

Online Appendix:

Why Do Defaults Affect Behavior: Experimental Evidence From Afghanistan
Joshua Blumenstock, Michael Callen, and Tarek Ghani

List of Appendices

A	Impacts on Total Savings	3
B	Present Bias and the Default Effect	6
C	Additional Tests of Robustness	8
C.1	Robustness of Main Effects	8
C.2	Measurement Error in Survey Data	8
D	Experimental Scripts	36
D.1	Financial Consultation	36
D.2	Survey instrument (selected questions)	38
D.3	Present Bias Elicitation	44

List of Appendix Figures

A1	Switching behavior over time	9
A2	M-Pasandaz reminder message	10
A3	Employee perceptions of M-Pasandaz	11
A4	Employee uses and plans for M-Pasandaz savings	12

List of Appendix Tables

A1	Default Savings Effects in Related Literature	13
A2	Summary Statistics	14
A3	Self-reported Reasons for Switching Contribution Rates	15
A4	The Default Effect on Robustness to Withdrawing to Exit the Account	16
A5	The Default Effect on Participation and Contribution (as of July 15)	17
A6	The Default Effect: Heterogeneity by Salary Quartile	18
A7	The Default Effect on Household Savings	19
A8	The Default Effect on Asset Ownership	20
A9	The Default Effect on Savings, by Matching Rate	21
A10	Long Term Effect of Defaults on M-Paz Balances by Quarter	22
A11	The Default Effect on Savings Behaviors and Attitudes, by Match Rate	23
A12	Effect of Matching Incentives on Savings Behavior, Financial Security, and Well-Being	24
A13	“Top of the Mind” Treatments	25

A14	Present Bias and Contribution Changes (Unincentivized Baseline Measure) .	26
A15	Present Bias and Contribution Changes - Heterogeneity by Default Assignment	27
A16	The Default Effect: Additional Heterogeneity	28
A17	Which Element of the Consultation is Associated with Switching: Heterogeneity	29
A18	Consultation Offer and Present Bias (Unincentivized Baseline Measure) . .	30
A19	Which Treatments Move Participants From Their Default Contribution?	31
B1	The Default Effect on Total Contributions (incl. strata fixed effects)	32
B2	The Default Effect on Active Decision at Trial End (incl. strata fixed effects)	33
B3	Which Element of the Consultation is Associated with Switching (incl. strata fixed effects)?	34
B4	Consultation Offer Results By Present Bias (incl. strata fixed effects)	35

A Impacts on Total Savings

All employees participated in face-to-face baseline (January 2015) and endline (August 2015) surveys. Half of all employees were also randomly selected to participate in higher-frequency phone surveys, which occurred in March, May, June, and July of 2015. As we discuss in greater detail in Section IVC, only half of all employees were selected for high-frequency surveys out of concern that being surveyed might, by itself, change savings behavior.

To study the effects of default assignment on total savings, we measure savings using monthly panel data, as described in the main manuscript. Our questions regard savings at the household level, since most participants are the primary breadwinner in their household. The monthly surveys captured flows in the five main financial household savings instruments relevant for our sample: (i) the M-Pasandaz wallet; (ii) the M-Paisa wallet; (iii) as cash; (iv) in a bank account; or (v) as loans given to family and friends. We also aggregate these five types of savings to look at a sixth savings measure: total financial savings. Given our sample of urban salaried employees, these measures provide a fairly comprehensive overview of potential savings.¹ These survey data are likely reported with error, but the fact that we observe M-Pasandaz balances in both the survey and administrative data gives us some insight into potential misreporting. As we discuss in Appendix C.2, there is evidence of confusion by some employees on whether to report stocks (which can be read easily and precisely by looking at the M-Paisa interface) or flows; after correcting for this, we observe a correlation between the survey and administrative measures of $r = 0.85$.

Appendix Table A7 examines the impact of defaults on different types of savings. Our base specification uses a difference-in-difference estimator by regressing monthly flows (Y_{it}) between individuals assigned a default contribution rate of 5% ($Default\ In_i = 1$) and 0% ($Default\ In_i = 0$):

$$Y_{it} = \gamma_1 Default\ In_i \cdot Post_t + \eta_i + \psi_t + \varepsilon_{it},$$

Here, $Post_t$ is an indicator equal to one in the post-treatment period (survey waves 2 - 5) and η_i and ψ_t are employee and survey wave fixed effects, respectively. We investigate whether the default effect varies depending on the assigned employer match rate by estimating:

$$\begin{aligned} Y_{it} = & \beta_1 25\% Match \cdot Default\ Out_i \cdot Post_t + \beta_2 50\% Match \cdot Default\ Out_i \cdot Post_t \\ & + \beta_3 0\% Match \cdot Default\ In_i \cdot Post_t + \beta_4 25\% Match \cdot Default\ In_i \cdot Post_t \\ & + \beta_5 50\% Match \cdot Default\ In_i \cdot Post_t + \eta_i + \psi_t + \varepsilon_{it}, \end{aligned}$$

such that each β coefficient provides the difference-in-difference estimate of the effect of treatment assignment relative to the omitted category (0% employer match and defaulted out). In this latter specification, our power for pairwise tests of differences in means is somewhat limited by the fact that we are comparing 6 different treatment conditions across only 470 employees.

Estimates in Panel A indicate that default enrollment in M-Pasandaz causes a positive but statistically insignificant increase in total savings (Column 1). Across all savings instruments,

¹While previous development studies have focused on non-financial savings behaviors (cf. [Rosenzweig et al., 1993](#)), including jewelry, livestock or durables, these appear to be less relevant in our population of urban wage-earners. At the baseline survey, only 2% of respondents reported non-traditional savings, and we do not find evidence of default effects on self-reported asset ownership in Appendix Table A8.

the only significant effect is an increase in M-Pasandaz savings, which is evident in both the administrative (Column 2) and survey (Column 3) data. We also find positive effects of default enrollment on regular M-Paisa account flows using survey data (Column 4). The remaining columns report somewhat imprecisely measured effects of default assignment on alternative savings instruments (Columns 5-6), loans and transfers made (Column 7) and expenditures (Columns 8-9).² While the estimates are imprecise, in the aggregate, they indicate that both M-Pasandaz and M-Paisa savings are going up, and that may reflect a reduction in cash savings and/or consumption expenditure.

The average default effect masks considerable heterogeneity. In particular, our sample has remarkable variation in salary levels, ranging from about \$150 USD a month (e.g., guards and janitors) to over \$3,000 USD a month (senior managers). Consistent with prior work showing that the default is most important for poorer individuals (Madrian and Shea, 2001; Choi et al., 2004; Beshears et al., 2010a), we find large and statistically significant increases in total savings for employees in the lowest salary quartile (Panel B of Appendix Table A7). In this quartile, the net increase in savings is driven by increases in M-Pasandaz and M-Paisa, and is partially offset by a reduction in cash savings. We interpret these results with some caution, however. First, while the ‘sources and uses’ add up sensibly for the aggregate sample, in the poorest quartile it appears that both savings and consumption are increasing. Logically, this is only possible if employees or their household members are taking on additional outside work, which we did not record as our sample is salaried (though janitors and guards in the sample certainly could be increasing household labor participation).³ We additionally examine whether the M-Pasandaz account assisted subjects in dealing with shocks, but find no empirical evidence that it did so over the 6 months of this study (results available on request).

In addition to the default effects discussed above, the financial incentives offered by M-Pasandaz led to sizable increases in total savings (see Appendix Table A9), which appear to come from reductions in general expenditures (though food expenditure, specifically, is unaffected). Employees in the 50% match group, for example, save about 4,000 more AFs per month (about \$60 USD), independent of default status, than those defaulted out in the 0% match group. The median monthly salary in our sample is about \$450 USD, so the M-Pasandaz program increased monthly savings by about 13% of monthly wages.

Of related interest is how employees perceived these savings and the M-Pasandaz account more generally. M-Pasandaz is a new product, with some features of a mobile money wallet, and some features of a defined contribution savings account. Employees thought M-Pasandaz was most similar to a savings account at a bank (Appendix Figure A3), and generally viewed their accumulated savings as long-term savings. Indeed, of the 349 employees who made

²We might expect the increase in M-Pasandaz savings to crowd out other forms of borrowing (Beshears et al., 2010b). We observe no effect on borrowing, but this may be due to the fact that our population tended to be net lenders – less than 6% of our population (53/947) reported receiving loans or transfers at baseline, a number that did not change significantly over the course of our study.

³Callen et al. (2017) find that a new savings product increases labor market participation for micro-entrepreneurs in Sri Lanka. An additional concern with these types of outcomes is that, especially in richer populations, the underlying distributions are fat-tailed, which may mean that substantial samples are required for the sampling distribution of the regression estimates to converge to their limiting distribution. This is potentially less of a concern in the bottom quartile of this sample, where monthly flows are smaller.

contributions to their M-Pasandaz account, only about half (n=186) had made a withdrawal at the time of the endline survey, with the remainder opting to leave the accrued balance untouched. When asked about their plans for this money, the most common response (after “Don’t know”) was that employees planned to retain their M-Pasandaz balance as savings for the future (Appendix Figure A4).

B Present Bias and the Default Effect

Following O’Donoghue and Rabin (1999), it is evident that when an action involves *immediate costs* and delayed benefits, then naïve present-biased individuals are likely to procrastinate. The decision of whether to undertake the costly action of enrolling in M-Pasandaz today, in order to receive the delayed benefits of an employer match, reflect such a decision. This section presents a simple framework to situate this insight in our setting.

Consider an employee who is defaulted out of M-Pasandaz and in the 50% match group who faces an immediate cost of switching κ . The employee is deciding whether to enter the program. To simplify, imagine the employee is considering whether to make a \$2 monthly contribution and if the employee enters, then they will make no further switches. The program runs for six months $t \in \{1, 2, \dots, 6\}$, benefits are paid out in $t = 7$ at the conclusion of the trial, and, without loss of generality, that the employee has a one period discount factor $\delta = 1$. If the employee starts making contributions in period t , they will invest $\$2(7 - t)$ of principal over the course of the trial and receive back $\$(7 - t)$ in employer matches.

Following O’Donoghue and Rabin (1999), assume the employee has utility function:

$$U^t(\tau) = \begin{cases} \beta v_\tau - c_\tau & \text{if } \tau = t \\ \beta v_\tau - \beta c_\tau & \text{if } \tau > t \end{cases}$$

where τ is the period when the switch is made, v_τ is the reward (which is always delayed, even in the sixth month of the program), and c_τ is the cost. Individuals can either be exponential discounters ($\beta = 1$), present-biased sophisticates ($\beta < 1$) who have correct beliefs, denoted as $\hat{\beta}$ about their future preferences ($\hat{\beta} = \beta$), or present-biased naifs, who incorrectly assume they will not be present-biased in the future ($\hat{\beta} = 1$). We assume that the payoff for never participating in M-Pasandaz is 0.

The benefits to participation are therefore $v_\tau = 3(7 - \tau)$, as two dollars in principal plus one dollar in employer match is provided per period of participation, and the costs are $c_\tau = \kappa + 2 + \beta 2(6 - \tau)$, reflecting the switching cost and the stream of payments into the account over the life of the trial.

An exponential discounter switches if $(9 - \tau) > \kappa + 2$. Because this is declining in τ , a basic prediction is that if an exponential discounter is going to switch at all, they do so immediately. This embodies the simple intuition that if participation is worthwhile in one period, then, with no discounting, it is worthwhile in every period, so the employee should take advantage of the full potential employer match.

A present-biased sophisticate displays a similar pattern of equilibrium behavior. In any period, a present-biased sophisticate should switch if $\beta(9 - \tau) > \kappa + 2$. For a fixed κ , there exist degrees of present bias such that an exponential discounter will enroll and a present-biased sophisticate will never enroll. Nonetheless, if it is ever worthwhile for a sophisticate to enroll, they should do so in the first period.

A present-biased naif, by contrast, could potentially never enroll, while always incorrectly believing that they will do so in the next period. Consider the simple example of $\beta = 1/2$ and $\kappa = 3$. Then, in period 1, the employee will not enroll $8\beta < \kappa + 2 \Leftrightarrow 4 < 5$, as the present discounted benefits are less than the current cost of switching. However, in period 1, they incorrectly believe that they will invest in period 2 if $7 > \kappa + 2$, which, in this case

holds. Yet, when period 2 arrives, they will not invest, as $7\beta < \kappa + 2$.

The essential insight here is that while a sophisticate correctly knows that his future self will only participate if $\beta(9 - \tau) > \kappa + 2$, a naif incorrectly believes their future self will participate if $9 - \tau > \kappa + 2$. That is, they think the constraint for their future selves to participate is less onerous than it will in fact be when the future becomes the present.

