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Experience in financial decision-making: Field evidence from Malawi ☆

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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. Using estimates from a structural model, we find that the different propensity to switch is better explained by differences in the valuation of the new account rather than differences in the cost of switching. Experience using financial products can thus improve financial decision making.

Over the past two decades, an estimated 1.2 billion adults have gained access to basic financial accounts (Demirguç-Kunt et al., 2018). While greater financial inclusion has brought significant benefits (see Burgess and Pande, 2005; Kast and Pomeranz, 2014; Jack and Suri, 2014; Batista and Vicente, 2018; Dupas et al., 2018; Schaner, 2018; Breza and Chandrasekhar, 2019; Callen et al., 2019), it has also raised concerns that individuals are acquiring products that do not suit their needs, especially among those with limited financial capabilities (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 DellaVigna, 2009; Campbell et al., 2011 for reviews).

Policymakers have tried to improve consumer knowledge with financial literacy programs and legislation aimed at increased disclosure and transparency, but these literacy efforts have often proven ineffective (see Cole et al., 2011 and Hastings et al., 2013; Miller et al., 2014 for reviews) and disclosure regulation is typically poorly enforced (Garz et al., 2020).

Before considering the implementation of policies or the enactment of new regulation, it is important to ask whether the simple experience in using financial products can improve financial decision-making. While critical, however, experience obtained through ordinary usage is typically endogenous, making causal inference difficult.

In this paper we combine two field experiments to understand how experience accumulated through usage of a savings account affects the decision to switch to a cheaper alternative when it becomes available. We present a sample of bank account holders from 14 villages in southern Malawi with three choices: to keep their existing account but incur higher monthly fees, to close their existing account and receive the remaining balance, or to switch to a new account with lower fees and transfer the balance from the old account to the new.

In 2012, as part of a previous study, individuals were offered fully subsidized basic savings accounts with a local bank. In 2015, some of those who had opened accounts were randomly chosen to receive MK 25,000 windfall payments (USD 160 using the 2015 purchasing power parity [PPP] exchange rate; see Brune et al., 2017 for details). This transfer did not have persistent effects on saving 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 subjects had in using their accounts.

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In 2016, the previous research project concluded and subsidies for monthly account maintenance fees were discontinued. Starting in May 2016, account holders had to pay a monthly maintenance fee that had previously been covered by funds raised by the researchers and paid directly to the bank. Concurrently but independently, the bank introduced a new account called the Pafupi account. This account had a different fee structure with withdrawal fees, but no monthly maintenance fees. It also required the purchase of an ATM card. Based on the number of transactions that subjects made between 2012 and May 2016, the Pafupi accounts were less expensive than the original (basic) accounts for everyone in the sample provided their usage patterns persisted and they planned to keep the account open for at least another four months.

In March and April 2016, the research team visited the homes of study subjects who owned savings accounts, and asked them to come to the bank branch to make a decision about their 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. Although the Pafupi account was cheaper than the basic account given their past usage, the choice was presented in a neutral way.

The home visits were used to introduce exogenous variation in two dimensions of the account ownership decision. First, we varied the amount of a payment for coming to the branch, which was used to lower switching costs and encourage individuals to actively decide.[2] Second, we varied the timing of when subjects were asked to visit the bank: some were asked to come within the week, while others were asked to come only after a two-week delay. This manipulation assessed whether people would fail to show up at the bank branch due to forgetfulness or inattention.

Using their choices regarding the account disposition and the treatments received in 2015 and 2016, we estimate a structural model of the benefit to each account holder of each type of account and the cost of visiting the bank. In particular, we estimate a generalized extreme value model that does remarkably well at predicting the share of individuals failing to visit the bank, or visiting and either keeping the basic account, switching to a Pafupi account, or closing their account entirely.

Individuals who received transfers in 2015 were more likely to switch to the Pafupi account than those who did not. Our estimates indicate that is explained by differences in how much they value the new Pafupi account, not by differences in the cost of switching. While all subjects appear to value the Pafupi accounts more than the old accounts, those who received transfers in 2015 value the Pafupi accounts more than those who did not receive transfers.

We also find that transfer-induced experience with the basic account increased both trust in the bank and knowledge of the features of the basic account. These results taken together suggest that experience with the basic account helped individuals learn about its features and reliability, enabling subjects to compare new and old accounts and to switch to the cheaper one when given the opportunity to do so.

