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### “Financial Less Is More:”

## An Experimental Study of Financial Communication

By

**Abigail Hurwitz, Eyal Lahav, Yevgeny Mugeran**

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P.O. Box 12, Rehovot 76100, Israel

ת.ד. 12, רחובות 76100

**“Financial Less Is More:”  
An Experimental Study of Financial Communication**

**Abigail Hurwitz<sup>a</sup>, Eyal Lahav<sup>b</sup>, Yevgeny Mugerma<sup>c</sup>**

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<sup>a</sup> *Corresponding author.* Environmental Economics and Management, Robert H. Smith Faculty of Agriculture, Food and Environment, The Hebrew University of Jerusalem Israel; [Abigail.hurwitz@mail.huji.ac.il](mailto:Abigail.hurwitz@mail.huji.ac.il)

<sup>b</sup> Department of Management and Economics, the Open University of Israel, 1 University Road Raanana, Israel; [eyalla@openu.ac.il](mailto:eyalla@openu.ac.il)

<sup>c</sup> Graduate School of Business Administration, Bar-Ilan University, Ramat-Gan 52100, Israel; [mugi@huji.ac.il](mailto:mugi@huji.ac.il)

**ABSTRACT**

Past research has demonstrated that many individuals are not well equipped to make financial decisions and hence depend greatly on the flow and quality of financial information. Various governments are implementing reforms aimed at improving the quality of pension financial communication. Certain countries are requiring a move to short-form

pension reporting, and some are requiring digital reporting instead of (or in some cases, in addition to) paper reporting. In a series of experiments, we show that the ability to locate information in financial reports is sensitive to the length of the report and to the communication form.

## 1. Introduction

Pension plan participants are expected to understand financial information and make decisions that will greatly affect their future life and well-being. Yet past research has demonstrated that they often do so without sufficient financial knowledge (Lusardi & Mitchell, 2011a). With the aim of increasing pension engagement, previous studies have focused on factors related to portraying and framing financial information. In particular, essential information can be made more accessible to individuals by changing reporting formats and communication schemes, as a complement to financial education programs, which can be costly (Kaiser, Lusardi, Menkhoff, & Urban, 2020). Further, as noted in a European Commission green paper on pension systems, “the trend towards DC [defined contribution] schemes underlines the need for transparent and clear communication” (Kohler & Petrovic, 2012, p. 13). In an effort to achieve the goal of better pension communication and improved efficiency of the reporting, regulators have begun exploring different approaches; two among them appear to be gaining momentum: (1) simplification of communication by reducing length (which we call “financial less is more<sup>ii</sup>”), and (2) moving from paper to digital communication. In this article we examine the effectiveness of both in an experimental setting (for a review of the advantages of these settings, see Hurwitz, Sade, & Winter, 2020).

Regarding the first approach, certain governments, such as Australia and Israel, are requiring short-form reports on financial and savings schemes. Short, simplified, and standardized forms are expected to reduce information overload, which is associated with many negative effects in decision making (Chan, 2001; Kelton, Pennington, & Tuttle, 2010).

Previous literature discusses ways to improve efficiency of information presented in various behavior-related domains.<sup>ii</sup> Some studies investigate effective presentation of accounting

and managerial information using tables, graphs, and colors to promote better managerial decisions (Benbasat & Dexter, 1985; Chan, 2001; Kelton et al., 2010; Vessey, 1994). Others explore effective communication of information through nutrition labeling. Standardized information presented on food labels makes relevant information easier to use, resulting in better consumer food choices (Ippolito & Mathios, 1991, 1994; Muller, 1985). The negative effects of information overload are also studied in relation to acquiring new academic knowledge (Mayer, Bove, Bryman, Mars, & Tapangco, 1996; Reder & Anderson, 1980); learning computer skills (Carroll, Smith-Kerker, Ford, & Mazur-Rimetz, 1987; Ginns, Hollender, & Reimann, 2006; Lazonder & Van der Meij, 1993); consent forms (Mann, 1994; White et al., 1984); and understanding drug package inserts (Epstein & Lasagna, 1969). Also in the health domain, public reporting of health care provider performance seeks to provide transparency as well as assist individuals in making informed health care choices.