An additional, albeit basic, insight that follows is that individuals who discount the future more heavily, regardless of whether they are present biased, are less likely to participate at all because participation involves immediate costs and delayed rewards. For this reason, we also include estimates of the one period discount factor in addition to a separate measure for present bias when trying to predict which of our subjects remain at the default.

C Additional Tests of Robustness

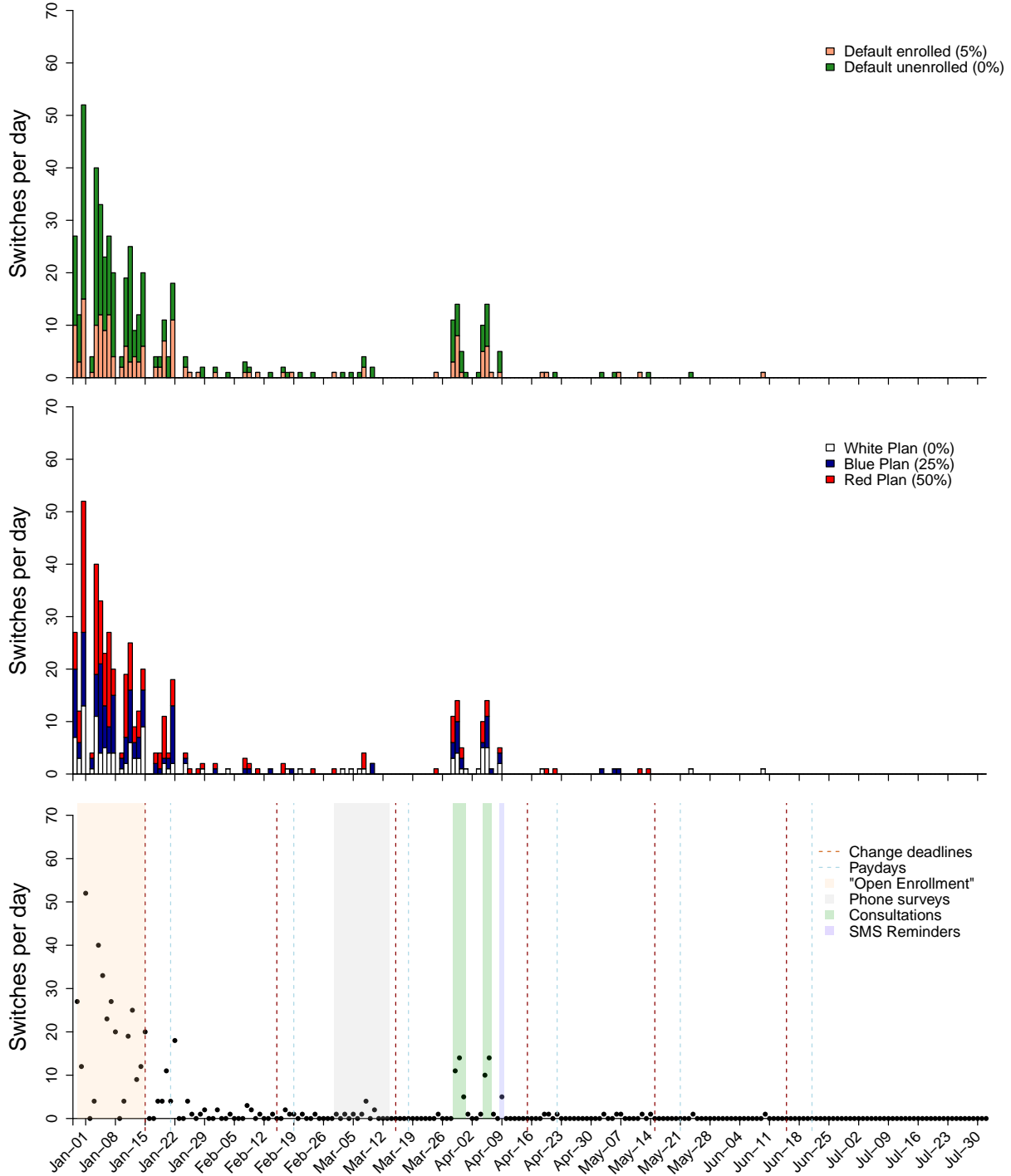
C.1 Robustness of Main Effects

Employees assigned a default contribution rate of 5% could also exit their account by making monthly withdrawals, rather than calling Human Resources and switching their contribution. In Appendix Table A4, we test robustness of the observed default effect when participation is redefined to mean both contributing some portion of salary to the program and never having made a withdrawal. Using this definition, defaulting employees in increases employee participation by 34 percentage points in the white and blue plans, and by 26 percentage points in the red plan, with all three differences being highly statistically significant. In Appendix Table A5, we show the main effects for participation and contribution rate using the values of these variables at the end of the study on July 15th instead of February 28th, following the series of follow-up interventions. At this time, defaulting employees in increases participation by 33 percentage points, and contribution rates by 1.56 percentage points, with similar patterns by matching rates to Table 1.

C.2 Measurement Error in Survey Data

To assess the quality of our panel survey data, we first examine whether survey data on M-Pasandaz balances, which is potentially subject to measurement error due to inaccurate recall or misreporting, corresponds to our administrative data which is measured without error. For the specific case of the M-Pasandaz balance, however, we can directly compare our survey measure of reported flows into the account with the administrative record. This comparison reveals two systematic problems with the survey measure. First, a subsample of employees appears to respond to the survey question, designed to measure monthly flows, by reporting their current stock. If we adjust the data by replacing the monthly survey flow as the difference between monthly survey responses, the correlation between the administrative and the survey measure rises from 0.51 to 0.71. Second, all respondents appear to report negative flows as zero. The correlation between the adjusted survey measure and the administrative measure rises to 0.85 if we exclude individuals who report a monthly flow of zero from the data. Appendix Table A7 reports results using both the administrative data and the monthly survey data adjusting the survey response to a monthly flow using the difference between monthly survey responses for those who appear to be reporting their current stock.

Figure A1: Switching behavior over time



Notes: Dots indicate the number of individuals calling in, on a given day, to change their contribution rate. Top figure shows number of switches by default enrollment status; middle figure shows switches by plan assignment; bottom figure shows these switches in the context of the treatments that were administered to random subsets of the population over the course of the study.

Figure A2: M-Pasandaz reminder message

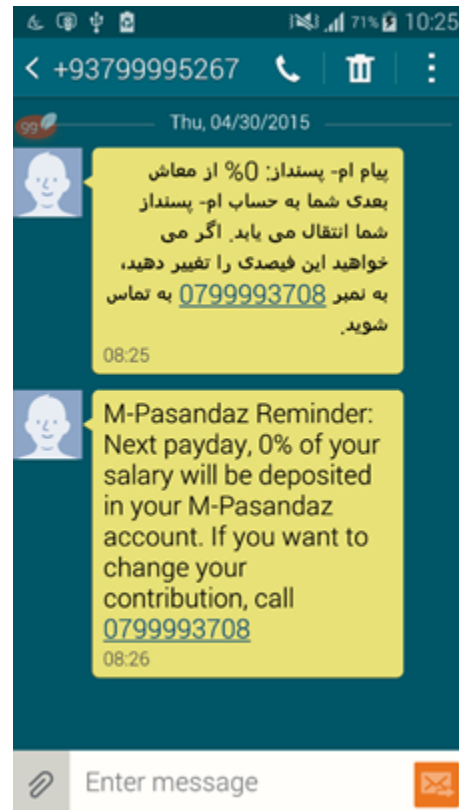
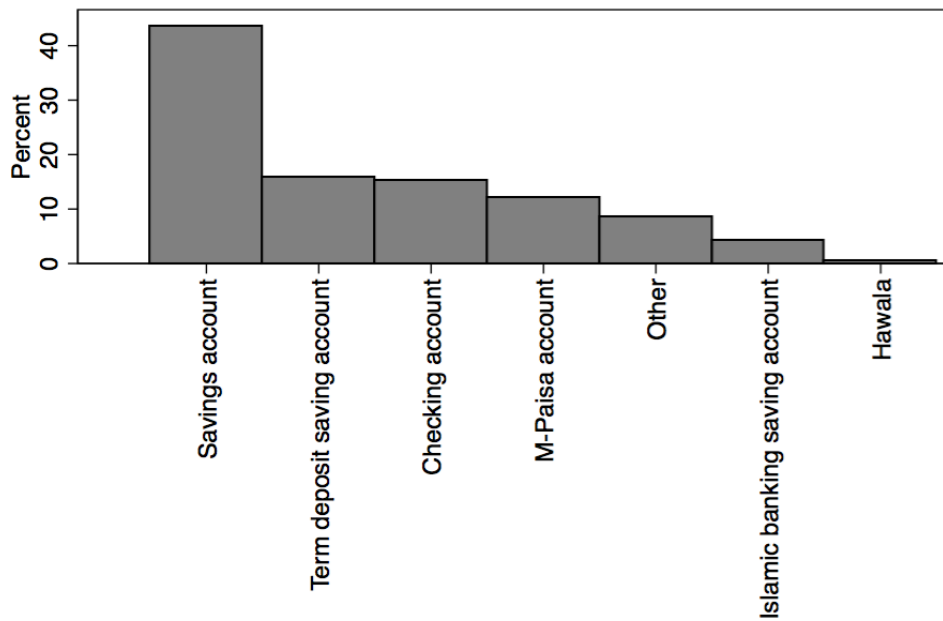


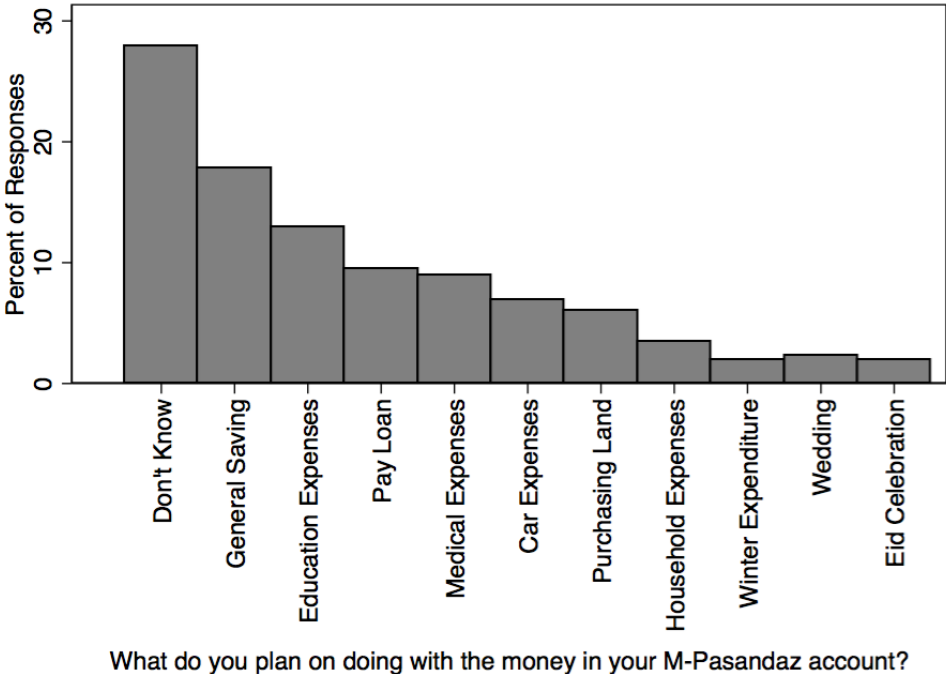
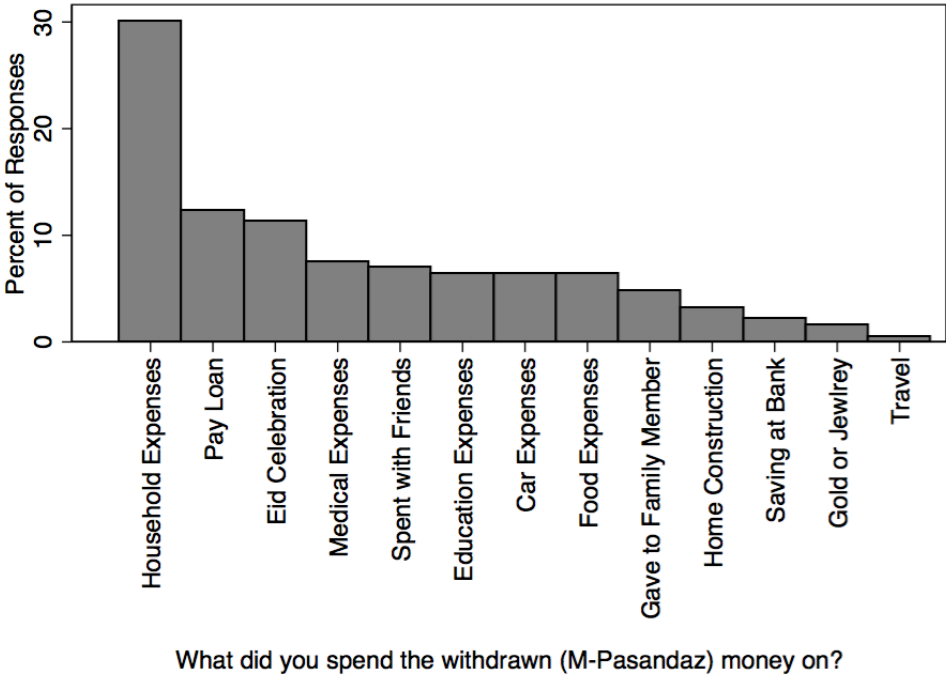
Figure A3: Employee perceptions of M-Pasandaz



Which type of financial product do you think is most comparable to M-Pasandaz?