Finally, we provide some evidence against other explanations for the switch of accounts, such as experimenter demand effects or the belief that switching to the Pafupi account may increase the chances of receiving another transfer from the research team.

Our paper contributes to two strands of the literature. First, it adds to the literature on financial decision-making and in particular on the optimal switching of accounts (Samuelson and Zeckhauser, 1988; Madrian and Shea, 2001). When pecuniary and effort costs are large (Burnham et al., 2003; Madrian and Shea, 2001), they can outweigh the benefits from switching. Both lab and field experiments have documented this status quo bias. Samuelson and Zeckhauser (1988) find 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 regarding the selection of medical plans by Harvard employees and report that new employees are more likely to choose a newly introduced medical plan than existing employees even though 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). Madrian and Shea (2001) study the enrollment of employees of a large firm in 401(k) plans before and after the firm implemented automatic enrollment for new employees. They find that while participation is significantly higher under automatic enrollment, tenure and income (i.e., proxies for financial literacy) also correlate with participation in the 401(k) plan. Since participation requires learning about the plan features and evaluating the various savings options, employees who are financially literate are better able to navigate these complex decisions. Indeed, Samuelson and Zeckhauser (1988), Tversky and Shafir (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).

Our paper also relates to a literature underscoring the role of experience with financial products. Most directly related, Breza et al. (2020) implement a field experiment with garment factory workers in Bangladesh and show that workers whose income is directly deposited into a bank or mobile money account use the account more and end up paying less per transaction. Factory workers induced to use their accounts by directly depositing their income into them rely initially on agents to make transactions but with experience they learn to make transfers on their own. In contrast, subjects in our study induced to use their account by receiving a large transfer learn to make better financial decisions.

Brown et al. (2019) show that consumers who are exposed to formal accounts earlier in life have better credit scores and financial outcomes later in life. Finally, Bachas et al. (2019) show that after a period of building trust in the financial provider, the rollout of debit cards to beneficiaries of a cash transfer program in Mexico led beneficiaries to save more in the bank.[3]

2. Experimental design

In July 2012, we randomly selected and interviewed 872 households from 14 villages surrounding the Mulanje market in southern Malawi.[4] All these villages are located within six kilometers of the local NBS branch.[5] These households were offered assistance in opening a basic savings account at NBS and MK 500 (USD 2.72 using the 2016 PPP exchange rate) was deposited into their account to cover the minimum balance. This minimum balance was enforced in the sense that the bank

[2] While the cost of switching items in laboratory experiments is zero, in our setting, there are time and monetary costs associated with visiting the branch. These are however equal regardless of which account is chosen, and randomly offset for most customers.

[3] A related literature studies how experience can attenuate behavioral anomalies such as the endowment effect, another manifestation of the status quo bias where individuals are reluctant to part with their endowment (Thaler, 1980), and focus on experience acquired by transacting in the market rather than by gaining familiarity with the product (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., 2021).

[4] Malawi is a country in eastern Africa with relatively low levels of financial inclusion. According to the 2017 Global Findex database (Demirguç-Kunt et al., 2018), 34 percent of adults had bank accounts or mobile money but only nine percent had formal savings.

[5] NBS Bank, formerly known as New Building Society is one of the 10 commercial banks operating in Malawi, with a network of 36 branches throughout the country.

would deny any withdrawal that would bring the balance below MK 500. In addition, the monthly account maintenance fees of MK 400 per month were paid by the research team directly to the bank and were thus not deducted from subjects' balances. Because the bank did not charge for transactions, the subsidized basic account offered in the study was free to customers.[6] The take-up rate for these free accounts was 85 percent.

From the 747 households that opened subsidized accounts, 600 were randomly chosen in April 2015 to participate in another field experiment that induced account usage. That 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 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 a final experiment that removed the subsidy for the recurring monthly maintenance fees of the basic account. We offered subjects the option to pay the fees themselves, close their accounts, or transfer their balances to the new Pafupi account. Of the 747 households that opened the subsidized accounts in 2012, we were able to contact and visit 594 households in 2016. Unfortunately, we find significantly lower attrition among treated individuals in the 2015 experiment.[7]

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. Keep the existing account. 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 was the default option.
2. Close the account and receive the full account balance, including the minimum balance of MK 500 initially deposited by the research team, in cash. Accounts closed by the end of April 2016 would not accrue any monthly charges.
3. Transfer the 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 pay account opening fee of MK 200 and to purchase an ATM card for MK 1,100 (MK 1,300 in total or USD 7 using the 2016 PPP exchange rate).