Thus, related research mostly focuses on more effective presentation of comparative data related to costs and service quality. Results indicate that consumers better understand and consequently make more informed choices when the information displayed is less complex (see Kurtzman & Greene, 2016, for a review). Simplification can be achieved in many ways, such as by using nontechnical, plain language (Hibbard, Greene, & Daniel, 2010) and evaluative elements (Hibbard et al., 2010; Peters et al., 2009). Past findings point out that showing less information or fewer summaries and using short forms or concise manuals result in better comprehension (Carroll et al., 1987; Lazonder & van der Meij, 1993; Mayer et al., 1996; Reder & Anderson, 1980). In a financial domain, Agnew and Szykman (2005), focusing on defined contribution pension plans, cite several sources of information overload that can impede decision making: descriptions that require a large amount of time to read, numerous choices, similarity of options, and the need for preexisting financial knowledge. In a later study (Agnew & Szykman,

2011) the authors find benefits in simplification of data and reduction of overload, especially for those with low literacy.

Regarding the second approach, moving from paper to digital communication, various governments worldwide, such as Germany, Austria, the Netherlands, the United Kingdom, Italy, Belgium, Hungary, and Israel, are moving in this direction (Kritzer & Smith, 2016; Stevens & Van Assche, 2013), with a great number of financial institutions following suit. However, prior research demonstrates that such a move might affect reading method (e.g., how one navigates through text) and comprehension. While some recent studies (e.g., Johnson, 2013; Kang, Wang, & Lin, 2009; Margolin, Driscoll, Toland, & Kegler, 2013; Taylor, 2011) find no significant difference in comprehension when reading from paper versus a computer screen, others report higher comprehension scores<sup>iii</sup> among paper readers (Mangen, Walgermo, & Brønnick, 2013; Mayes, Sims, & Koonce, 2001).

Differences in comprehension and reading speed between paper and digital environments are frequently linked to and explained by differences in metacognitive processes (Ackerman & Lauterman, 2012; Dyson & Haselgrove; 2001; Jeong, 2010; Mayes et al., 2001; Wästlund, Reinikka, Norlander, & Archer, 2005; Zumbach & Mohraz, 2008). Prior studies emphasize the performance superiority of paper, which is especially evident in time-pressured contexts (Ackerman & Lauterman, 2012; Sidi, Ophir, & Ackerman, 2016) or when tasks are difficult (Mayes et al., 2001).

Digital environments also offer different navigation methods from paper. Mangen et al. (2013) and Herson, Hopper, Leach, Saunders, and Zhang (2007) show that readers navigate more easily when they read from paper, hold the entire text, and have the ability to turn pages. Other scholars claim that scrolling and paging increase reading time and decrease the ability to

remember the information (see Ziming, 2005, for a review; Van Oostendorp & Van Nimwegen, 1998).

Far fewer studies examine the effect of digital presentation in financial domains. This article aims to fill this gap in the literature by investigating two approaches to improving pension communication: exploring the length of the text (short vs. long; financial less is more), and assessing the communication medium (paper vs. digital). We did so using real anonymized financial reports. These reports comply with the instructions of a reform in pension communication requirements instituted by the Israeli Ministry of Finance in 2014 that affected both the length of reports and the medium of communication. That change inspired us to examine the effect of the new requirements on locating (and understanding) data.

In particular, we conducted three studies where participants (from both a student sample and also a representative sample of the Israeli working-age population) were assigned to one of three conditions in which they received a short, long, or combined (including both the long and the short reports together) financial report.<sup>iv</sup> Each participant was asked to answer nine questions, with varying levels of difficulty,<sup>v</sup> about the information presented in an attached report. In Study 1, 361 students received a *paper* report. The questions and the report were delivered on paper in closed envelopes. Results regarding participant' answers to the follow-up questions are consistent with the literature on information overload and simplification (financial less is more): Participants did significantly better on the difficult questions when they received a short version of the report (*Mean* = 1.533) versus the long version (*Mean* = 1.38) or the combined version (*Mean* = 1.409). In Study 2, 116 students received a *digital* version<sup>vi</sup> of the (same) report and questions. Here, we find the opposite result: Participants *did not* answer more of the difficult questions correctly in the short report condition.

To test the robustness of these results in a more age-representative sample, we also conducted a third digital study with a representative sample of the Israeli population (20–64 years old;  $N = 749$ ). Consistent with the results of Study 2 (student digital experiment), participants in Study 3 answered significantly fewer of the difficult questions correctly when they received the short version ( $Mean = 1.810$ ) than the long ( $Mean = 1.903$ ) or combined ( $Mean = 1.924$ ) version. Together, these results provide new insights on the move to computerized schemes of financial reporting. Thus we suggest that such a move may result in changes in the recipient's ability to read, locate, and orient to financial information.

In what follows, we first describe the 2014 Israeli financial reports reform, followed by our research hypothesis. Next, we present the design, procedures, and results of our experiments. Finally, we present possible explanations and conclude.