Notes: Responses collected in the endline survey, after the termination of the study period. Bars indicate the percent of employees who chose each option. Employees could only choose one option.

Figure A4: Employee uses and plans for M-Pasandaz savings



Notes: Responses collected in the endline survey, after the termination of the study period. Employees could give multiple responses to each question. Bars indicate the fraction of all employee responses that were affirmative for each expenditure category.

Table A1: Default Savings Effects in Related Literature

Reference	Study population	Default Effect Estimate
Bernheim et al. (2015)	Employees across three large U.S. firms in chemicals, insurance and food	Estimating a model of costly opt-out in retirement savings decisions, 60% of workers have positive opt-out costs, and 40% act as if opt-out costs are negligible (Table 3).
Beshears et al. (2009)	Subset of employees of a U.S. office equipment firm	When the default contribution rate is increased from 3% to 6%, participation at the default increases from 28% to 49%. Participation at or above 6% increases from 65% to 79% (Figure 5.3).
Beshears et al. (2010b)	645 employees at a U.S. information sector firm	89% of employees participated when given a 25% match; 80.7% participated with no match. The average contribution rate also fell from 3.60 percent to 2.89 percent (Table 11.2).
Bronchetti et al. (2011)	259 eligible tax filers at 8 IRS sponsored Volunteer Income Tax Assistance (VITA) sites in the U.S.	The treatment raised savings bond participation by no more than 8 percentage points (Table 3).
Brune et al. (2017)	474 households in 10 villages in Malawi	Net deposits are 2.9 times higher one week later for treatment households who are given a direct transfer compared to the control group who receives their transfer in cash (Table 4).
Carroll et al. (2009)	4,580 of 46,944 employees at a U.S. financial services firm	Enrollment rates are 29 percentage points higher when employees are forced to make an active enrollment decision (69%) than under a standard enrollment process with default non-enrollment (41%) (Figure 1).
Chetty et al. (2014)	4 million individuals with savings accounts from the population of Denmark	85% of individual savers in Denmark can be described as passive savers who do not respond to subsidies for retirement accounts, but are instead influenced by the automatic contributions made for them (Page 1143).
Dobrescu et al. (2016)	16,988 members of an Australian pension plan	Among highly educated permanent employees, there is a 4.4% decreased probability that a default member will opt out of the voluntary contributions default (Table 3).
Luco (2013)	8,888 individuals enrolled in the Chilean Pension System	55% of people in the Chilean fixed pension system did not switch from the default saving option, despite significant changes in the economic environment over the period of fourteen years (Figure 4).
Goda and Manchester (2013)	925 existing union employees at at U.S. non-profit firm	When an age threshold determines enrollment in defined benefit (DB) vs. defined contribution (DC), employees defaulted into DC are 60 percentage points more likely to enroll in DC plan than those defaulted into DB (Figure 1).
Madrian and Shea (2001)	13,355 employees from a U.S health care insurance firm	61 percent of employees hired under automatic enrollment do nothing to move away from the employer-set default rate for their 401(k) plan (Table 8).
Somville and Vandewalle (2017)	442 villagers in 18 villages in rural India	Being paid in bank account instead of cash increases the account balance by 420 Rupees (110 percent) after three months of weekly payments. Villagers paid in cash do not save more in other assets and rather increase expenditures on regular consumption by 402 Rupees (Table 4).

Table A2: Summary Statistics

	All	Default Out			Default In			P-Value of F-Test
		0% Match	25% Match	50% Match	0% Match	25% Match	50% Match	
Gender (Male = 1)	0.85 (0.36)	0.85 (0.36)	0.87 (0.33)	0.85 (0.36)	0.84 (0.37)	0.81 (0.39)	0.88 (0.33)	0.59
Married (=1)	0.64 (0.48)	0.66 (0.47)	0.64 (0.48)	0.62 (0.49)	0.66 (0.48)	0.64 (0.48)	0.65 (0.48)	0.98
Age (Years)	30.39 (7.88)	30.30 (7.51)	30.13 (7.33)	30.58 (8.34)	30.51 (8.14)	29.98 (7.63)	30.87 (8.38)	0.94
Cognitive Reflection Task	0.60 (0.82)	0.60 (0.81)	0.52 (0.77)	0.60 (0.80)	0.61 (0.85)	0.61 (0.86)	0.67 (0.80)	0.70
Risk Preference (1-10)	4.93 (3.05)	5.06 (3.17)	4.74 (3.18)	5.11 (2.96)	5.22 (3.04)	4.59 (3.02)	4.88 (2.92)	0.43
Monthly Salary (1000 Afs)	32.43 (30.79)	30.41 (25.01)	31.20 (24.12)	33.86 (38.68)	34.39 (34.84)	31.72 (26.25)	33.04 (33.27)	0.84
Monthly Savings (1000 Afs)	15.73 (57.96)	12.20 (27.70)	28.26 (119.05)	11.78 (25.90)	16.49 (35.77)	10.77 (21.11)	14.97 (52.61)	0.28
Tenure At Roshan (Years)	5.83 (3.14)	5.73 (3.12)	6.02 (3.15)	5.76 (3.35)	6.02 (3.08)	5.47 (3.08)	6.01 (3.04)	0.53
Education Level (1-6)	4.79 (1.23)	4.80 (1.19)	4.74 (1.30)	4.73 (1.24)	4.87 (1.10)	4.86 (1.23)	4.76 (1.30)	0.84
Has Bank Account (=1)	0.41 (0.49)	0.42 (0.49)	0.39 (0.49)	0.38 (0.49)	0.41 (0.49)	0.44 (0.50)	0.40 (0.49)	0.88
Delayed a Bill Payment (=1)	0.41 (0.49)	0.43 (0.50)	0.36 (0.48)	0.47 (0.50)	0.41 (0.49)	0.37 (0.48)	0.42 (0.50)	0.40
Withdraws Entire Salary (=1)	0.41 (0.49)	0.37 (0.48)	0.42 (0.49)	0.42 (0.50)	0.41 (0.49)	0.44 (0.50)	0.40 (0.49)	0.82
Capable of Fixing Phone (=1)	0.47 (0.50)	0.50 (0.50)	0.49 (0.50)	0.45 (0.50)	0.46 (0.50)	0.42 (0.49)	0.48 (0.50)	0.71
Interested in M-Pasandaz (=1)	0.85 (0.35)	0.85 (0.36)	0.87 (0.33)	0.84 (0.37)	0.83 (0.38)	0.89 (0.31)	0.84 (0.37)	0.63
Present Biased Baseline (=1)	0.32 (0.47)	0.25 (0.43)	0.36 (0.48)	0.31 (0.46)	0.35 (0.48)	0.30 (0.46)	0.33 (0.47)	0.30
Present Biased Endline (=1)	0.41 (0.49)	0.44 (0.50)	0.43 (0.50)	0.34 (0.48)	0.41 (0.49)	0.42 (0.49)	0.44 (0.50)	0.61
Observations	949	161	158	159	158	158	155	

Notes: Standard deviations reported in parentheses. See Appendix D.2 for covariate questions. Present Biased Baseline (=1) is a binary variable that equals one if an employee is identified as having $\beta < 1$ in an unincentivized present bias elicitation completed at baseline, and Present Biased Endline (=1) is a binary variable that equals one if an employee is identified as having $\beta < 1$ in an experimental present bias elicitation completed at endline with real stakes (see paper text for details).

Table A3: Self-reported Reasons for Switching Contribution Rates

	<i>N</i>	Total	%	Default Out			Default In		
				0%	25%	50%	0%	25%	50%
<i>Panel A: Reasons for increasing contribution rate</i>									
Increased - Savings Important	189	285	66.32	7	32	59	9	36	46
Increased - Wanted Incentives	107	285	37.54	0	15	46	0	18	28
Increased - Support Roshan	10	285	3.51	1	1	1	1	3	3
Increased - Demand Commitment	8	285	2.81	0	3	3	0	2	0
Increased - Thought Automatic	5	285	1.75	0	3	2	0	0	0
<i>Panel B: Reasons for decreasing contribution rate</i>									
Decreased - Salary Too Low	52	170	30.59	0	0	0	22	17	13
Decreased - Incentives Too Low	49	170	28.82	0	0	0	48	0	1
Decreased - Expenses Too High	35	170	20.59	0	0	0	10	19	6
Decreased - Un-Islamic Product	24	170	14.12	0	0	0	5	10	9
Decreased - Better Options	4	170	2.35	0	0	0	3	1	0

Notes: Total in column 2 reports number of participants that either decreased their contribution rate (rows 1-5) or increased their contribution rate (rows 6-10). Reasons were not mutually exclusive and respondents were asked to report all relevant reasons for changing their contribution. “Decreased - Salary Too Low” indicates that respondents felt their salary was not sufficiently large to allow for savings. “Decreased - Incentives Too Low” indicates that respondents felt the incentives were not sufficiently high for savings. “Decreased - Expenses Too High” indicates that respondents felt their other expenses were too high for savings. “Decreased - Un-Islamic Product” indicates that respondents felt the M-Pasandaz product did not conform with Islamic practices. “Decreased - Better Options” indicates that respondents reported having better alternative savings options available. “Increased - Savings Important” indicates that respondents said savings was an important goal for them. “Increased - Wanted Incentives” indicates that respondents mentioned the incentives as important to their decision. “Increased - Support Roshan” indicates that respondents mentioned wanting to support Roshan’s development of a new product. “Increased - Demand Commitment” indicates that respondents mentioned needing commitment devices to help save. “Increased - Thought Automatic” indicates that respondents mentioned thinking they were automatically enrolled in the program when they were not.

Table A4: The Default Effect on Robustness to Withdrawing to Exit the Account

Dependent Variable:	Participates and No Withdrawal (=1)			
	(1)	(2)	(3)	(4)
Default In (=1)	0.33 (0.04)	0.33 (0.05)	0.25 (0.05)	0.31 (0.03)
Constant	0.01 (0.01)	0.26 (0.04)	0.55 (0.04)	0.27 (0.02)
Sample	0% Match	25% Match	50% Match	Full Sample
# Observations	316	313	309	938
R-Squared	0.194	0.111	0.073	0.096

Notes: Participates and No Withdrawal (=1) is a binary variable that equals one if the contribution rate is greater than zero and the employee never withdrew from their account. The dependent variable reflect employees' status as of February 28, 2015, following the first two paydays but prior to the rollout of phone surveys or secondary interventions. Robust standard errors reported in parentheses.

Table A5: The Default Effect on Participation and Contribution (as of July 15)

<i>Panel A: The effect on participation</i>				
Dependent Variable:	Participates (=1)			
	(1)	(2)	(3)	(4)
Default In (=1)	0.33	0.36	0.38	0.23
	(0.03)	(0.05)	(0.05)	(0.05)
Constant	0.32	0.07	0.32	0.60
	(0.02)	(0.02)	(0.04)	(0.04)
Sample	Complete	0% Match	25% Match	50% Match
# Observations	890	298	299	293
R-Squared	0.108	0.174	0.148	0.064
<i>Panel B: The effect on contribution rate</i>				
Dependent Variable:	Contribution Rate (% of Salary)			
	(5)	(6)	(7)	(8)
Default In (=1)	1.56	1.89	2.20	0.42
	(0.29)	(0.29)	(0.50)	(0.50)
Constant	3.11	0.46	3.07	5.92
	(0.22)	(0.16)	(0.38)	(0.40)
Sample	Complete	0% Match	25% Match	50% Match
# Observations	890	298	299	293
R-Squared	0.032	0.125	0.062	0.002

Notes: Participates (=1) is a binary variable that equals one if the contribution rate is greater than zero, Contribution (% of Salary) is the monthly contribution rate into M-Pasandaz as a percent of total salary, and an observation is an employee. Variables reflect contribution rate values observed as of July 15, 2015, just prior to the disbursement of matching incentives. Robust standard errors reported in parentheses.

