

Online Appendix

Investigating the introduction of fintech advancement aimed to reduce limited attention regarding inactive savings accounts – data, survey and field experiment

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Appendix A

Appendix A– Variable description	
Y Variables	Description
Awareness of the Money Mountain campaign	Dummy variable for people who state that they have awareness of the campaign
Awareness of the tax exemption campaign	Dummy variable for people who state that they have awareness of the campaign
Visited the Money Mountain website	Dummy variable for people who state that they visited the Money Mountain website
Contact with the intention of closing inactive account	Dummy variable for people who state that they contacted their retirement fund provider about closing inactive accounts (withdraw or transfer savings)
X Variables	Description
Objective financial literacy index	Financial literacy index, which is the sum of correct answers to three questions about interest rate, inflation, and diversification risk
Age	Value in years
Subjective financial literacy	Dummy variable for all those who answer that their understanding of retirement issues is good or excellent
Interest in retirement	Dummy variable for all those who answer that their interest in retirement issues is good or excellent
Interest rate question	Dummy variable for all those who answer correctly
Inflation question	Dummy variable for all those who answer correctly
Diversification question	Dummy variable for all those who answer correctly
Married	Dummy variable for married
Income level	Dummy variables for below-average income, average income, and above-average income
Education level	Dummy variables for high school education, Non-academic above high school education, and academic education
Religious identity	Dummy variables for secular, traditional, religious, and ultra-Orthodox
Work status	Dummy variables for employed (including voluntary army service and part-time employment), non-workers (including mandatory service and student status), and retired
Immigrant	Dummy variable for immigrant

Appendix B

Appendix B - Mean differences of closed accounts during tax exemption campaign by different population subsets						
(Number, means, %)						
Population subsets:	Age>60	Age<35	Periphery index above country median¹	Socioeconomic index above country median²	From Arab locality	Female
N	1,787	3,074	6,582	6,144	499	6,852
% Closed accounts	23%	15%	18%	18%	11%	16%
Population subsets	Age<61	Age>34	Periphery index below country median¹	Socioeconomic index below country median²	Not from Arab locality	Male
N	10,937	9,650	1,311	3,109	12,236	5,883
% Closed accounts	15%	17%	15%	13%	16%	16%
X square of difference of proportions between groups % closed accounts	67.41***	4.35**	6.4**	46.7***	11.5***	0.52
1. Periphery index of local authorities in Israel from the Israeli CBS (1 is for authorities on the outskirts of the country and 5 is for authorities in the heart of the country). The country median is 3 and the mean is 2.8. Data is presented for subsets above or below the country median.						
2. Socioeconomic index of local authorities in Israel from the Israeli Central Bureau of Statistics (1 is for low economic authorities and 10 is for high socioeconomic authorities). The country median is 5 and the mean is 4.8. Data is presented for subsets above or below the country median.						
*** p<0.01, ** p<0.05, * p<0.1.						
<i>Notes: The table shows the number and percentage of closed accounts out of all eligible accounts during the tax exemption campaign, from the beginning of March 2014 to the end of July 2015, for different population subsets. Data obtained from a large provident fund provider.</i>						

Appendix C

Appendix C1- Awareness of campaigns			
		(1)	(2)
Variables:		Awareness of the Money Mountain campaign	Awareness of the tax exemption campaign
Objective Financial literacy		0.281** (0.116)	0.337*** (0.125)
Subjective Financial literacy		0.937** (0.414)	1.497*** (0.454)
Age		0.015 (0.01)	0.024** (0.01)
Female		-0.347 (0.219)	-0.317 (0.231)
Married		0.054 (0.254)	0.348 (0.265)
Income Level	Average income	0.469 (0.439)	-0.086 (0.476)
	Above-average income	0.148 (0.255)	0.019 (0.273)
Education Level	Non-academic above high school education	-0.046 (0.272)	0.993*** (0.315)
	Academic education	0.272 (0.357)	0.959** (0.392)
Religious Identity	Traditional	0.026 (0.242)	-0.14 (0.259)
	Religious	-0.235 (0.329)	-0.254 (0.344)
	Ultra-Orthodox	-0.214 (0.736)	-0.348 (0.753)
Work Status	Non-workers	-0.6** (0.293)	-0.594* (0.32)
	Retired	-0.472 (0.516)	-0.278 (0.53)
Immigrant		-0.498* (0.297)	-0.135 (0.298)
Constant		-1.268*** (0.486)	-2.744*** (0.555)
Observations		424	424
McFadden Pseudo R²		0.23	0.29
AIC		562	517
Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.			
Notes: Each column represents a different regression of the effect of individual characteristics on awareness of financial campaigns. Column (1) reports a logit estimation of awareness of the Money Mountain campaign. Column (2) reports a logit estimation of awareness of the tax exemption campaign. Data obtained from the main survey sample.			

