumeneku tikusiya. Kuyambira mwezi wa May sitidzakulipiriraninso ndalama imene NBS imadula pa mwezi. Kutanthawuza kuti NBS idzayamba kukudulani ndalama yokwana MK 400 pa ndalama yanu yotsala mu akaunti mwanu mwezi uliwonse. Ngati ndalama yotsala idzachepele MK500, NBS idzatseka akaunti yanu. Ngati mutseke akaunti yanu pasanafike pa15 May, palibe ndalama ili yonse imene itadzadulidwe. Mukuyenera kupita ku banki kukatseka akaunti yanu. Mukamaliza zonse zofunikira kutseka akaunti yanu, adzakupatsani ndalama yanu yonse imene inatsala mu akaunti mwanu.-

You have three choices. The first option is to keep your account, and pay the fees. You could still keep money in your account, and make withdrawals and deposits without paying anything extra. Make sure that your balance does not get below MK 500, because then NBS would close your account. If you choose this option, you do not need to do anything. Your account will stay open, but fees will be deducted starting in May.

Muli ndi zisankho zitatu. choyamba, ndi kusungabe akaunti yanu ndikumapitiliza kulipira ndalama ya pa mwezi. mukhonza kumasungitsabe ndalama mu akaunti yanu, ndikupatapa, kusunga osalipira kena kalikonse kapamwamba. Mungowonetsetsa kuti ndalama yotsala mu akaunti yanu isachepele MK 500 chifukwa ikatero ndekuti NBS idzatseka akaunti yanu. Mukasankha chisankho choyambachi simukuyenera kuchita chili chonse. akaunti yanu idzakhalabe ikugwirabe ntchito, koma kuyambira mu mwezi wa May NBS idzayamba kumakudulani ndalama yapa mwezi.

The second option is to close your account. So long as you close your account before May

15th, no fees will be deducted. You need to visit the bank to close the account. Someone from IPA will be at the branch until May 15th to help you with the paperwork. After you close the account, you will receive any money that was in your account.

Chachiwiri ndi kutseka akaunti yanu. Pokha pokha ngati mwatseka akaunti yanu pasanafike pa May 15, NBS sidzakudulani ndalama yapamwezi. Mukuyenera kudzapita ku banki kukatseketsa akaunti yanu. Mmodzi mwa wogwira naye ntchito azidzakhala panja pa NBS banki mpaka pa 15 May kudzakuthandizani. Mukadzamaliza zonse, muzalandira ndalama yonse imene inatsala mu akaunti.

The third option is to switch to a different type of account. NBS recently created an account called Pafupi. This account does not have any monthly fees, but there are charges for transactions. If you switch to this type of account before May 15th, you will not be charged any monthly fees for keeping your money in the bank. However, you will be charged MK 150 every time you withdraw money from the account. You can still switch after May 15th, but NBS will charge monthly fees until you complete the paperwork to switch account types. If you want to change to the Pafupi account, you need to come to the branch. You will need to pay a fee of MK 200 to open a Pafupi account, and pay MK 1100 for an ATM card to use with the account. Someone from IPA will be there until May 15th to help you with the paperwork.

Chisankho cha chitatu ndi kusinthira ku mtundu wina wa akaunti. NBS posachedwapa inayambitsa mtundu wa akaunti wina wotchedwa Pafupi. Akaunti imeneyi, simakhala ndi ndalama yodulidwa pa mwezi, koma pali ndalama imene amadula ukamagwiritsa ntchito. Mukasintha kupita ku akaunti imeneyi pasanafike pa 15 May, simuzadulidwa ndalama ya pa mwezi chifukwa chosunga ndalama ku banki. Komabe muzadulidwa MK150 nthawi iliyonse muzikatapa ndalama ku akauntiyi. Mukhozabe kuzasintha patadutsa pa 15 May, koma dziwani kuti NBS izakudulani ndalama ya pa mwezi mpaka mutazamaliza zonse zofunikira kusintha akaunti. Ngati mukufuna kusinthira ku Pafupi akaunti, mukuyenera kubwera ku banki. Mudzapeleka MK200 kuti mutsekure akaunti ya pafupi, ndikupereka MK1,100 ya khadi ya ATM yomagwiritsira ntchito. Ndipo m'modzi mwa ogwira naye ntchito wochokera ku IPA azakhala ali kumeneko mpaka pa 15 May kuti akuthandizeni.