Table A6: The Default Effect: Heterogeneity by Salary Quartile

	(1)	(2)	(3)	(4)
<i>Panel A.</i> Dependent Variable = Participates (non-zero contribution rate)				
Default In (=1)	0.45	0.37	0.42	0.37
	(0.06)	(0.06)	(0.06)	(0.06)
Constant	0.24	0.32	0.28	0.28
	(0.04)	(0.04)	(0.04)	(0.04)
Salary Quartile Sample	1st	2nd	3rd	4th
# Observations	239	227	236	234
R-Squared	0.200	0.134	0.173	0.141
<i>Panel B.</i> Dependent Variable = Contribution Rate (% of Salary)				
Default In (=1)	1.69	1.59	2.16	1.61
	(0.48)	(0.54)	(0.53)	(0.54)
Constant	2.34	3.00	2.63	2.83
	(0.38)	(0.41)	(0.41)	(0.41)
Salary Quartile Sample	1st	2nd	3rd	4th
# Observations	239	227	236	234
R-Squared	0.049	0.036	0.066	0.036
<i>Panel C.</i> Dependent Variable = Total M-Pasandaz Contributions (Afs)				
Default In (=1)	734.38	260.73	2871.54	5995.37
	(362.10)	(602.29)	(934.56)	(2546.34)
Constant	1501.72	3291.68	4138.81	9939.97
	(263.60)	(439.28)	(656.27)	(1546.56)
Salary Quartile Sample	1st	2nd	3rd	4th
# Observations	244	231	237	237
R-Squared	0.017	0.001	0.038	0.023

Notes: Dependent variable in top panel, Participates (=1), is a binary variable that equals one if the contribution rate is greater than zero, and dependent variable in middle panel, Contribution Rate (% of Salary), is the monthly contribution rate into M-Pasandaz as a percent of total salary. Participates and Contribution Rate reflect values observed as of February 28, 2015, following the first two paydays but prior to the rollout of phone surveys or secondary interventions. Dependent variable in third panel is total contributions made by the employee to M-Pasandaz, in Afghanis, as observed in administrative data. Value reflects total contributions net of withdrawals as of July 15, 2015, just prior to the disbursement of matching incentives. Value does not include matching contributions made by the employer. Robust standard errors reported in parentheses.

Table A7: The Default Effect on Household Savings

	Total Savings (Survey) (1)	M-Paz Savings (Admin) (2)	M-Paz Savings (Survey) (3)	M-Paisa Savings (Survey) (4)	Cash Savings (Survey) (5)	Bank Savings (Survey) (6)	Loans or Transfers (Survey) (7)	Consumption Expenditure (Survey) (8)	Food Expenditure (Survey) (9)
Panel A: <i>Default Effects</i>									
Default In x Post	1711.09 (2311.38)	464.75 (191.91)	550.19 (171.42)	1395.14 (772.04)	-743.54 (847.62)	419.57 (1288.12)	377.36 (582.45)	-1537.40 (3355.89)	619.65 (462.19)
Control Mean	10214.54	658.57	596.35	2658.82	2458.58	2407.01	1066.93	37488.00	3801.98
# Employees	470	470	470	470	470	470	470	470	470
# Observations	1969	1969	1969	1969	1969	1969	1969	1969	1549
R-Squared	0.013	0.084	0.135	0.007	0.023	0.010	0.011	0.005	0.021
Panel B: <i>Heterogeneity by Salary Quartile</i>									
Default In * Post * 1st Salary Quartile	4329.82 (2344.65)	254.20 (102.67)	189.80 (125.26)	3134.45 (1098.43)	-822.24 (885.47)	-51.33 (478.40)	1099.95 (745.21)	4705.62 (6485.91)	621.65 (692.46)
Default In * Post * 2nd Salary Quartile	-1743.08 (2709.33)	-48.45 (173.88)	49.65 (148.44)	-196.10 (1442.35)	-288.65 (1573.56)	-914.93 (925.29)	390.71 (652.14)	-1924.55 (4845.72)	-672.24 (684.66)
Default In * Post * 3rd Salary Quartile	-6157.88 (4563.54)	687.19 (237.47)	626.16 (233.61)	1658.07 (1299.94)	-1759.29 (1446.66)	-4199.33 (2399.69)	-32.37 (989.18)	467.25 (4968.89)	1061.03 (892.39)
Default In * Post * 4th Salary Quartile	10420.76 (7046.77)	831.69 (643.89)	1202.38 (548.66)	903.30 (2120.49)	-95.98 (2405.42)	6933.39 (4407.49)	239.80 (1825.19)	-8743.88 (9561.56)	1484.75 (1304.32)
Control Mean - 1st Salary Quartile	4638.85	171.68	250.38	1494.81	1700.71	518.67	321.58	27083.28	2502.07
Control Mean - 2nd Salary Quartile	6704.00	565.64	475.23	2161.44	1814.23	537.45	952.81	25212.03	3137.96
Control Mean - 3rd Salary Quartile	8532.11	538.60	550.00	2917.55	2201.91	1301.56	941.25	35475.43	3942.26
Control Mean - 4th Salary Quartile	21860.22	1400.98	1144.10	4147.36	4263.95	7721.89	2107.30	64537.17	5785.96
# Employees	470	470	470	470	470	470	470	470	470
# Observations	1969	1969	1969	1969	1969	1969	1969	1969	1549
R-Squared	0.022	0.122	0.187	0.010	0.031	0.020	0.019	0.008	0.025

Notes: Table reports the effect of M-Pasandaz on total household savings, expenditure, and savings sub-categories. An observation is a respondent-month. Dependent variables indicate, in Afghani, monthly asset (columns 2-7) and expenditure (columns 8-9) flows. Column (1) is the sum of columns (3), (4), (5), (6) and (7). Column (2) uses administrative data for monthly flows into M-Pasandaz. Column (3) reports survey responses for monthly flows into M-Pasandaz accounts, adjusted to correct for stock reporting (see text for details). Column (4) reports survey responses for monthly flows into M-Paisa accounts. Column (7) includes loans or transfers given (not received) by the respondent. Sample includes baseline pre-treatment responses and 4 follow-up surveys, except in columns (8) - (9) where it includes pre-treatment responses and 3 follow-up surveys due to data availability. These variables are constructed using a “sources and uses” approach where respondents are asked to account for all household income, and then asked to account for all savings, and reconcile both numbers. Consumption is calculated as the residual of income minus savings. Food expenditure is captured in a separate survey module where respondents are asked to recall the previous week’s expenditure by item. Total weekly food expenditure is multiplied by four to produce an estimate of monthly food consumption. All variables are winsorized at the 99th percentile. Consumption is additionally winsorized at 0, replacing 102 observations that report a negative value (respondents who report adding to household savings by more than the household earned). All regressions include employee fixed effects, survey wave fixed effects and a “Post” binary variable that equals one for all waves after the baseline. Robust standard errors, clustered at employee level, reported in parentheses.

Table A8: The Default Effect on Asset Ownership

	Baseline		Endline		Mean Difference	Difference in Difference
	Default Out	Default In	Default Out	Default In		
Asset Index	0.04 [2.25]	-0.04 [2.18]	0.01 [2.25]	-0.01 [2.27]	0.03 (0.16)	0.05 (0.13)
Rooms (#)	3.31 [2.08]	3.23 [1.98]	3.74 [2.23]	3.58 [1.77]	0.16 (0.14)	-0.09 (0.15)
Beds (#)	0.81 [1.16]	0.77 [1.17]	0.80 [1.24]	0.92 [1.32]	-0.11 (0.09)	0.15 (0.09)
Air Conditioners (#)	0.21 [0.80]	0.19 [0.63]	0.33 [0.82]	0.38 [0.85]	-0.05 (0.06)	0.08 (0.06)
Heaters (#)	1.31 [1.38]	1.25 [1.17]	1.21 [1.15]	1.32 [1.30]	-0.11 (0.09)	0.16 (0.09)
Stoves (#)	1.38 [0.89]	1.39 [0.99]	1.35 [1.04]	1.41 [0.87]	-0.05 (0.07)	0.10 (0.08)
Washing Machines (#)	1.05 [0.62]	1.02 [0.55]	1.10 [0.72]	1.09 [0.59]	0.01 (0.05)	0.03 (0.04)
Refrigerators (#)	0.86 [0.66]	0.87 [0.59]	1.00 [0.60]	0.94 [0.59]	0.06 (0.04)	-0.08 (0.04)
Sewing Machines (#)	1.10 [0.77]	1.07 [0.77]	1.09 [0.85]	1.09 [0.67]	-0.00 (0.05)	0.01 (0.05)
Televisions (#)	1.76 [1.07]	1.76 [1.11]	1.88 [1.25]	1.87 [1.17]	0.01 (0.08)	-0.01 (0.07)
VCR/DVD Players (#)	0.61 [0.86]	0.66 [0.86]	0.64 [0.93]	0.66 [0.89]	-0.01 (0.06)	-0.03 (0.07)
Mobile Phones (#)	4.97 [2.59]	4.85 [2.91]	4.70 [2.77]	4.49 [2.79]	0.21 (0.20)	-0.07 (0.18)
Computers (#)	1.40 [1.17]	1.36 [1.08]	1.38 [1.11]	1.42 [1.14]	-0.04 (0.08)	0.09 (0.07)
Bicycles (#)	0.82 [0.91]	0.76 [0.96]	0.86 [0.95]	0.77 [0.92]	0.09 (0.07)	-0.01 (0.06)
Motorcycles (#)	0.17 [0.51]	0.21 [0.51]	0.16 [0.50]	0.18 [0.46]	-0.02 (0.03)	-0.01 (0.03)
Automobiles (#)	0.41 [0.56]	0.41 [0.62]	0.45 [0.61]	0.43 [0.64]	0.02 (0.04)	-0.03 (0.04)
Livestock (#)	0.54 [2.78]	0.52 [2.86]	0.60 [2.24]	0.34 [1.39]	0.27 (0.13)	-0.28 (0.22)
Observations	473	467	409	404		

Notes: Standard deviations reported in brackets and standard errors reported in parentheses. Asset Index is the first principal component of the full set of asset variables below. Columns (1) and (2) report mean values during the baseline survey in October 2014 for default out and default in groups, respectively. Columns (3) and (4) report mean values during the endline survey in August 2015 for default out and default in groups, respectively. Column (5) reports the difference in means and standard error from a t-test comparing default out and default in groups at endline, while Column (6) reports the coefficient and standard errors from a difference-in-difference estimate comparing default out and default in groups between endline and baseline.

Table A9: The Default Effect on Savings, by Matching Rate

	Total Savings (Survey) (1)	M-Paz Savings (Admin) (2)	M-Paz Savings (Survey) (3)	M-Paisa Savings (Admin) (4)	M-Paisa Savings (Survey) (5)	Cash Savings (Survey) (6)	Bank Savings (Survey) (7)	Loans or Transfers (Survey) (8)	General Exp (Survey) (9)	Food Exp (Survey) (10)
β_{-1} : Default Out x 25% Match x Post	-1121.78 (2966.74)	645.62 (200.75)	412.12 (132.34)	-3111.20 (4200.67)	-1534.95 (1337.80)	441.22 (1257.00)	-454.08 (2280.89)	-278.92 (1219.56)	-1719.55 (3282.98)	711.80 (773.53)
β_{-2} : Default Out x 50% Match x Post	4221.00 (2968.33)	1703.13 (286.07)	1590.37 (223.68)	-2390.95 (2913.31)	298.82 (1460.17)	907.55 (1201.55)	-323.04 (2139.07)	538.51 (1028.32)	-2995.64 (4580.51)	457.94 (833.74)
β_{-3} : Default In x 0% Match x Post	2041.33 (3809.67)	323.80 (193.46)	513.04 (179.87)	-3056.22 (4339.40)	224.44 (1074.73)	-1267.55 (1435.44)	144.73 (2770.91)	792.69 (1167.02)	-5623.64 (6273.38)	625.80 (826.03)
β_{-4} : Default In x 25% Match x Post	3585.35 (3047.85)	1358.97 (235.83)	1337.34 (226.49)	74.61 (2935.55)	1925.06 (1207.62)	355.62 (1263.08)	-915.67 (2250.46)	123.63 (1168.60)	-981.01 (4088.32)	686.30 (828.99)
β_{-5} : Default In x 50% Match x Post	3804.46 (3146.93)	1931.97 (294.99)	1645.53 (244.46)	1537.37 (3479.64)	243.51 (1233.53)	-617.27 (1404.96)	510.61 (2224.97)	833.56 (935.99)	-7656.92 (4202.88)	951.27 (770.28)
Control Mean	8508.89	659.33	577.36	-1447.47	2390.02	2163.13	1680.69	843.23	16567.11	3629.36
# Employees	470	470	470	468	470	470	470	470	469	470
# Observations	1951	1957	1957	1937	1958	1956	1952	1955	1578	1536
Default Effect At 0% Match: $\beta_3 = 0$	0.592	0.095	0.005	0.482	0.835	0.378	0.958	0.497	0.370	0.449
Default Effect At 25% Match: $\beta_1 = \beta_4$	0.079	0.020	0.000	0.461	0.010	0.945	0.743	0.748	0.834	0.972
Default Effect At 50% Match: $\beta_2 = \beta_5$	0.881	0.574	0.867	0.273	0.970	0.250	0.456	0.715	0.338	0.495
R-Squared	0.020	0.111	0.172	0.005	0.010	0.025	0.007	0.018	0.025	0.023
Waves	1 - 5	1 - 5	1 - 5	1 - 5	1 - 5	1 - 5	1 - 5	1 - 5	1 - 4	1 - 4
Trim	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Employee FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wave FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Notes: See Table A7 notes. All regressions include employee fixed effects, survey wave fixed effects and a "Post" binary variable that equals one for all waves after the baseline. All variables are trimmed at 1%. Robust standard errors, clustered at employee level, reported in parentheses.