Appendix C2 - Actions taken following the campaigns							
		(1)¹	(2)²	(3)³	(4)¹	(5)²	(6)³
Variables:		Visited the Money Mountain website			Contact with the intention of closing inactive account		
Objective Financial literacy		0.1430	0.234**	0.188*	-0.050	0.0010	-0.028
		(0.115)	(0.102)	(0.109)	(0.171)	(0.147)	(0.159)
Subjective Financial literacy		1.447***	1.049***	1.234***	0.874**	1.398***	1.158***
		(0.494)	(0.383)	(0.436)	(0.432)	(0.324)	(0.37)
Age		0.027***	0.031***	0.029***	0.010	0.0080	0.009
		(0.01)	(0.009)	(0.009)	(0.014)	(0.011)	(0.012)
Female		-0.372*	-0.405**	-0.39*	-0.604*	-0.4520	-0.521*
		(0.22)	(0.198)	(0.209)	(0.326)	(0.278)	(0.302)
Married		0.1920	0.1980	0.190	0.2750	0.4660	0.373
		(0.25)	(0.226)	(0.238)	(0.376)	(0.319)	(0.348)
Income Level	Average income	0.0680	-0.0640	0.0040	0.1330	-0.1010	0.002
		(0.447)	(0.429)	(0.438)	(0.655)	(0.593)	(0.625)
	Above-average income	0.0730	-0.0190	0.0350	0.1440	-0.1980	-0.028
		(0.25)	(0.229)	(0.239)	(0.395)	(0.337)	(0.365)
Education Level	Non-academic above high school education	0.49*	0.2090	0.3430	-0.0320	0.2180	0.097
		(0.268)	(0.237)	(0.252)	(0.416)	(0.359)	(0.387)
	Academic education	0.734**	0.4970	0.608*	0.440	0.4880	0.47
		(0.364)	(0.33)	(0.347)	(0.501)	(0.442)	(0.472)
Religious Identity	Traditional	-0.432*	-0.3070	-0.3670	0.280	0.0260	0.157
		(0.244)	(0.219)	(0.232)	(0.345)	(0.298)	(0.321)
	Religious	-0.0170	0.0320	0.0040	0.1320	-0.0690	0.03
		(0.327)	(0.306)	(0.317)	(0.46)	(0.406)	(0.434)
Ultra-Orthodox	-0.0980	0.3130	0.1120	0.0210	0.2410	0.149	
	(0.69)	(0.62)	(0.652)	(1.112)	(0.818)	(0.949)	
Work Status	Non-workers	-0.2140	-0.2580	-0.2380	-1.11*	-0.5330	-0.803
		(0.278)	(0.254)	(0.266)	(0.572)	(0.431)	(0.495)
	Retired	-0.1510	-0.6580	-0.4240	-0.2270	-0.9530	-0.558
		(0.536)	(0.439)	(0.487)	(0.719)	(0.614)	(0.662)
Immigrant		0.0090	-0.1950	-0.0940	-0.4620	-0.0950	-0.26
		(0.288)	(0.269)	(0.279)	(0.474)	(0.371)	(0.417)
Constant		-1.45***	-1.242***	-1.351***	-2.245***	-2.339***	-2.287***
		(0.487)	(0.444)	(0.465)	(0.711)	(0.617)	(0.663)
Observations		424	539	539	424	539	539
McFadden Pseudo R2		0.24	0.23	0.24	0.27	0.24	0.27
AIC		559	682	561	333	447	335
<p>1. Main survey sample. 2. Main survey sample and complementary sample. 3. Main survey sample and weighted complementary sample. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.</p>							
<p><i>Notes: Each column represents a different regression of the effect of individual characteristics on action taken following the campaigns. Column (1)–(3) reports logit estimations of visiting the Money Mountain website for three different samples. Columns (4)–(6) reports logit estimations of contacting the retirement savings provider with the intention of closing inactive accounts as a result of the Money Mountain campaign or the tax exemption campaign for three different samples. Data obtained from survey.</i></p>							