Enumerators presented these options using a neutral frame. Table A.1 reports the timeline of activities and Table A.2 shows the features of the basic and Pafupi accounts before and after May 2016. Since NBS required households to visit the branch in order to close the account or transfer the balance to a Pafupi account, the field team 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 provided some individuals with cash incentives to visit the branch within a 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 remainder 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 cash incentive (or bonus), and this was framed as a strategy to manage the flow of visitors. By timing the home visits just days before subjects went to the branch, these visits constituted teachable moments, as individuals received information when they needed to make an educated decision. The length of the window for visiting the branch was set at one week regardless of waiting period. 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 cross-cutting randomization resulted in five treatment groups: a no-bonus or 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 receive MK 1,500 (USD 8 using the 2016 PPP exchange rate), a larger amount than the promised show-up bonus. This amount was enough to pay for the MK 1,300 cost to open the Pafupi account and therefore relaxed a possible liquidity constraint. The offer, however, did not contain any explicit or implicit suggestion about what to do with the savings account. 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 have possibly 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 characteristics and savings-related behaviors of existing account holders who were assigned to the three different treatments in the transfer experiment of 2015. Table A.3 contains the definition of variables. We report the p-value of the joint test of equal means

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

[7] In particular, individuals who received transfers via cash (direct deposit) are 15.2 (15.3) percentage points more likely to be found during the home visits compared to those who did not receive a transfer that had an overall attrition rate of 30.2 percentage points. These percentages are smaller when we consider the sample of 600 individuals that participated in the 2015 experiment. While the control group had an attrition rate of 23.6 percentage points, those that received transfers via cash (direct deposit) were 8.6 (8.8) percentage points more likely to be found. This lower attrition using the sample of the 2015 experiment suggests that more frequent contact with the households reduced attrition.

Table 1
Balancing tests: Transfer treatments of 2015.

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

across all three categories in column 5, and we do not expect (and do not observe) differences in time-invariant characteristics such as age and gender of the respondent, that could not have changed as a result of treatment. The *p*-value of the F-test that all characteristics in panel A are jointly zero is 0.480. Despite the differential attrition, we take comfort in the fact that account holders in the treatment and control group appear to be similar.

In panel B, households that received the transfer did not expect more withdrawals in the next three months than those who did not receive the transfer (*p*-value is 0.227). Past and predicted usage for both samples is too limited to make the basic account worthwhile given the fee structure. 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 if they planned to keep it for four months. Panel B of Table 1 also reports account usage six months after the 2015 transfer, using administrative data. We find that individuals who 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 were also more likely to correctly report the fees for the basic account and to trust NBS more. All these variables were expected to

be affected by treatment. While other variables in panel B could also have changed with the transfer, we find that they did not: excluding the percentage of individuals who correctly predicted the fees in the basic NBS account, the number of transactions in the six and 12 months after the large transfer, and the percentage who trust NBS, the p-value of the F-test that the remaining characteristics in panel B are jointly zero is 0.419. In particular, while households that received the transfer (particularly in cash) seem to have larger balances in 2016 than those without the transfer, these differences are not statistically significant (p-value is 0.375). The structural model described in the next section uses balance data to explain the decision of account ownership and for this reason it can only be estimated with individuals with available balance data. Although we requested balance data for the full sample of 747 individuals with accounts, the bank only provided data for the sample of 694 that received the home visit. Of those, 596 had valid balance data and this is the sample we use in the structural estimation.

Table A.4 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 balanced.

4. Empirical strategy and results

Consider an account holder deciding what to do with the account. We assume that the utility that account holder i obtains from alternative j (i.e. U_{ij}), which is fully known to the decision-maker, can be decomposed into a part known to the researcher V_{ij} and an unknown part e_{ij} such that $U_{ij} = V_{ij} + e_{ij}$. We assume further that the unobserved part of the utility (to the researcher) for all alternatives is jointly distributed as a generalized extreme value.