Table A10: Long Term Effect of Defaults on M-Paz Balances by Quarter

	(1)	(2)	(3)	(4)
<i>Panel A.</i> Dependent Variable = M-Pazandaz Monthly Participation (=1)				
Defaulted In X 2015:Q1 (During Study)	0.440 (0.028)	0.495 (0.039)	0.472 (0.048)	0.346 (0.046)
Defaulted In X 2015:Q2 (During Study)	0.330 (0.031)	0.366 (0.045)	0.374 (0.053)	0.234 (0.050)
Defaulted In X 2015:Q3 (Post Study)	0.077 (0.035)	0.114 (0.059)	0.047 (0.059)	0.064 (0.062)
Defaulted In X 2015:Q4 (Post Study)	0.076 (0.038)	0.108 (0.065)	0.063 (0.064)	0.052 (0.068)
Defaulted In X 2016:Q1 (Post Study)	0.083 (0.039)	0.098 (0.067)	0.088 (0.066)	0.062 (0.069)
Defaulted In X 2016:Q2 (Post Study)	0.075 (0.039)	0.099 (0.067)	0.084 (0.067)	0.040 (0.070)
Defaulted In X 2016:Q3 (Post Study)	0.070 (0.040)	0.105 (0.068)	0.072 (0.067)	0.031 (0.072)
Defaulted In X 2016:Q4 (Post Study)	0.049 (0.040)	0.066 (0.068)	0.055 (0.067)	0.027 (0.071)
Employer Match	Complete	0%	25%	50%
Month FE	YES	YES	YES	YES
Employee FE	YES	YES	YES	YES
# Employees	943	318	315	310
# Observations	15932	5297	5436	5199
R-Squared	0.07	0.10	0.08	0.11
<i>Panel B.</i> Dependent Variable = M-Pazandaz Monthly Balance (AFs)				
	(1)	(2)	(3)	(4)
Defaulted In X 2015:Q1 (During Study)	1276.151 (243.711)	1451.145 (266.035)	1232.411 (426.033)	1149.819 (497.305)
Defaulted In X 2015:Q2 (During Study)	2181.255 (619.173)	2328.027 (558.224)	2548.884 (1103.583)	1676.520 (1289.838)
Defaulted In X 2015:Q3 (Post Study)	1101.753 (424.186)	437.328 (319.477)	1910.186 (884.962)	854.693 (830.137)
Defaulted In X 2015:Q4 (Post Study)	937.288 (508.617)	62.507 (770.410)	2298.533 (883.006)	251.866 (963.910)
Defaulted In X 2016:Q1 (Post Study)	291.542 (542.742)	-101.046 (875.935)	481.555 (801.500)	437.174 (1129.017)
Defaulted In X 2016:Q2 (Post Study)	214.531 (569.544)	733.462 (1043.831)	-103.568 (909.243)	1.781 (1035.179)
Defaulted In X 2016:Q3 (Post Study)	216.215 (577.237)	1122.238 (1173.663)	-57.349 (905.239)	-427.992 (941.989)
Defaulted In X 2016:Q4 (Post Study)	689.448 (660.593)	1390.079 (1254.212)	662.317 (1112.137)	9.217 (1078.826)
Employer Match	Complete	0%	25%	50%
Month FE	YES	YES	YES	YES
Employee FE	YES	YES	YES	YES
# Employees	949	319	316	314
# Observations	17051	5672	5805	5574
R-Squared	0.03	0.02	0.04	0.07

Notes: Dependent variable in top panel is the monthly participation decision to contribute to the M-Pasandaz account, and in the bottom panel is the M-Pasandaz balance at the end of each month (in Afghanis, or AFs). Each observation is a respondent-month. All regressions include employee fixed effects and month fixed effects. Robust standard errors, clustered at employee level, reported in parentheses.

Table A11: The Default Effect on Savings Behaviors and Attitudes, by Match Rate

Outcome:	Control Mean	Default Effect	Naive p-Value	List et al p-Value	Bonferonni p-Value
<i>Panel A: Composite Indices (0% Match)</i>					
Importance of Saving Index	-0.143	0.259	0.003	0.006	0.007
Financial Security Index	-0.007	0.118	0.080	0.147	0.235
Well-Being Index	0.091	0.021	0.727	0.732	1
<i>Panel B: Composite Indices (25% Match)</i>					
Importance of Saving Index	0.056	0.003	0.966	0.966	1
Financial Security Index	-0.002	0.110	0.120	0.297	0.347
Well-Being Index	-0.018	0.038	0.557	0.801	1
<i>Panel C: Composite Indices (50% Match)</i>					
Importance of Saving Index	0.071	0.147	0.044	0.103	0.112
Financial Security Index	0.022	0.091	0.190	0.332	0.566
Well-Being Index	-0.032	0.004	0.949	0.946	1

Notes: See Table 3 notes.

Table A12: Effect of Matching Incentives on Savings Behavior, Financial Security, and Well-Being

Outcome:	0% Only Mean	25% v. 0% Effect	Naive p-Value	List et al p-Value	Bonferonni p-Value	50% v. 0% Effect	Naive p-Value	List et al p-Value	Bonferonni p-Value
<i>Panel A: Composite Indices</i>									
Importance of Saving Index	-0.003	0.01	0.231	0.975	1	0.124	0.005	0.016	0.017
Financial Security Index	0.003	0.005	0.96	0.913	1	0.013	0.765	0.746	1
Well-Being Index	-0.001	0.019	0.12	0.945	1	0.074	0.023	0.153	0.248
<i>Panel B: Importance of Saving Index Variables:</i>									
Savings is Important (=1)	0.96	0.004	0.717	0.821	1	0.002	0.768	0.893	1
Attempts to Save Each Month (=1)	0.608	0.013	0.247	0.914	1	0.099	0.002	0.008	0.009
M-Paz Changed Desire to Save	0.513	0.02	0.05	0.932	1	0.088	0.002	0.035	0.054
<i>Panel C: Financial Security Index Variables:</i>									
Not Too Financially Constrained to Save (=1)	0.626	0.018	0.368	0.83	1	0.094	0.005	0.026	0.028
Confident Meeting Current Fin. Obligations (=1)	0.952	0.002	0.743	0.919	1	0.006	0.632	0.925	1
Confident Meeting Future Fin. Obligations (=1)	0.802	0.036	0.617	0.606	1	0.047	0.243	0.249	0.462
Will Retire Someday (=1)	0.403	0.034	0.211	0.712	1	0.009	0.399	0.794	1
Financial Satisfaction (1 - 10)	6.614	0.281	0.338	0.323	0.383	0.305	0.222	0.171	0.235
<i>Panel D: Well-Being Index Variables:</i>									
Nights No One Without Food During Prior Week	6.688	0.098	0.682	0.379	0.58	0.242	0.003	0.009	0.01
Happy Overall (=1)	0.941	0.008	0.442	0.962	1	0.009	0.435	0.883	1
Life Satisfaction (1 - 10)	8.077	0.023	0.31	0.988	1	0.323	0.02	0.145	0.193
Good Physical Health (=1)	0.849	0.067	0.008	0.117	0.123	0.001	0.158	0.989	1
Healthy Last Three Months (=1)	0.956	0.001	0.627	0.926	1	0.01	0.404	0.869	1
<i>Panel E: Other Variables:</i>									
Satisfied at Roshan (=1)	0.832	0.073	0.004	0.044	0.045	0.004	0.109	0.892	1
Left Roshan (=1)	0.144	0.035	0.312	0.135	0.27	0.029	0.599	0.436	0.5

Notes: This table reports the effects of randomly assigned match rates for the M-Pasandaz savings account. Col 1 reports the mean outcome value for the 0% match rate group, Col 2 reports the mean difference between the 25% match rate group and the 0% group, and Col 7 reports the mean difference between the 50% match rate group and the 0% group. Cols 3-6 and Cols 8-10 report standard, List et al. (2016) and Bonferonni P-values for the estimates in Col 2 and Col 7, respectively. See Table 3 notes for additional detail.

Table A13: “Top of the Mind” Treatments

Dependent Variable:	Changed After Phone Survey (=1)		Changed After SMS Reminder (=1)			
	(1)	(2)	(3)	(4)	(5)	(6)
Phone Survey (=1)	0.007 (0.004)	-0.000 (.)	0.007 (0.007)			
Default * Phone Survey		0.014 (0.008)				
25% Match * Phone Survey			0.007 (0.012)			
50% Match * Phone Survey			-0.007 (0.007)			
SMS Reminder (=1)				0.028 (0.011)	0.018 (0.013)	0.027 (0.019)
Default * SMS Reminder					0.019 (0.022)	
25% Match * SMS Reminder						-0.000 (0.027)
50% Match * SMS Reminder						0.001 (0.028)
Default In (=1)		-0.000 (.)			-0.000 (0.000)	
Match Rate = 25%			-0.000 (0.000)			0.000 (0.000)
Match Rate = 50%			0.000 (0.000)			0.000 (0.000)
# Observations	888	888	888	437	437	437
R-Squared	0.003	0.010	0.008	0.014	0.017	0.014

Notes: Changed After Phone Survey equals one if an employee changed their contribution rate either on the day they received a phone survey or the day immediately following. Changed After SMS Reminder is a binary variable that equals one if an employee changed their contribution rate either on the day they received a sms reminder or the day immediately following. Phone Survey is a binary variable if the employee was randomly assigned to receive a phone survey. SMS Reminder is a binary variable if the employee was randomly assigned to receive an sms reminder. Robust standard errors reported in parentheses. N of 888 employees reflects attrition before the end of the study on July 31st; results available on request confirm no differential attrition by assignment to Phone Survey or SMS treatment.

Table A14: Present Bias and Contribution Changes (Unincentivized Baseline Measure)

Dependent Variable:	Still at Default on February 28		Still at Default and No Withdrawal on Feb. 28	
	(1)	(2)	(3)	(4)
Present Bias Parameter (β)	-0.510 (0.161)	-0.460 (0.170)	-0.457 (0.169)	-0.407 (0.179)
Long Run Discount Factor (δ)		-0.147 (0.288)		-0.146 (0.294)
Cognitive Reflection Test (0-3)		-0.051 (0.023)		-0.049 (0.022)
Risk Preference (1-10)		0.002 (0.006)		0.003 (0.006)
Salary (1000 Afs)		0.001 (0.001)		0.001 (0.001)
Tenure at Roshan (Years)		-0.013 (0.006)		-0.009 (0.006)
Male (=1)		0.025 (0.052)		0.033 (0.052)
Education Level		-0.001 (0.017)		-0.007 (0.017)
Uses a Bank Account (=1)		-0.041 (0.037)		-0.045 (0.038)
Withdraws Entire Salary on Payday (=1)		0.008 (0.037)		0.006 (0.037)
Capable of Fixing Phone (=1)		0.051 (0.035)		0.039 (0.036)
Constant	1.075 (0.156)	1.210 (0.309)	0.977 (0.164)	1.120 (0.319)
R-Squared	0.010	0.025	0.008	0.020
# Employees	829	804	829	804

Notes: This table reports on the variables that predict whether a participant remains at their default election on February 28, 2015, two months after the start of the experiment. β is a measure of present bias obtained using a hypothetical price list at baseline. The remaining variables are described in Appendix D.2. Robust standard errors reported in parentheses.