Do you have any questions? (Pause)

Ok. Then, I would like to know a little bit about your plan. You can change your mind.

If you visit the bank, will you leave your account open, change to a Pafupi account, or close your account entirely?

Muli ndi funso? (pause)

Chabwino. tsopano, ndikufuna kudziwa pang'ono za ma pulani anu. Mukhonza kusintha maganizo.

Ngati mungapite ku banki, mukasiyabe akaunti yanu ikhale yotsekula, kusintha ndikut-

sekula ya pafupi, kapena kutsekelatu akaunti?

B Treatment Subjects

Read: Thank you for participating in our program. After two years, our research project is close to finishing. NBS usually charges fees of MK 400 per month for the type of savings account you have. The research project has been paying those fees on your behalf since you opened the account. Now, that subsidy is ending. Starting in May, we will no longer pay your account fees. That means that NBS will begin to deduct MK 400 from your balance every month. If your balance gets below MK 500, NBS will close the account.

Read: Zikomo kwambiri pakutenga nawo mbali mukafukufuku wathu. Patadutsa zaka ziwiri, kafukufuku wathu akupita kumapeto. NBS imadula ndalama ya pa mwezi yokwana MK 400 mwezi uli wonse pa mtundu wa akaunti mulinayoyi. Ngati mbali yaka fukufuku wathu tankhala tikukupelekerani ndalama imeneyi mmalo mwanu kuchokera nthawi imene tinakutsekulirani akauntiyi. Tsopano, kukulipirirani ndalama kumeneku tikusiya. Kuyambira mwezi wa May sitidzakulipiriraninso ndalama imene NBS imadula pa mwezi. Kutanthawuza kuti NBS idzayamba kukudulani ndalama yokwana MK 400 pa ndalama yanu yotsala mu akaunti mwanu mwezi uliwonse. Ngati ndalama yotsala idzachepele MK500, NBS idzatseka akaunti yanu. Ngati mutseke akaunti yanu pasanafike pa15 May, palibe ndalama ili yonse imene itadzadulidwe. Mukuyenera kupita ku banki kukatseka akaunti yanu. Mukamaliza zonse zofunikira kutseka akaunti yanu, adzakupatsani ndalama yanu yonse imene inatsala mu akaunti mwanu.-

You have three choices. The first option is to keep your account, and pay the fees. You could still keep money in your account, and make withdrawals and deposits without paying anything extra. Make sure that your balance does not get below MK 500, because then NBS would close your account. If you choose this option, you do not need to do anything. Your account will stay open, but fees will be deducted starting in May.

Muli ndi zisankho zitatu. choyamba, ndi kusungabe akaunti yanu ndikumapitiliza kulipira ndalama ya pa mwezi. mukhonza kumasungitsabe ndalama mu akaunti yanu, ndikupatapa, kusunga osalipira kena kalikonse kapamwamba. Mungowonetsetsa kuti ndalama yotsala mu akaunti yanu isachepele MK 500 chifukwa ikatero ndekuti NBS idzatseka akaunti yanu. Mukasankha chisankho choyambachi simukuyenera kuchita chili chonse. akaunti yanu idzakhalabe ikugwirabe ntchito, koma kuyambira mu mwezi wa May NBS idzayamba kumakudulani ndalama yapa mwezi.

The second option is to close your account. So long as you close your account before May 15th, no fees will be deducted. You need to visit the bank to close the account. Someone from IPA will be at the branch to help you with the paperwork. After you close the account,

you will receive any money that was in your account.

Chachiwiri ndi kutseka akaunti yanu. Pokha pokha ngati mwatseka akaunti yanu pasanafike pa May 15, NBS sidzakudulani ndalama yapamwezi. Mukuyenera kudzapita ku banki kukatseketsa akaunti yanu. Mmodzi mwa wogwira naye ntchito azidzakhala panja pa NBS banki mpaka pa 15 May kudzakuthandizani. Mukadzamaliza zonse, muzalandira ndalama yonse imene inatsala mu akaunti.