In particular, we assume that the set of alternatives can be partitioned into two subsets or nests that depend on whether the account holder decides to visit the bank. If the bank is visited, the account holder can keep the old account, close the account or open a Pafupi account. For any two of these three choices, we assume that the ratio of probabilities is independent of existence of other alternatives. That is, there is no correlation between alternatives and the independence from irrelevant alternatives (IIA) holds. Alternatively, the only option available to account holders that do not visit the bank is to keep the old account. In contrast to the assumption of zero correlation between alternatives when the bank is visited, we allow for some correlation between any of the alternatives when visiting the bank and the choice of keeping the old account when the bank is not visited. We therefore estimate a nested logit model with the tree diagram shown in Fig. A.1.

The known part V_{ij} for the different alternatives can be written as the value of the account chosen (or the balance amount if the account is closed) and the net benefit from visiting the bank if a bank visit occurs:

$$\begin{aligned} V_{in} \equiv V_i(\text{No bank visit}) &= v_{i0}(m) \\ V_{i0} \equiv V_i(\text{Bank visit, kept old account}) &= b - c_i + \delta_{i0} v_{i0}(m) \\ V_{ix} \equiv V_i(\text{Bank visit, closed account}) &= b - c_i + \delta_{ix} m \\ V_{i1} \equiv V_i(\text{Bank visit, opened Pafupi}) &= b - c_i - c_1 + \delta_{i1} v_{i1}(m) \end{aligned}$$

According to Panel B of Table 1, the 2015 transfer induced account usage among recipients which could have led to better knowledge of the terms of the account and higher trust in NBS. As a result, we let the utility that account holder i derives from an account depend on the experimental group in 2015 g and on the balance m in the account. The experimental group in 2015 is $g = C$ if account holder i did not receive a transfer, $g = T$ if account holder i received the transfer in cash and $g = D$ if the transfer received was directly deposited into the account.

In particular, we parameterize the value from the old account as $v_{g0}(m) = \alpha_{g0} + \beta_{g0} m$, making explicit that the value of the account can be different depending on the treatment $g = C, T$ or D received in 2015. Similarly, the utility from opening a Pafupi account is $v_{g1}(m) = \alpha_{g1} + \beta_{g1} m$. The term $b - c_i$ is the net benefit from visiting the bank, as the account holder receives the cash incentive b to visit the bank but must forgo cost c_i which also depends on i's experimental group g in 2015.[8] The higher account usage induced by the 2015 treatment could have lowered both the monetary cost of visiting the bank if participants discovered a cheaper mode of transportation or a more convenient route, and/or lowered its psychological cost if account holders that received transfers became more familiar with bank procedures or staff. We thus allow the 2015 treatment to affect the valuation of the accounts as well as the cost of going to the bank and we later test whether valuations and costs are the same across experimental arms.

In case of opening a Pafupi account, the individual must pay MK $c_1 = 1,300$. Finally, $\delta_{ij} = 1$ if the account holder was asked to come to the bank the week following the visit, while it takes value $\delta_{ij} = \delta_j \in (0, 1]$ if asked to come to the bank after the two-week delay, where we allow δ to depend on choice j, that is, on whether the account holder keeps the old account ($j = 0$), closes the account ($j = x$) or opens a Pafupi account ($j = 1$).

Intuitively, the two different treatments implemented during the home visits of the 2016 experiment help identify different parameters of the model: the show-up payment helps identify the cost of visiting the bank c_i (along with whether they received the transfer in 2015), while the timing of when they should visit the bank helps identify the discount parameters δ_{ij}. In addition, the balance data and whether they received the transfer in 2015 identify the parameters governing the value of the two accounts $v_{i0}(m)$ and $v_{i1}(m)$.