Appendix D – Robustness checks

Appendix D1

For a robustness check on the proprietary data we used propensity score matching for accounts that were closed and those that were not closed using all available information¹ except the socioeconomic locality index. The matching process provided one group of 1,941 account holders that closed an account and 1,941 matched account holders that did not close an account. The difference in the average locality index of the two groups is statistically significant, (p-value of 0.03) indicating that there were indeed statistical differences in withdrawal rates that were correlated with socioeconomic attributes, even after controlling for all other available attributes.

For an additional robustness check we ran a propensity score matching for account holders from localities with low socioeconomic indices (with an index of 4 or less) to account holders from localities with higher socioeconomic indices using variables as in the former matching procedure. The matching process provided one group of 3,107 account holders from localities with low socioeconomic indices and 3,107 matched account holders from localities with higher socioeconomic indices. Based on the matched observations we estimate a logit regression and a linear model. In these regressions, the negative effect of having the account holder coming from a locality with low socioeconomic status on closing an account persists and is statistically significant at the 1% level. When estimating the logit regression with an interaction with account size (dummy variables for small, medium, and large accounts) we also find evidence that for small accounts the closing rate is significantly lower for people from low socioeconomic localities, above and beyond the negative effects of the low socioeconomic locality and account size by themselves.²

¹ Account holder gender, age, number of small inactive accounts in the provident fund the account holder has in his or her name, total savings in account, the percent of the funds that are attributed to severance pay (in Israel, the employer can deposit part, or all of the severance pay to the employee through the retirement savings. This component might affect transaction costs), the year the first deposit was made, the periphery score index of the locality, and the religious composition of the locality

² However, this outcome is not as robust: it is not significant at the 10% level in an OLS linear model.