Table A15: Present Bias and Contribution Changes - Heterogeneity by Default Assignment

Dependent Variable:	Still at Default on February 28		Still at Default and No Withdrawal on Feb. 28	
	(1)	(2)	(3)	(4)
Present Bias Parameter (β)	-0.143 (0.064)	-0.163 (0.064)	-0.143 (0.064)	-0.163 (0.064)
Default In x β	-0.003 (0.103)	0.037 (0.102)	0.094 (0.103)	0.132 (0.102)
Defaulted In (=1)	-0.263 (0.109)	-0.057 (0.243)	-0.454 (0.109)	-0.234 (0.242)
Default In x δ		0.035 (0.106)		0.043 (0.111)
Long Run Discount Factor (δ)		-0.004 (0.072)		-0.004 (0.072)
Default In x Cognitive Reflection Test		0.009 (0.050)		-0.001 (0.046)
Cognitive Reflection Test (0-3)		-0.050 (0.034)		-0.050 (0.034)
Default In x Risk Preference		0.025 (0.012)		0.028 (0.011)
Risk Preference (1-10)		-0.002 (0.007)		-0.002 (0.007)
Default In x Salary		0.000 (0.002)		0.000 (0.002)
Salary (1000 Afs)		0.000 (0.001)		0.000 (0.001)
Default In x Tenure at Roshan		-0.015 (0.014)		-0.008 (0.013)
Tenure at Roshan (Years)		-0.004 (0.009)		-0.004 (0.009)
Default In x Male		-0.127 (0.110)		-0.142 (0.109)
Male (=1)		0.095 (0.080)		0.095 (0.080)
Default In x Education Level		-0.047 (0.035)		-0.053 (0.034)
Education Level		0.022 (0.024)		0.022 (0.024)
Default In x Uses a Bank Account		0.002 (0.079)		0.007 (0.079)
Uses a Bank Account (=1)		-0.036 (0.053)		-0.036 (0.053)
Default In x Withdraws Entire Salary on Payday		-0.084 (0.077)		-0.064 (0.076)
Withdraws Entire Salary on Payday (=1)		0.072 (0.052)		0.072 (0.052)
Default In x Capable of Fixing Phone		0.061 (0.075)		0.003 (0.074)
Capable of Fixing Phone (=1)		0.030 (0.051)		0.030 (0.051)
Constant	0.870 (0.068)	0.738 (0.165)	0.870 (0.068)	0.738 (0.165)
Control Mean	0.72	0.73	0.72	0.73
# Employees	702	678	702	678
R-Squared	0.082	0.121	0.135	0.169

Notes: See Table 5 notes. Robust standard errors reported in parentheses.

Table A16: The Default Effect: Additional Heterogeneity

	Participates (=1)												
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Default In (=1)	0.413	0.365	0.495	0.439	0.448	0.410	0.435	0.399	0.416	0.392	0.413	0.372	0.565
	(0.034)	(0.046)	(0.076)	(0.043)	(0.063)	(0.050)	(0.072)	(0.088)	(0.135)	(0.045)	(0.045)	(0.048)	(0.213)
Default In x Present Biased		0.117											0.095
		(0.069)											(0.074)
Default In x Impatient			-0.099										-0.107
			(0.085)										(0.089)
Default In x Cognitive Reflection Test				-0.049									-0.037
				(0.045)									(0.050)
Default In x Risk Preference					-0.007								-0.005
					(0.011)								(0.011)
Default In x Salary						0.000							0.000
						(0.000)							(0.000)
Default In x Tenure at Roshan							-0.004						-0.009
							(0.011)						(0.013)
Default In x Male								0.013					-0.045
								(0.096)					(0.102)
Default In x Education Level									0.000				-0.016
									(0.027)				(0.032)
Default In x Uses a Bank Account										0.048			0.020
										(0.070)			(0.075)
Default In x Withdraws Entire Salary on Payday											-0.002		0.027
											(0.070)		(0.074)
Default In x Capable of Fixing Phone												0.092	0.119
												(0.069)	(0.072)
Present Biased (=1)		-0.083											-0.085
		(0.048)											(0.049)
Impatient (=1)			0.021										-0.009
			(0.057)										(0.059)
Cognitive Reflection Test (0-3)				0.052									0.052
				(0.032)									(0.034)
Risk Preference (1-10)					0.004								0.002
					(0.007)								(0.007)
Salary						0.000							0.000
						(0.000)							(0.000)
Tenure at Roshan (Years)							0.003						0.002
							(0.008)						(0.009)
Male (=1)								-0.106					-0.087
								(0.074)					(0.079)
Education Level									-0.017				-0.024
									(0.019)				(0.024)
Uses a Bank Account										0.014			0.036
										(0.049)			(0.054)
Withdraws Entire Salary on Payday											-0.036		-0.058
											(0.048)		(0.052)
Capable of Fixing Phone												-0.016	-0.033
												(0.048)	(0.050)
Constant	0.276	0.310	0.260	0.248	0.259	0.263	0.258	0.367	0.352	0.271	0.291	0.284	0.480
	(0.024)	(0.032)	(0.050)	(0.029)	(0.041)	(0.038)	(0.050)	(0.069)	(0.094)	(0.030)	(0.032)	(0.033)	(0.151)
# Observations	702	702	702	693	701	702	689	702	701	702	702	702	678
R-Squared	0.171	0.175	0.173	0.173	0.171	0.172	0.169	0.176	0.174	0.173	0.172	0.174	0.197

Notes: Participates (=1) is a binary variable that equals one if the contribution rate is greater than zero, and reflect values observed as of February 28, 2015, following the first two paydays but prior to the rollout of phone surveys or secondary interventions. Present Biased (=1) is a binary variable that equals one if an employee is identified as having $\beta < 1$ in an experimental present bias elicitation completed at endline with real stakes and Impatient (=1) is a binary variable that equals one if an employee is identified as having $\delta < 1$ (see paper text for details). The additional covariates are: cognitive reflection task, risk preference, salary, tenure at Roshan, gender, education level, uses a bank account, withdraws entire salary on payday, and capable of fixing a phone – see Appendix D.2 for questions. Robust standard errors reported in parentheses.

Table A17: Which Element of the Consultation is Associated with Switching: Heterogeneity

Dependent Variable:	Changed Contribution After February 28 (=1)			
	(1)	(2)	(3)	(4)
<i>Panel A: Assigned Consultation</i>				
Assigned Consultation (=1)	0.091 (0.018)	-0.006 (0.015)	0.061 (0.021)	0.039 (0.034)
Assigned Consultation x Still at Default		0.165 (0.027)		0.031 (0.040)
Assigned Consultation x Defaulted In			0.060 (0.031)	-0.068 (0.034)
Assigned Consultation x Still at Default x Defaulted In				0.298 (0.062)
Constant	0.037 (0.009)	0.037 (0.009)	0.037 (0.009)	0.037 (0.009)
R-squared	0.027	0.071	0.033	0.123
# Employees	927	927	927	927
<i>Panel B: Accepted Consultation</i>				
Accepted Consultation (=1)	0.154 (0.024)	0.028 (0.022)	0.124 (0.030)	0.079 (0.043)
Accepted Consultation x Still at Default		0.214 (0.036)		0.066 (0.054)
Accepted Consultation x Defaulted In			0.060 (0.042)	-0.084 (0.043)
Accepted Consultation x Still at Default x Defaulted In				0.312 (0.078)
Constant	0.017 (0.012)	0.017 (0.012)	0.017 (0.012)	0.017 (0.012)
R-squared	0.040	0.112	0.046	0.165
# Employees	443	443	443	443
<i>Panel C: Calculation Assistance</i>				
Calculation Assistance (=1)	0.439 (0.054)	0.143 (0.071)	0.362 (0.069)	0.193 (0.095)
Calculation Assistance x Still at Default		0.447 (0.092)		0.277 (0.128)
Calculation Assistance x Defaulted In			0.178 (0.102)	-0.147 (0.128)
Calculation Assistance x Still at Default x Defaulted In				0.399 (0.174)
Constant	0.045 (0.015)	0.045 (0.015)	0.045 (0.015)	0.045 (0.015)
R-squared	0.278	0.373	0.294	0.398
# Employees	295	295	295	295

Notes: See Table 6 notes. This table reports which elements of the financial consultation predict whether an employee switches their contribution. Robust standard errors are reported in parentheses.

Table A18: Consultation Offer and Present Bias (Unincentivized Baseline Measure)

	Accepted Consultation (=1)				
	(1)	(2)	(3)	(4)	(5)
Consult Later	0.063 (0.045)	0.067 (0.045)	0.064 (0.053)	0.042 (0.064)	0.395 (0.251)
Present Biased (=1)			-0.048 (0.074)	-0.051 (0.076)	-0.058 (0.077)
Consult Later x Present Biased			0.018 (0.100)	-0.002 (0.101)	0.015 (0.103)
Impatient (=1)				0.009 (0.070)	0.008 (0.071)
Consult Later x Cognitive Reflection Test					-0.022 (0.058)
Consult Later x Risk Preference					0.001 (0.016)
Consult Later x Salary					-0.003 (0.002)
Consult Later x Tenure at Roshan					-0.004 (0.017)
Consult Later x Male					-0.214 (0.148)
Consult Later x Education Level					-0.014 (0.042)
Consult Later x Uses a Bank Account					0.094 (0.096)
Consult Later x Withdraws Entire Salary on Payday					-0.042 (0.096)
Consult Later x Capable of Fixing Phone					-0.005 (0.097)
Constant	0.716 (0.032)	0.820 (0.120)	0.829 (0.122)	0.827 (0.122)	0.631 (0.174)
Control Mean	0.76	0.76	0.76	0.76	0.76
Covariates	No	Yes	Yes	Yes	Yes
# Observations	380	380	380	380	380
R-Squared	0.005	0.036	0.038	0.041	0.063

Notes: Accepted Consultation Offer (=1) is a binary variable that equals one if the employee agreed to participation in a financial consultation regarding their participation in the M-Pasandaz program (see paper text for details). Consult Later (=1) is a binary variable that equals zero if the employee was randomly assigned to receive a consultation on the same day as the consultation offer was made, and equals one if the consultation was assigned to take place one week later. Present Biased (=1) is a binary variable that equals one if an employee is identified as having $\beta < 1$ in an unincentivized present bias elicitation completed at baseline and Impatient (=1) is a binary variable that equals one if an employee is identified as having $\delta < 1$ (see paper text for details). Columns (2), (4) and (5) include covariates for cognitive reflection task, risk preference, salary, tenure at Roshan, gender, education level, uses a bank account, withdraws entire salary on payday, and capable of fixing a phone – see Appendix D.2 for questions. Robust standard errors reported in parentheses.

Table A19: Which Treatments Move Participants From Their Default Contribution?

Dependent Variable:	Changed Contribution After Feb. 28 (=1)		
	(1)	(2)	(3)
Financial Consultation (=1)	0.097 (0.020)	0.033 (0.013)	0.066 (0.033)
Financial Consultation x Still at Default		0.109 (0.034)	
Financial Consultation x Defaulted In			0.195 (0.068)
SMS Reminder (=1)	0.014 (0.019)	0.011 (0.011)	-0.002 (0.030)
SMS x Still at Default		0.006 (0.032)	
SMS x Defaulted In			0.060 (0.070)
Still at Default (=1)		0.053 (0.020)	
Defaulted In (=1)			0.037 (0.043)
Constant	0.032 (0.012)	0.000 (0.000)	0.038 (0.022)
R-squared	0.026	0.073	0.103
# Employees	888	888	526
Sample	Full	Full	Still at Default

Notes: This table reports the comparative effectiveness of different treatments designed to move participants from their default election. SMS Reminder is a dummy variable equal to one for participants receiving an SMS reminder message, Consultation is dummy equal to one for subjects receiving an offer of a financial consultation, Still at Default is a dummy variable equal to one for participants who have not moved from their default election, and β is a measure of present-bias obtained from a hypothetical price list experiment at baseline. N of 888 employees reflects attrition before the end of the study on July 31st; results available on request confirm no differential attrition by assignment to Consultation or SMS treatment. Robust standard errors reported in parentheses.