The probability of each choice can be written as:

$$Pr(V_{in}) = \frac{e^{V_{in}/\sigma}}{D} \quad \text{where} \quad D = e^{V_{in}/\sigma} + \left(e^{V_{i0}/\sigma\lambda} + e^{V_{ix}/\sigma\lambda} + e^{V_{i1}/\sigma\lambda}\right)^{\lambda}$$

and

$$Pr(V_{ij}) = \frac{e^{V_{ij}/\sigma\lambda}\left(e^{V_{i0}/\sigma\lambda} + e^{V_{ix}/\sigma\lambda} + e^{V_{i1}/\sigma\lambda}\right)^{\lambda-1}}{D} \quad \text{for} \quad j = 0, x \quad \text{or} \quad 1.$$

The parameter $\lambda \in [0, 1]$ measures the degree of independence in unobserved utility among the choices when visiting the bank. If $\lambda = 1$, then this nested logit model reduces to the standard multinomial logit model and suggests that the correlations over alternatives are all zero. Since the cash bonus b (and c_1) enter the utility linearly, the scale parameter σ is identified and interpreted as the standard deviation of the error term. We thus estimate 6 α and 6 β parameters (one for each of the 3 experimental groups in 2015 and the 2 accounts), 3 δ parameters, 3 costs c_g of visiting the bank, for $g = C, T$ or D, λ and the scale parameter σ. Column 1 of Table 2 reports the parameter estimate for this full model and column 2 its bootstrapped standard error using 200 samples.

Intuitively, the estimation algorithm tries to find parameters such that the probabilities above match the share of individuals in the data under each choice, reported in the odd-numbered columns of Table 3.

We find that the estimated constant α in the value of the account is higher for the Pafupi account compared to the old account for all account holders, regardless of their treatment status in 2015. In addition, the α-coefficient is higher for individuals who received the transfer in 2015 ($g = T$ and $g = D$) compared to those who did not ($g = C$). We test that there is no difference between the two treated groups in the α-coefficients for each account ($\alpha_{T0} = \alpha_{D0}$ and $\alpha_{T1} = \alpha_{D1}$) and find that we cannot reject the null that they are

[8] We note that b refers to the cash incentive promised during the home visit. While some households were randomly selected to receive an additional amount (up to 1,500 MK) once they visited at the bank, the nested logit model cannot accommodate this surprise incentive in the second stage (choice of accounts). We estimate the model assuming that b includes both the amount promised during the home visit and the additional surprise incentive and we obtain similar results.

Table 2
Estimated parameters.

	(1)	(2)	(3)	(4)
	Full model		Restricted model	
	Coeff	SE	Coeff	SE
α_{C0}	0.002	0.5019	0.002	0.1022
α_{C1}	1.759	0.7072	1.763	0.1520
α_{T0}	0.220	0.3581	0.245	0.1245
α_{T1}	2.304	0.6615	2.290	0.1518
α_{D0}	0.308	0.3111		
α_{D1}	2.219	0.5590		
β_{C0}	1.593	0.3329	1.612	0.2034
β_{C1}	1.593	0.3523	1.612	0.2041
β_{T0}	1.024	0.1444	1.055	0.0713
β_{T1}	1.026	0.1590	1.062	0.0712
β_{D0}	1.030	0.1654		
β_{D1}	1.086	0.1752		
δ_0	1.000	0.0826		
δ_1	1.000	0.0000		
δ_x	0.984	0.1301		
c_C	0.760	0.2634	0.764	0.1057
c_T	0.820	0.3543	0.610	0.0972
c_D	0.370	0.1766		
λ	1.000	0.0000		
σ_ϵ	0.482	0.3718	0.490	0.0711
Log-likelihood	−645.259		−652.943	
N. Observations	569		569	

Notes: This table reports the estimated parameters of the nested logit model in columns 1 and 2 (full model) and the restricted multinomial logit model in columns 3 and 4 when the value of the account is assumed to be linear in cash balances m (that is, $v_{gj}(m) = \alpha_{gj} + \beta_{gj} m$ for $g = C, T$ and $j = 0, 1$. Standard errors are bootstrapped using 200 samples.