The third option is to switch to a different type of account. NBS recently created an account called Pafupi. This account does not have any monthly fees, but there are charges for transactions. If you switch to this type of account before May 15th, you will not be charged any monthly fees for keeping your money in the bank. However, you will be charged MK 150 every time you withdraw money from the account. You can still switch after May 15th, but NBS will charge monthly fees until you complete the paperwork to switch account types. If you want to change to the Pafupi account, you need to come to the branch. You will need to pay a fee of MK 200 to open a Pafupi account, and pay MK 1100 for an ATM card to use with the account. Someone from IPA will be there to help you with the paperwork.

Chisankho cha chitatu ndi kusinthira ku mtundu wina wa akaunti. NBS posachedwapa inayambitsa mtundu wa akaunti wina wotchedwa Pafupi. Akaunti imeneyi, simakhala ndi ndalama yodulidwa pa mwezi, koma pali ndalama imene amadula ukamagwiritsa ntchito. Mukasintha kupita ku akaunti imeneyi pasanafike pa 15 May, simuzadulidwa ndalama ya pa mwezi chifukwa chosunga ndalama ku banki. Komabe muzadulidwa MK150 nthawi iliyonse muzikatapa ndalama ku akauntiyi. Mukhozabe kuzasintha patadutsa pa 15 May, koma dziwani kuti NBS izakudulani ndalama ya pa mwezi mpaka mutazamaliza zonse zofunikira kusintha akaunti. Ngati mukufuna kusinthira ku Pafupi akaunti, mukuyenera kubwera ku banki. Mudzapeleka MK200 kuti mutsekure akaunti ya pafupi, ndikupereka MK1,100 ya khadi ya ATM yomagwiritsira ntchito. Ndipo m'modzi mwa ogwira naye ntchito wochokera ku IPA azakhala ali kumeneko mpaka pa 15 May kuti akuthandizeni.

We will give you a cash payment of MK YYYY (individual fee) in cash if you visit the IPA staff person at the NBS branch starting XXX. You will have 5 business days (days that the branch is open) to visit starting XXX. You should arrive in the morning. You do not have to make any changes to your account to get this payment. We will give you the cash even if you come to the branch but do not make any changes to your account. But, the IPA employee will be happy to help you with the paperwork at that time if you want to close or change your account. To get the payment, you have to come yourself, not send someone on your behalf. You also have to come during your appointment window, not before or after. If you come at another time, you will not get the payment.

Tidzakupatsani ndalama yokwana MK YYYY (individual fee) pa manja ngati mudzafike pa NBS kwa m'modzi mwa amene tikugwira naye ntchito kuyambira pa XXX. Muli ndi

masiku 5 ogwira ntchito amene bulanchi imakhala yotsegula kuti muzapite ku banki. Ndipo muzapite m'mawa. Simukuyenera kusintha china chilichonse pa akaunti yanu kuti mulandire ndalama imeneyi. Tidzakupasani ndalama pa manja ngakhale mutabwera ku bulanchi koma osadzasintha chilichonse ku akaunti yanu. Kuti mulandire ndalama imeneyi mukuyenera kuzabwera nokha, osatuma wina m'malo mwanu. Mukuyenera kuzabwera nthawi imene munauzidwa, musazachedwe kapena kufulumira. Mukazabwera nthawi ina, simuzalandira ndalamayi.

Please consider these options, and then decide what is best for you.

Ok. Then, I would like to know a little bit about your plan. You can change your mind, but knowing your plan helps us prepare the paperwork to make the process easier for you. Please tell me what you expect to do. Will you visit the bank, or no?

Chonde tengani nthawi yanu poganizira zisankho zanu. Muli ndi funso? (pause)

Chabwino. tsopano, ndikufuna kudziwa pang'ono za ma pulani anu. Mukhonza kusintha maganizo, kungoti kudziwa ma pulani anu kutithandiza kuti tikonzekere kudzakuthandizani mosavuta. Chonde ndiwuzeni chimene mukuwona kuti mupanga? Kodi mupita ku banki kapena ayi?