Appendix D2 - Age squared, inquiry, and interest in retirement issues										
Variables:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
	Age square				Inquiry	Subjective financial literacy: Interest in retirement issues				
	Awareness of the Money Mountain campaign	Awareness of the tax exemption campaign	Visited the Money Mountain website	Contact with the intention of closing inactive account	Inquiry about inactive accounts	Awareness of the Money Mountain campaign	Awareness of the tax exemption campaign	Visited the Money Mountain website	Contact with the intention of closing inactive account	
Objective financial literacy	0.26** (0.12)	0.33*** (0.12)	0.15 (0.11)	-0.07 (0.17)	0.1 (0.16)	0.30*** (0.12)	0.36*** (0.13)	0.16 (0.12)	-0.02 (0.17)	
Subjective financial literacy (Confidence or Interest)	1.05** (0.41)	1.59*** (0.45)	1.47*** (0.49)	0.99** (0.43)	0.86* (0.45)	0.32 (0.24)	0.99*** (0.26)	0.77*** (0.26)	0.49 (0.32)	
Age	0.08 (0.06)	0.16** (0.07)	0.13** (0.06)	0.07 (0.09)	(0.02) (0.09)	0.02* (0.01)	0.02** (0.01)	0.03*** (0.01)	0.01 (0.01)	
Age Squared	0 (0.00)	-0.00** (0.00)	-0.00* (0.00)	0 (0.00)						
Female	-0.37* (0.22)	-0.34 (0.23)	-0.37* (0.22)	-0.62* (0.33)	-0.09 (0.31)	-0.40* (0.22)	-0.38 (0.23)	-0.43** (0.22)	-0.67** (0.32)	
Income Level	Average income	0.5 (0.44)	-0.07 (0.48)	0.08 (0.45)	0.16 (0.65)	-0.37 (0.68)	0.43 (0.44)	-0.22 (0.48)	-0.03 (0.44)	0.1 (0.65)
	Above-average income	0.22 (0.25)	0.03 (0.27)	0.07 (0.25)	0.25 (0.39)	-0.06 (0.35)	0.12 (0.25)	-0.03 (0.27)	0.04 (0.25)	0.11 (0.39)
Education Level	Non-academic above high school education	-0.04 (0.28)	0.92*** (0.32)	0.388 (0.27)	-0.009 (0.41)	0.141 (0.40)	-0.07 (0.27)	0.95*** (0.31)	0.46* (0.25)	-0.08 (0.41)
	Academic education	0.28 (0.37)	0.85** (0.40)	0.59 (0.38)	0.48 (0.51)	0.17 (0.52)	0.267 (0.36)	0.98** (0.39)	0.76** (0.37)	0.4 (0.50)
Immigrant	-0.48 (0.30)	-0.08 (0.30)	0.07 (0.29)	-0.44 (0.47)	0.22 (0.40)	-0.55* (0.30)	-0.22 (0.30)	-0.05 (0.29)	-0.55 (0.47)	
Constant	-2.72** (1.13)	-5.45*** (1.32)	-3.38*** (1.14)	-3.84** (1.75)	-1.83 (1.74)	-1.23** (0.49)	-2.73*** (0.56)	-1.45*** (0.49)	-2.25*** (0.71)	
Other Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Observations	424	424	424	424	424	424	424	424	424	
McFadden Pseudo R ²	0.23	0.29	0.25	0.27	0.16	0.22	0.29	0.24	0.27	
AIC	564.3	515.1	554.4	335.1	353.1	566.2	514.8	559.8	334.4	

Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Notes: Each column represents a different regression of the effect of individual characteristics on awareness of financial campaigns. Columns (1)–(4) report logit estimations of awareness of the financial campaigns and action taken following the campaigns, controlling for age and age squared and without controlling for work status variables. Column (5) reports logit estimations of inquiring about inactive accounts (any inquiries about inactive funds and not specifically inquiries resulting from the financial campaigns). Columns (6)–(9) report logit estimations of awareness of the financial campaigns and action taken when controlling for an additional subjective question about interest in retirement issues. Other controls as presented in main regressions. Data obtained from the main survey sample.

Appendix D3- Regression with funds expectations					
Variables:	Awareness of the Money Mountain campaign	Awareness of the tax exemption campaign	Visited the Money Mountain website	Contact with the intention of closing inactive account	Contact with the intention of closing inactive account
	(1)	(2)	(3)	(4)	(5)
Financial literacy index	0.302** (0.12)	0.403*** (0.131)	0.158 (0.124)	-0.028 (0.182)	-0.287 (0.22)
Confidence in retirement knowledge	0.970** (0.446)	1.472*** (0.49)	1.578*** (0.559)	0.691 (0.495)	1.543*** (0.533)
Expecting to find no inactive accounts	-1.152*** (0.403)	-0.533 (0.418)	-1.418*** (0.416)	-1.917*** (0.609)	
Expecting to find funds between \$285-\$1,500	-0.369 (0.452)	0.565 (0.471)	0.023 (0.475)	0.235 (0.543)	0.539 (0.689)
Expecting to find funds between \$1,500-\$5,700	-0.263 (0.447)	0.136 (0.461)	0.034 (0.474)	-0.391 (0.558)	0.619 (0.61)
Expecting to find funds between \$5,700-\$28,500	-0.612 (0.48)	0.141 (0.503)	0.246 (0.517)	-1.178* (0.693)	-0.143 (0.587)
Expecting to find funds over \$28,500	-0.602 (0.814)	1.217 (0.967)	-0.235 (0.962)	-0.479 (0.923)	-0.605 (0.704)
Did not know what expectations were	-0.685 (0.439)	0.269 (0.454)	-0.577 (0.45)	-1.121* (0.615)	0.62 (0.92)
Constant	-0.679 (0.61)	-2.912*** (0.685)	-1.033 (0.631)	-1.679* (0.876)	-0.033 (1.072)
Controls for other personal attributes	Y	Y	Y	Y	Y
Observations	412	412	412	412	175
McFadden Pseudo R ²	0.27	0.32	0.32	0.35	0.35
AIC	548	503	519	312	229