Table 3
Goodness of fit.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	All		Transfer						No transfer	
			All		Cash		DD			
	Data	Model	Data	Model	Data	Model	Data	Model	Data	Model
Panel A: Full Model										
No bank visit	0.249	0.248	0.209	0.208	0.275	0.275	0.143	0.143	0.333	0.333
Visited bank, kept old acct	0.183	0.184	0.170	0.170	0.145	0.145	0.194	0.194	0.211	0.216
Visited bank, closed old acct	0.088	0.087	0.087	0.087	0.083	0.083	0.092	0.092	0.089	0.085
Visited bank, opened Pafupi	0.482	0.482	0.535	0.535	0.497	0.497	0.571	0.571	0.367	0.367
Panel B: Restricted Model										
No bank visit	0.249	0.248	0.208	0.209	0.275	0.213	0.143	0.206	0.333	0.333
Visited bank, kept old acct	0.183	0.184	0.170	0.170	0.145	0.168	0.194	0.172	0.211	0.216
Visited bank, closed old acct	0.088	0.087	0.087	0.087	0.083	0.088	0.092	0.087	0.089	0.085
Visited bank, opened Pafupi	0.482	0.482	0.535	0.535	0.497	0.531	0.571	0.538	0.367	0.367

Notes: This table reports the goodness of fit of the nested logit model in Panel A and the restricted multinomial logit model in Panel B. Odd-numbered columns report the share of the sample in each category, while even-numbered columns report the model predictions. The sum across rows for a given column and panel adds up to 1. Columns 1 and 2 use the whole sample, columns 3 and 4 all individuals that received the transfer in 2015, columns 5 and 6 (columns 7 and 8) the individuals that received the transfer in cash (directly deposited to their accounts) and columns 9 and 10 the sample of individuals that did not receive a transfer in 2015.

equal (p-values are 0.826 and 0.819 for the old and Pafupi accounts, respectively). Regarding the other term in the value of the account, that is, the coefficient β multiplying the money balance m, we find little difference between accounts for a given experimental group in 2015, but individuals who did not receive transfers have higher β-parameters compared to those who received transfers, and have similar values of other parameters regardless of whether transfers were received in cash or directly deposited into the account. We test that the β-coefficients are the same across these two groups ($\beta_{T0} = \beta_{D0}$ and $\beta_{T1} = \beta_{D1}$) and cannot reject the null that they are equal (p-values are 0.978 and 0.798 for the old and Pafupi account, respectively).

We also find that the delay treatment did not have an impact on choices as we cannot reject that $\delta_0 = \delta_1 = \delta_x = 1$. In addition, while the estimated cost of going to the bank is different across the three experimental groups in 2015, we cannot reject that it is the same in both treated groups (p-value that $c_T = c_D$ is 0.272). Finally, we cannot reject the null that $\lambda = 1$. In fact, in every one of the 200 bootstrapped samples used, λ was estimated at 1.

The results for the full model suggest that we can estimate a more parsimonious multinomial logit model that pools individuals who received transfers in 2015 ($g = T$ and $g = D$) into a single treatment group, and ignores the delay treatment. The results of this model are reported in columns 3 and 4. We again find that the value of the α-coefficient is higher for the Pafupi account compared to the old account for all individuals. For the Pafupi account, individuals who received transfers in 2015 have a significantly higher α-coefficient compared to individuals who did not receive a transfer (p-value is 0.005). For the old account, the α-coefficient for individuals with a transfer in 2015 is marginally higher compared to individuals without the transfer (p-value is 0.113). The β-coefficients are very similar across accounts for people with the same 2015 transfer treatment. Individuals without a transfer in 2015 had significantly higher β-coefficients compared to those with a transfer for both accounts (p-value is 0.011 for the old account and 0.012 for the Pafupi account).

Table 4
Value of accounts.

	p5	p10	p25	p50	p75	p90	p95
m	0.500	0.500	0.500	0.675	1.500	3.293	6.177
$v_{C0}(m)$	0.808	0.808	0.808	1.091	2.421	5.312	9.963
$v_{T0}(m)$	0.773	0.773	0.773	0.958	1.828	3.720	6.764
$v_{C1}(m) - v_{C0}(m)$	1.761	1.761	1.761	1.761	1.761	1.760	1.759
$v_{T1}(m) - v_{T0}(m)$	2.048	2.048	2.048	2.049	2.055	2.067	2.086

Notes: This table reports the value of the accounts for at different percentiles in the distribution of cash balances m.