Table B1: The Default Effect on Total Contributions (incl. strata fixed effects)

	(1)	(2)	(3)	(4)
<i>Panel A.</i> Dependent Variable = Participates (non-zero contribution rate)				
Default In (=1)	0.41 (0.03)	0.47 (0.04)	0.45 (0.05)	0.30 (0.05)
Constant	0.24 (0.04)	-0.01 (0.05)	0.22 (0.07)	0.52 (0.08)
Sample	Complete	0% Match	25% Match	50% Match
# Observations	935	315	311	309
R-Squared	0.193	0.377	0.280	0.246
<i>Panel B.</i> Dependent Variable = Contribution Rate (% of Salary)				
Default In (=1)	1.80 (0.26)	2.39 (0.22)	2.33 (0.47)	0.64 (0.47)
Constant	2.33 (0.37)	-0.06 (0.26)	1.94 (0.63)	5.25 (0.76)
Sample	Complete	0% Match	25% Match	50% Match
# Observations	935	315	311	309
R-Squared	0.091	0.369	0.194	0.164
<i>Panel C.</i> Dependent Variable = Total M-Pasandaz Contributions (Afs)				
Default In (=1)	2578.78 (707.45)	2230.65 (662.61)	3291.81 (1299.58)	2377.44 (1368.33)
Constant	790.86 (454.77)	-542.47 (392.81)	313.46 (819.92)	2558.15 (910.81)
Sample	Complete	0% Match	25% Match	50% Match
# Observations	948	319	315	314
R-Squared	0.168	0.118	0.236	0.332

Notes: Dependent variable in top panel, Participates (=1), is a binary variable that equals one if the contribution rate is greater than zero, and dependent variable in middle panel, Contribution Rate (% of Salary), is the monthly contribution rate into M-Pasandaz as a percent of total salary. Participates and Contribution Rate reflect values observed as of February 28, 2015, following the first two paydays but prior to the rollout of phone surveys or secondary interventions. Dependent variable in third panel is total contributions made by the employee to M-Pasandaz, in Afghanis, as observed in administrative data. Value reflects total contributions net of withdrawals as of July 15, 2015, just prior to the disbursement of matching incentives. Value does not include matching contributions made by the employer. Stratum fixed effects are included. Robust standard errors reported in parentheses.

Table B2: The Default Effect on Active Decision at Trial End (incl. strata fixed effects)

	Continued M-Pasandaz After Program (=1)			
	(1)	(2)	(3)	(4)
Default In (=1)	0.10 (0.03)	0.16 (0.06)	0.07 (0.06)	0.10 (0.06)
Constant	0.34 (0.05)	0.20 (0.08)	0.38 (0.09)	0.45 (0.10)
Sample	Complete	0% Match	25% Match	50% Match
# Observations	810	272	276	262
R-Squared	0.081	0.110	0.136	0.103

Notes: Dependent variable is a binary indicator that equals one if the employee made an active decision to continued contributing to the M-Pasandaz after the 6 month study ended with no matching incentives offered. Stratum fixed effects are included. Robust standard errors reported in parentheses.

Table B3: Which Element of the Consultation is Associated with Switching (incl. strata fixed effects)?

Dependent Variable:	Changed Contribution After February 28 (=1)			
	(1)	(2)	(3)	(4)
Assigned Consultation (=1)	0.091 (0.018)			
Accepted Consultation (=1)		0.157 (0.025)		
Did Not Delay Consultation (=1)			-0.098 (0.260)	-0.097 (0.264)
Asked for Overview of M-Paz (=1)			0.050 (0.047)	0.072 (0.052)
Initial Questions about M-Paz (=1)			0.052 (0.050)	0.057 (0.055)
Aware of M-Paz Plan and Rate (=1)			-0.146 (0.092)	-0.166 (0.106)
Asked to Repeat Projected Balance (=1)			0.128 (0.066)	0.124 (0.071)
Calculation Assistance (=1)			0.394 (0.059)	0.408 (0.060)
Additional Questions about M-Paz (=1)			0.036 (0.059)	0.019 (0.066)
Control Mean	0.06	0.10	0.15	0.16
Covariates	NO	NO	NO	YES
R-squared	0.036	0.057	0.347	0.365
# Employees	927	443	295	287

Notes: This table reports which elements of the financial consultation predict whether an employee switches their contribution. 469 of the 928 employees still active in our study at the time of this intervention were assigned to be offered a consultation, establishing the sample for column (1). Of these, 443 employees answered the call making the initial offer, establishing the sample for column (2). Of these 443, 327 employees agreed to a full consultation. Accepted Consultation is a dummy variable equal to 1 for these employees. Of the 327 employees who accepted the consultation, 295 were reached by the second caller offering the consultation, forming the sample for column (3). Of the 295 employees who both accepted and who were reached for a consultation, all completed the consultation. 291 were able to talk immediately (Did Not Delay Consultation=1), while 4 could not and were reached later. 259 requested an overview of the M-Pasandaz product (Asked for Overview of M-Paz=1), while 36 did not. 91 employees had initial questions about the M-Pasandaz product (Initial Questions about M-Paz=1), while 204 did not. 285 confirmed that they were aware of their plan and contribution rate (Aware of M-Paz Plan and Rate=1), while 10 were not. All were informed of their projected balance after six months including any potential bonus payments, and 52 employees asked for this information to be repeated (Asked to Repeat Projected Balance=1), while 242 did not. All were offered assistance with calculating how much money they would earn in different contribution scenarios, 95 requested assistance (Calculation Assistance=1), while 200 did not. Requesting assistance was not required to change the level of contribution to M-Pasandaz during the consultation call. 53 employees had additional questions about the M-Pasandaz product (Additional Questions about M-Paz=1), while 242 did not. Sample size in column 1 includes full sample subject to attrition when consultation was offered, column 2 sample includes all employees assigned a consultation, column 3 sample includes all employees who accepted a consultation, and column 4 excludes employees missing covariates. The additional covariates are: cognitive reflection test, risk preference, salary, tenure at Roshan, gender, education level, uses a bank account, withdraws entire salary on payday, and capable of fixing a phone. Stratum fixed effects are included. Robust standard errors are reported in parentheses.

Table B4: Consultation Offer Results By Present Bias (incl. strata fixed effects)

	Accepted Consultation (=1)				
	(1)	(2)	(3)	(4)	(5)
Consult Later	0.078 (0.049)	0.079 (0.049)	-0.012 (0.067)	0.026 (0.133)	0.458 (0.274)
Present Biased (=1)	0.053 (0.048)		-0.050 (0.069)	-0.047 (0.070)	-0.008 (0.071)
Consult Later x Present Biased			0.218 (0.097)	0.211 (0.097)	0.162 (0.099)
Impatient (=1)				0.022 (0.098)	0.051 (0.099)
Consult Later x Cognitive Reflection Test					-0.048 (0.070)
Consult Later x Risk Preference					-0.012 (0.018)
Consult Later x Salary					-0.004 (0.002)
Consult Later x Tenure at Roshan					0.005 (0.017)
Consult Later x Male					-0.108 (0.156)
Consult Later x Education Level					-0.015 (0.040)
Consult Later x Uses a Bank Account					0.087 (0.104)
Consult Later x Withdraws Entire Salary on Payday					-0.160 (0.098)
Consult Later x Capable of Fixing Phone					-0.051 (0.106)
Constant	0.768 (0.150)	0.785 (0.149)	0.839 (0.154)	0.818 (0.186)	0.595 (0.237)
Control Mean	0.77	0.77	0.77	0.77	0.77
Covariates	No	Yes	Yes	Yes	Yes
# Observations	329	329	329	329	329
R-Squared	0.069	0.066	0.084	0.084	0.121

Notes: Accepted Consultation Offer (=1) is a binary variable that equals one if the employee agreed to participation in a financial consultation regarding their participation in the M-Pasandaz program (see paper text for details). Consult Later (=1) is a binary variable that equals zero if the employee was randomly assigned to receive a consultation on the same day as the consultation offer was made, and equals one if the consultation was assigned to take place one week later. Present Biased (=1) is a binary variable that equals one if an employee is identified as having $\beta < 1$ in an experimental present bias elicitation completed at endline with real stakes and Impatient (=1) is a binary variable that equals one if an employee is identified as having $\delta < 1$ (see paper text for details). Columns (2), (4) and (5) include covariates for cognitive reflection task, risk preference, salary, tenure at Roshan, gender, education level, uses a bank account, withdraws entire salary on payday, and capable of fixing a phone – see Appendix D.2 for questions. Stratum fixed effects are included. Robust standard errors reported in parentheses.

D Experimental Scripts

D.1 Financial Consultation

Hello XXX. I am calling on behalf of the M-Pasandaz research team department. I am calling because you recently requested that a representative call you to provide you with additional information about M-Pasandaz, and determine how to use M-Pasandaz in the way that is best for you. This consultation will last roughly 5-10 minutes. Are you able to speak to me now? [RECORD RESPONSE]

Thank you for taking the time to speak with me. As you know, M-Pasandaz is a new benefit that is being offered to Roshan employees. In this call, you will have the opportunity to ask questions about M-Pasandaz. I will provide information about how much savings you would have for different levels of monthly contribution. At the end of the call, you will also have the opportunity to change the level of your contribution if you would like.

First of all, would you like me to give you a brief overview of the M-Pasandaz account? [YES/NO]

If YES: M-Pasandaz is a new benefit for all Roshan employees that was designed to help increase your savings. It is a mobile savings account that is linked to your M-Paisa account. A portion of your monthly salary - up to a maximum of 10% - can be automatically deposited into your M-Pasandaz account each month. Participating in the M-Pasandaz account is voluntary and you may receive benefits from Roshan to encourage you to save for the future. You can access the money in your M-Pasandaz account at any time, but if you contribute and dont make any withdrawals for 6 months, you may be eligible for a bonus from Roshan as a reward for savings.

To begin, we would like to ask if there are any questions we might answer about M-Pasandaz. [YES/NO]

Now, since every person has a different situation, I would like to explain several different scenarios, to help you understand how different levels of M-Pasandaz contributions would work for you. According to our records, you are in the [WHITE/BLUE/RED] plan, and you currently have a monthly contribution rate of [XX%]. Were you aware that this was your plan and contribution rate? [YES/NO]

According to our records, you have a monthly salary of XXX. Since you are in the [WHITE/BLUE/RED] plan, you are eligible to receive a matching contribution Roshan of [0/25/50] percent for all money that you save in your M-Pasandaz account. Our records also show that you [HAVE/HAVE NOT] made a withdrawal from your M-Pasandaz account, meaning that you [ARE NOT/ARE] still eligible to receive your matching contribution. Therefore, if you continue to contribute at your current rate and make no withdrawals, at the end of the trial period in July, you would have a total value of MMM in your M-Pasandaz account. This reflects both your contribution and the contribution of Roshan to the account on your behalf. Would you like me to repeat this information for you? [YES/NO]

Thank you. Of course, you are always free to change your monthly contribution rate. If you like, I can explain to you exactly what would happen if you decided to change your match to a different amount. Would you like me assist you by explaining what would happen if you changed your contribution rate to a different amount? [YES/NO]

If YES: What scenario would you like me to explain? The contribution rate can be

anywhere between 0% and 10% of your monthly salary. [RECORD ANSWER]

Do you have any additional questions about how M-Pasandaz works, or can I provide any additional information that can help you determine how to use M-Pasandaz in the way that is best for you? [YES/NO]

Thank you. Now, I would like to offer you the opportunity to change your contribution rate. If you wish, you can tell me your preferred rate, and I will change it for you. Alternatively, you always have the opportunity to call HR at a later date and change the contribution. Would you like me to change your contribution rate? [YES/NO]

If YES: What would you like your new rate to be: [RECORD RESPONSE]

Thank you very much for your time. Goodbye.

D.2 Survey instrument (selected questions)

Endline survey questions (savings behavior, financial security, and wellbeing)

Roshan leadership is reviewing the results of the M-Pasandaz pilot program, and will be making a decision in the next few months about its future. In the meantime, we would like to offer you the opportunity to continue to have a portion of your salary deposited automatically in the M-Pasandaz account each month. For deposits made starting in August there will be no matching incentive paid, but you are welcome to continue to have part of your salary deducted and placed in savings if you find this useful. For these deposits, you will be free to make withdrawals at any time without penalty.