Notes: Each column represents a different regression of the effect of individuals' expectations to find funds on being aware of financial campaigns or taking actions following the campaigns. The dummy variable dropped in all regressions is expecting to find less than 285\$. Column (1) reports a logit estimation for dummy variables for the size of expectations on awareness of the Money Mountain campaign. Column (2) reports a logit estimation for dummy variables for the size of expectations on awareness of the tax exemption campaign. Column (3) reports a logit estimation for dummy variables for the size of expectations on visiting the Money Mountain website. Column (4) reports a logit estimation for dummy variables for the size of expectations on contacting the retirement fund provider with the intent of closing an inactive account. Column (5) reports a logit estimation for dummy variables for the size of expectations on contacting the retirement fund provider with the intent of closing an inactive account while only using observations of individuals who visited the Money Mountain website and found inactive accounts and when the observations of individuals who did not expect to find any inactive accounts are dropped. Data obtained from the main survey sample.

Appendix D4 - Ordered logit regression			
Variables:		Three Levelled (1)	Seven Levelled (2)
Financial literacy index		0.24*** (0.109)	0.19*** (0.099)
Confidence in retirement knowledge		1.15*** (0.354)	1.22*** (0.348)
Age		0.03*** (0.009)	0.03*** (0.008)
Female		-0.46*** (0.206)	-0.37*** (0.191)
Married		0.360 (0.23)	0.270 (0.217)
Income Level	Average income	0.160 (0.412)	0.10 (0.378)
	Above average income	0.070 (0.236)	00 (0.22)
Education Level	Above high school education	0.49*** (0.255)	0.47*** (0.239)
	Academic education	0.73*** (0.342)	0.7*** (0.318)
Religious Identity	Traditional	-0.090 (0.226)	-0.130 (0.214)
	Religious	-0.130 (0.307)	-0.060 (0.282)
	Ultra-religious	-0.150 (0.715)	-0.380 (0.659)
Working Level	Non-Working	-0.48*** (0.272)	-0.48*** (0.25)
	Retiree	-0.430 (0.493)	-0.430 (0.458)
Immigrant		-0.150 (0.27)	-0.130 (0.254)
Constants		Y	Y
Observations		386	424
McFadden Pseudo R2		0.31	0.48
AIC		932	1234

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Notes: Each column represents a different regression of the effect of individual characteristics on awareness of financial campaigns. Column (1) reports the estimation from a three-level ordered logit model. The levels are: 1- have awareness of both Money Mountain and tax exemption campaigns, but did not access the Money Mountain website or contact the retirement fund provider with the intention of closing inactive account, 2- have awareness of both campaigns and visited the Money Mountain website, but did not contact retirement fund provider, and 3 - have awareness, visited the website, and contacted the retirement fund provider. Column (2) reports the estimation from a seven-leveled ordered logit regression. The levels are 1- have awareness of at least one campaign, either the Money Mountain campaign and/or the tax exemption, but did not access the Money Mountain website or contact the retirement fund provider with the intention of closing inactive account, 2- have no awareness of the campaigns but visited the Money Mountain website and did not contact the retirement fund provider, 3- have awareness of at least one of the mentioned campaigns and also visited the website but did not contact the retirement fund provider, 4- have no awareness of both of the campaigns, did not access the website, but contacted the retirement fund provider with the intention of closing inactive account, 5- have awareness of both of the campaigns, did not access the website, and contacted the retirement fund provider with the intention of closing inactive account, 6 - have no awareness of the campaigns, visited the website, and contacted the retirement fund provider with the intention of closing inactive account, and 7 - have awareness of both of the campaigns, visited the website, and contacted the retirement fund provider with the intention of closing inactive account. Data obtained from the main survey sample.