Finally, while the estimated cost of going to the bank is higher for the group that did not receive the transfer, the difference is not statistically significant (p-value is 0.211).[9]

Table 3 considers the goodness of fit of both models, reporting the share of the sample that made each of the different choices (not visiting the bank, visiting the bank and closing the old account, visiting the bank and keeping the old account, and visiting the bank and opening a Pafupi account). Odd-numbered columns report shares from the data, while even-numbered columns report predictions from the full model in Panel A and from the restricted model in Panel B. Table 3 suggests that both models can match remarkably well the share of individuals in each choice when using the full sample in columns 1 and 2, the sample of individuals given a transfer in 2015 (columns 3 and 4) or the sample of individuals without a transfer (columns 9 and 10). Because the restricted model does not use information on which individuals received the transfer in cash or directly deposited into their accounts, this model does poorly in matching the probabilities for these subsamples (columns 5–6 and 7–8 in Panel B) compared to the full model (columns 5–6 and 7–8 in Panel A).

Table 3 reports that 54 percent of the individuals who received the transfer in 2015 switched to the Pafupi account, compared to only 37 percent of individuals without the transfer. To better understand whether differences in the propensity to switch accounts between those with and without the transfer are driven by different costs of visiting the bank or different valuations of the accounts, we estimated the model from columns 3 and 4 restricting (a) the value of each account to be the same for each group (that is, $\alpha_{Cj} = \alpha_{Tj}$ and $\beta_{Cj} = \beta_{Tj}$ for $j = 0$ and 1) or (b) restricting the cost of going to the bank to be the same ($c_C = c_T$). We then construct a likelihood-ratio (LR) test with the unrestricted model in columns 3 and 4 and the one that imposes the same cost of visiting the bank and find a p-value of 0.247. We cannot reject the null that the restricted model is the same as the unrestricted one which allows the cost of visiting the bank to be different across groups, which suggests that differences across groups in the propensity to switch accounts are not driven by differences in the cost of visiting the bank. In contrast, we can reject the null that the model restricting the same value of the account for each group is similar to the unrestricted model (p-value is 0.040), suggesting that the higher propensity to switch to the Pafupi account among individuals that received the transfer in 2015 is driven by the fact that they value the Pafupi account more than those that did not receive the transfer. This result is consistent with Bachas et al. (2019), who show that the rollout of debit cards to beneficiaries of a cash transfer program in Mexico led beneficiaries to check their account balances more frequently, and consequently built trust in the bank.

Table 4 reports the value of the account for both groups of individuals at different percentiles of money balances m. First, we find that the 2015 control group value the old account more than the treated group for all values of money balances m. Second, while all 2015 treatment groups value the Pafupi account more than the old account, the difference in valuation is largest for the treated group, explaining the differences in the propensity to switch to the cheaper Pafupi account.

One might be concerned that account holders who received the transfer may have switched to the Pafupi account in the belief that doing so would increase the chances of receiving another transfer from the research team. Two arguments oppose this interpretation. First, enumerators told individuals that subsidies were being discontinued because the research project (also responsible for the transfers) was ending and had used all of its funding. 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 their accounts compared to those who had not received transfers (the p-value is 0.770).

Alternatively, one could argue that account holders who received transfers may have switched to Pafupi accounts because they expected to make fewer withdrawals and thus correctly identified the Pafupi account as being more suited to their needs. While this explanation aligns 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 as 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, as long as 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 previous study of subsidized bank accounts provided a unique opportunity to examine the role of experience in shaping financial decisions. From 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 they 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 previously subsidized maintenance fees, closing their accounts entirely, or switching to a new type of account (Pafupi) with a cheaper fee structure. Importantly, based on the number of transactions individuals had made in the past, the new Pafupi account was cheaper than the original account for everyone in the sample as long as their usage patterns continued and they planned to keep the account for at least four months.

While 54 percent of the individuals who received transfers in 2015 switched to the Pafupi account, only 37 percent of individuals without transfers did so. We estimate a multinomial logit model of account

[9] Table A.5 replicates columns 3 and 4 of Table 2 and reports a version of the model where the value of each account is quadratic in money balances m. In particular, $v_{gj}(m) = \alpha_{gj} + \beta_{gj}m + \gamma_{gj}m^2$ for $g = C, T$ and $j = 0, 1$. We find that the quadratic terms γ of this extended model are not statistically different from zero. In addition, bootstrapped standard errors for this model tend to be higher than in the model where the value of the accounts is linear in cash balances m. We thus use the parameterization that assumes a linear value of the account as our preferred specification.

Table A.1
Timeline of activities.