Would you enroll now to have part of your salary deposited each month starting in August?			
1	Yes	98	Don't Know
2	No	99	Refuse to Answer

How important do you think savings is - extremely important, very important, somewhat important, not very important, not at all important?			
1	Extremely important	4	Not very important
2	Very important	5	Not at all important
3	Somewhat important		

Do you attempt to save money each month?			
1	Yes	98	Don't Know
2	No	98	Refuse to Answer

If "1" means you are completely dissatisfied on this scale, and "10" means you are completely satisfied, where would you put your satisfaction with your household's financial situation?	
_ _ _	
99	Refuse to Answer

On a scale of 1-10, how satisfied are you personally with the financial situation of your household?	
_ _ _	
99	Refuse to Answer

How confident do you feel that you will be able to meet your financial obligations (pay your bills, buy food/clothes) during the coming month: Highly confident, somewhat confident, Somewhat not confident, Not confident at all?			
1	Highly confident	3	Some What not confident
2	Somewhat confident	4	Not confident at all

How confident do you feel that you will be able to meet your financial obligations 1 year from now: Highly confident, somewhat confident, Somewhat not confident, Not confident at all?			
1	Highly confident	3	Some What not confident
2	Somewhat confident	4	Not confident at all

Do you feel that you will be able to someday retire, stop working, and live off of your accumulated savings?			
1	Yes	2	No

What prevents you from saving? (not important, too many expenses, benefits are too small, no place to save, etc)			
1	Not important	3	Benefits too small
2	Too many expenses	4	No place to save
5	Other (Specify)		

During the last seven days how many times did one or more people in your household not receive a regular daily meal?	
_ _ Times	

Taking all things together, do you think you are, Very happy, Somewhat happy, little happy or Not at all Happy:			
1	Very happy	3	little happy
2	Somewhat happy	4	Not at all happy
99	Refuse to Answer		

All things considered, how satisfied are you with life as a whole? Please tell me your answer on a 10 point scale, where 1 represents Most Dissatisfied, 10 represents Most Satisfied."	
10 point scale: 10=Satisfied; 1=Dissatisfied	
_ _ _	
99	Refuse to Answer

All in all, how would you describe your state of physical health these days? Would you say it is...?			
1	Very good	4	Poor
2	Good	98	Don't Know
3	Fair		

Over the past 3 months were you unable to perform normal activities for at least 7 days due to an illness/injury?			
1	Yes	2	No

Has your participation in M-Pasandaz changed your desire to save?			
1	Yes	98	Don't Know
2	No	99	Refuse to Answer

Baseline survey questions (intelligence, risk, preferences)

<p>If it takes five machines five minutes to make five widgets, how long does it take 100 machines to make 100 widgets?</p>			
__ __ Min			
98	Don't Know	99	Refuse to Answer

<p>In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake?</p>			
__ __ Days			
98	Don't Know	99	Refuse to Answer

<p>Suppose Ahmad earns a salary of 1000 dollars a month. He obtains a ten percent raise this year and a ten percent raise next year. How much exactly will his income be after the second raise?</p>			
_ _ _ _ _			
98	Don't Know	99	Refuse to Answer

There are many decisions we make in life that could lead to a range of outcomes. For example, when we make a business investment, we are not sure that the business will be successful. This phenomenon is called risk. Many decisions involve risk. For example, if you decide to sell a new type of product or service, how much profit will you earn? We are interested in understanding more about how business owners think about risk.

<p>How do you see yourself - are you in general a person who takes risk or do you try to avoid risks? Please self-grade your choice (ranging between 0-10), where 0 represents "not at all prepared to take risk" and 10 represents extremely prepared to take risk.</p>			
__ __			

<p>How many bank accounts do you personally do you have?</p>		__	
98	Don't Know	99	Refuse to Answer

If you had a technical problem with your cell phone, who would you mainly ask for help? (for example if your phone would not turn on or allow you to make calls)			
1	I can fix it myself	4	Cell phone retailer/repair shop
2	A relative	5	I would purchase a new phone
3	A neighbor or friend		
6	Other (Specify)		

Do you withdraw your entire salary each month after you are paid, or do you leave a fraction on M-paisa?	
1	Withdraw entire monthly salary
2	Leave some fraction on as an M-paisa balance

D.3 Present Bias Elicitation

Below, we provide the survey instrument used to elicit the present bias parameter used in the regression in Table 5. This instrument is a modified version of the time-dated price list method proposed by [Andreoni et al. \(2015\)](#), where payments were made using M-Paisa (mobile money). In our case, the incentivized measure leverages the fact that employees had received their salaries using mobile money for several years, and therefore had a high degree of confidence that they would receive their payments.

As noted in the text, however, this measure may be fungible to respondents ([Cubitt and Read, 2007](#); [Chabris et al., 2008](#); [Andreoni and Sprenger, 2012](#); [Augenblick et al., 2015](#); [Carvalho et al., 2014](#); [Andreoni et al., 2016](#)). In addition, we lack endline inconsistency measures for 175 employees, or 18.4% of our sample. Of these, 131 (13.8% of sample) did not complete an endline survey - primarily due to leaving Roshan before the end of the experiment. The remaining 44 employees (4.6% of sample) completed endline surveys but did not complete the inconsistency elicitation.

For this reason, we also separately estimate the regressions in Table 5 using a different measure of present bias, elicited at baseline. In this protocol, subjects were asked: “Suppose someone was going to pay you USD 450 in one month. He/she offers to pay you a lower amount today. What amount today would make you just as happy as receiving USD 450 in one month?” and “Suppose someone was going to pay you USD 450 in 13 months. He/she offers to pay you a lower amount in 12 months time. What amount in 12 months would make you just as happy as receiving USD 450 in 13 months?” We identify someone as present-biased if the response to the first question is a lower amount than the response to the second question.

Results using this measure of present bias are reported in Table A14, and are qualitatively similar to those in the main text. All employees in our sample completed a baseline survey but 53 employees (5.5% of sample) did not complete the baseline elicitation.

TODAY and 4 WEEKS from today

For each decision number (1 to 5) below, decide the AMOUNTS you would like for sure today AND in 4 weeks by checking the corresponding box.

Example: In Decision 1, if you wanted AFN 250 today and AFN 0 in four weeks you would check the left-most box. Remember to check only one box per decision!

1. Would you like to receive	Payment TODAY	AFN 250	AFN 125	AFN 0
	<u>and</u>			
	payment in 4 WEEKS	AFN 0	AFN 125	AFN 250
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Would you like to receive	Payment TODAY	AFN 225	AFN 113	AFN 0
	<u>and</u>			
	payment in 4 WEEKS	AFN 0	AFN 125	AFN 250
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Would you like to receive	Payment TODAY	AFN 200	AFN 100	AFN 0
	<u>and</u>			
	payment in 4 WEEKS	AFN 0	AFN 125	AFN 250
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Would you like to receive	Payment TODAY	AFN 175	AFN 88	AFN 0
	<u>and</u>			
	payment in 4 WEEKS	AFN 0	AFN 125	AFN 250
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Would you like to receive	Payment TODAY	AFN 150	AFN 75	AFN 0
	<u>and</u>			
	payment in 4 WEEKS	AFN 0	AFN 125	AFN 250
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4 WEEKS and 8 WEEKS from today

For each decision number (6 to 10) below, decide the **AMOUNTS** you would like for sure **in 4 weeks** **AND in 8 weeks** by checking the corresponding box.

Example: In Decision 6, if you wanted AFN 250 in four weeks and AFN 0 in eight weeks you would check the left-most box. Remember to check only one box per decision!

6. Would you like to receive	payment in 4 WEEKS...	AFN 250	AFN 125	AFN 0
	<i>and</i>			
	payment in 8 WEEKS	AFN 0	AFN 125	AFN 250
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Would you like to receive	payment in 4 WEEKS...	AFN 225	AFN 113	AFN 0
	<i>and</i>			
	payment in 8 WEEKS	AFN 0	AFN 125	AFN 250
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Would you like to receive	payment in 4 WEEKS...	AFN 200	AFN 100	AFN 0
	<i>and</i>			
	payment in 8 WEEKS	AFN 0	AFN 125	AFN 250
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Would you like to receive	payment in 4 WEEKS...	AFN 175	AFN 88	AFN 0
	<i>and</i>			
	payment in 8 WEEKS	AFN 0	AFN 125	AFN 250
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Would you like to receive	payment in 4 WEEKS...	AFN 150	AFN 75	AFN 0
	<i>and</i>			
	payment in 8 WEEKS	AFN 0	AFN 125	AFN 250
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

References

- Andreoni, James and Charles Sprenger**, “Estimating Time Preferences with Convex Budgets,” *American Economic Review*, 2012, *102* (7), 3333–3356.
- , **Michael A. Kuhn, and Charles Sprenger**, “Measuring Time Preferences: A Comparison of Experimental Methods,” *Journal of Economic Behavior & Organization*, 2015, *116*.
- , **Michael Callen, Karrar Hussain, Muhammad Yasir Khan, and Charles Sprenger**, “Using Preference Estimates to Customize Incentives: An Application to Polio Vaccination Drives in Pakistan,” 2016.
- Augenblick, Ned, Muriel Niederle, and Charles Sprenger**, “Working Over Time: Dynamic Inconsistency in Real Effort Tasks,” *Quarterly Journal of Economics*, 2015, *130* (3), 1067–1115.
- Bernheim, Douglas, Andrey Fradkin, and Igor Popov**, “The Welfare Economics of Default Options in 401(k) Plans,” *American Economic Review*, September 2015, *105* (9), 2798–2837.
- Beshears, John, James Choi, David Laibson, and Brigitte Madrian**, “The limitations of defaults,” Technical Report, National Bureau of Economic Research 2010.
- , **James J. Choi, David Laibson, and Brigitte C. Madrian**, “The importance of default options for retirement saving outcomes: Evidence from the United States,” in “Social security policy in a changing environment,” University of Chicago Press, 2009, pp. 167–195.
- , – , – , and – , “The Impact of Employer Matching on Savings Plan Participation under Automatic Enrollment,” *NBER*, February 2010, pp. 311–327.
- Bronchetti, Erin Todd, Thomas S Dee, David B Huffman, and Ellen Magenheim**, “When a nudge isn’t enough: defaults and saving among low-income tax filers,” Working Paper 16887, National Bureau of Economic Research March 2011.
- Brune, Lasse, Xavier Giné, Jessica Goldberg, and Dean Yang**, “Savings defaults and payment delays for cash transfers: Field experimental evidence from Malawi,” *Journal of Development Economics*, November 2017, *129*, 1–13.
- Callen, Michael, Suresh de Mel, Craig McIntosh, and Christopher Woodruff**, “What Are the Headwaters of Formal Savings? Experimental Evidence from Sri Lanka,” 2017.
- Carroll, Gabriel D., James J. Choi, David Laibson, Brigitte C. Madrian, and Andrew Metrick**, “Optimal Defaults and Active Decisions,” *The Quarterly Journal of Economics*, November 2009, *124* (4), 1639–1674.

- Carvalho, Leandro S., Stephan Meier, and Stephanie W. Wang**, “Poverty and Economic Decision-Making: Evidence from Changes in Financial Resources at Payday,” *Working Paper*, 2014.
- Chabris, Christopher F., David Laibson, and Jonathon P. Schuldt**, “Intertemporal Choice,” in Steven N. Durlauf and Larry Blume, eds., *The New Palgrave Dictionary of Economics*, London: Palgrave Macmillan, 2008.
- Chetty, Raj, John N. Friedman, Søren Leth-Petersen, Torben Heien Nielsen, and Tore Olsen**, “Active vs. Passive Decisions and Crowd-Out in Retirement Savings Accounts: Evidence from Denmark,” *The Quarterly Journal of Economics*, August 2014, 129 (3), 1141–1219.
- Choi, James J., David Laibson, Brigitte C. Madrian, and Andrew Metrick**, “For better or for worse: Default effects and 401 (k) savings behavior,” in “Perspectives on the Economics of Aging,” University of Chicago Press, 2004, pp. 81–126.
- Cubitt, Robin P. and Daniel Read**, “Can Intertemporal Choice Experiments Elicit Preferences for Consumption?,” *Experimental Economics*, 2007, 10 (4), 369–389.
- Dobrescu, LI, Xiaodong Fan, Hazel Bateman, BR Newell, Andreas Ortmann, and Susan Thorp**, “Retirement Savings: A Tale of Decisions and Defaults,” *The Economic Journal*, 2016.
- Goda, Gopi Shah and Colleen Flaherty Manchester**, “Incorporating employee heterogeneity into default rules for retirement plan selection,” *Journal of Human Resources*, 2013, 48 (1), 198–235.
- List, John A., Azeem M. Shaikh, and Yang Xu**, “Multiple Hypothesis Testing in Experimental Economics,” Technical Report 2016.
- Luco, Fernando**, “Switching costs and competition in retirement investment,” Working Paper, Mimeo, Northwestern University 2013.
- Madrian, Brigitte C. and Dennis F. Shea**, “The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior,” *The Quarterly Journal of Economics*, November 2001, 116 (4), 1149–1187.
- O’Donoghue, Ted and Matthew Rabin**, “Doing It Now or Later,” *American Economic Review*, 1999, 89 (1), 103–124.
- Rosenzweig, Mark R, Kenneth I Wolpin et al.**, “Credit Market Constraints, Consumption Smoothing, and the Accumulation of Durable Production Assets in Low-Income Countries: Investment in Bullocks in India,” *Journal of Political Economy*, 1993, 101 (2), 223–44.
- Somville, Vincent and Lore Vandewalle**, “Saving by Default: Evidence from a Field Experiment in Rural India,” *American Economic Journal: Applied Economics*, 2017, forthcoming.