Season/Date	Activity
Previous experiments	
July 2012	Offer of fully subsidized (old) savings accounts
April 2015	Sub-sample randomly chosen to receive windfall payment
Current experiment	
March/April 2016	Baseline survey to active account holders. Offer of cash incentives to come to the bank and announcement of window for visit. Extra show-up cash incentives for some households that visited the bank. Account holders choose between closing the account, keeping the old account (and pay fees) or the new Pafupi account.
May 2016	Subsidy for old account ends. NBS administrative data on balances in March 2016 is collected for sample successfully interviewed at baseline.

Table A.2
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

disposition allowing the cost of visiting the bank and the valuation of both the old and new accounts to vary by the experience of the account-holder. We find that differences in the propensity to switch accounts is not driven by differences in the cost of visiting the bank but by the fact that individuals that received transfers in 2015 value the Pafupi account more than those who did not. We conclude that individuals who were induced to use the basic account became familiar with it and subsequently switched to the cheaper Pafupi option when presented with a choice.

While policymakers frequently consider active policies to broaden financial inclusion using financial literacy campaigns, 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 experience can raise financial awareness and improve financial decision making.

Data availability

Data will be made available on request.

Appendix. Experimental scripts in 2016

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

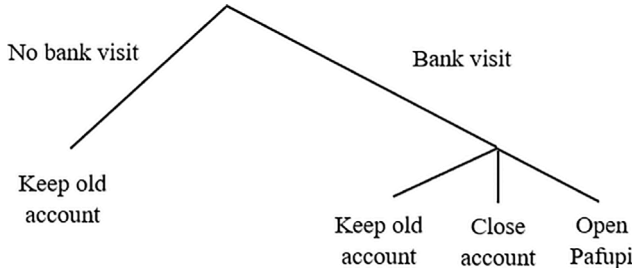

Fig. A.1. Decision tree.

pa mtundu wa akaunti mulinayoyi. Ngati mbali yaka fukufuku wathu tankhala tikukupelekerani ndalama imeneyi mmalo mwanu kuchokera nthawi imene tinakutsekulirani akauntiyi. Tsopano, kukulipiriranindalama 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,

Table A.3
Description of variables.

Variable	Description
Individual characteristics	
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
Savings-related behavior	
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 the monthly fee for basic account ranges between MK 350 and MK 450, 0 otherwise. The correct answer is MK 400.
Expected withdrawals (next 3 months)	Number of withdrawals an individual is expected to make in the three 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 three 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

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 1,100 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 ndikutsekula ya pafupi, kapena kutsekelatu akaunti?

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

Table A.4
Balancing tests: Account choice treatments of 2016.

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

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

Table A.5
Estimated parameters.

	(1) Linear value	(2)	(3) Quadratic value	(4)
	Coeff	SE	Coeff	SE
α_{C0}	0.002	0.1022	0.362	0.2190
α_{C1}	1.763	0.1520	2.088	0.2493
α_{T0}	0.245	0.1245	0.415	0.1616
α_{T1}	2.290	0.1518	2.545	0.3351
β_{C0}	1.612	0.2034	1.394	0.2675
β_{C1}	1.612	0.2041	1.453	0.3526
β_{T0}	1.055	0.0713	1.007	0.1351
β_{T1}	1.062	0.0712	1.026	0.1467
γ_{C0}			0.026	0.1596
γ_{C1}			0.025	0.1553
γ_{T0}			0.004	0.0075
γ_{T1}			0.004	0.0076
c_C	0.764	0.1057	0.801	0.1236
c_T	0.610	0.0972	0.646	0.0924
σ_ϵ	0.490	0.0711	0.591	0.2349
Log-likelihood	−652.943		−651.846	
N. Observations	569		569	

Notes: This table reports the estimated parameters of the multinomial logit model when the value of the account is assumed to be linear in cash balances m (that is, $v_{gj}(m) = \alpha_{gj} + \beta_{gj}m$ for $g = C, T$ and $j = 0, 1$ in columns 1 and 2) or quadratic ($v_{gj}(m) = \alpha_{gj} + \beta_{gj}m + \gamma_{gjm^2}$ for $g = C, T$ and $j = 0, 1$ in columns 3 and 4). Standard errors are bootstrapped using 200 samples.

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 1,100 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?

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