## **2. Israel's Financial Reports Reform of 2014**

In 2014, the Israeli Ministry of Finance published new guidelines for financial institutions, outlining reforms in the presentation of annual and quarterly pension reports. The guidelines included instructions to all financial institutions for how to structure a new shortened financial report. The aim of the new form, as described in the Ministry of Finance (2014) report, was to create

*a simple and brief summary which presents the most important data in a simple, clear and concise manner in order to make the annual report more accessible and encourage insured to read it through. The report will allow each saver to understand the status of his long-term savings and will become an effective tool for policy monitoring and making better and more informed decisions.* (pp. 9–10)

The longer form (used in the past) is still available to savers and appears on the financial institutions' websites, next to the new shortened form. The new short form provides savers with relevant data arranged in five tables, in contrast to nine tables in the previous (longer) form.



Shortening the form was part of the simplification process, but this process also included other changes in the design. Some information now appears in a callout instead of a table. For instance, to emphasize their importance, average fees are presented next to the information regarding management fees charged. In addition, headings are shortened or rephrased using simpler language. Finally, some other data such as the monthly insurance premium, which appeared as both a percentage of salary and a sum of money in the long form, is now reported only as a monetary value in the short form.

Since 2017, financial institutions have been allowed to offer their clients the option to receive the annual report by e-mail only (instead of through the postal system). Clients who consent receive the short form by e-mail with a link to a webpage in which both the short and the long reports can be found. Short and long quarterly reports appear on the website only, and clients receive an e-mail with a link to the information. Since this move from paper to computerized communication and the introduction of short reports motivated this research, the real annual reports were used for the study.

### **3. Hypothesis**

If consumers are well-informed rational economic decision makers, the report length should have no impact on the outcome, as long as all relevant data appear in both forms. In particular, receiving a shorter report would not be expected to affect participants' success rate in answering the questions, regardless of the reporting medium (paper or digital). Yet, the previous studies presented above, mostly in nonfinancial domains, suggest that information overload is expected to negatively affect understanding of information, acquisition of new knowledge, and even decision making. Moreover, low levels of financial literacy found by Lusardi and Mitchell (2011b) lend support to regulators' efforts to simplify financial reports.

The shortened pension report presented in the current experiment corresponds to the structure of the 2014 financial report reform. In contrast to the longer report, data are presented in a simpler way, headings are shortened or rephrased using simpler language, and some items, such as the monthly insurance premium (which had appeared as both a percentage of salary and a sum of money in the long form), are reported only as a monetary value. Such changes to length and complexity can result in better comprehension (Carroll et al., 1987; Lazonder & van der Meij, 1993; Mayer et al., 1996; Reder & Anderson, 1980) and better success (Agnew & Szykman, 2005; Besedeš, Deck, Sarangi, & Shor, 2015; Hibbard et al., 2010; Hibbard, Greene, Sofaer, Firminger & Hirsh, 2012; Mann, 1994; Peters et al., 2009; White et al., 1984). Therefore, our research hypothesis is as follows:

**Financial less is more:** *Participants who receive a shorter report will have greater success in answering the questions correctly, regardless of the reporting medium (paper or digital), compared to participants who receive a longer or a combined (short and long) version of the report.*

Previous findings suggest there are differences in reading methods (Van Oostendorp & Van Nimwegen, 1998; Ziming, 2005) and comprehension (Mangen et al., 2013; Mayes et al., 2001) between paper and digital environments. Although reading on a screen is associated with higher eye fatigue than reading on paper (Jeong, 2010), the findings are ambiguous regarding the superiority of one or the other environment (Dillon, 1992; Dyson & Haselgrove, 2001; Margolin et al., 2013; Zumbach & Mohraz, 2008). Dyson and Haselgrove (2001) suggest that digital presentation may be more suitable when the information is unstructured, as that allows reading manipulations (e.g., nonlinear navigation). Financial statements include short texts, tables, and unstructured information; here, the nonlinear navigation available in the digital environment may decrease investors' information overload and effort, potentially improving performance. Hence,

we further test whether participants in the digital condition perform better when answering the questions compared to those in the paper condition.

#### **4. Experimental Procedures**

To identify the differences in knowledge accumulation with paper versus digital media and with different information formats (a short document, a longer detailed document, or a combination of a short and a long document), we used a between-subjects design in which individuals were exposed to only one of the three formats (short, long, combined) and one medium (paper or digital). Participants were randomly assigned to the format conditions in each of the studies. Causal estimates were obtained by comparing the behavior of participants in one experimental condition with the behavior of those in the others.

Each of our studies consisted of three parts (see Appendix 1). First, we collected demographic information and assessed participants' financial literacy as well as information on time and risk preferences (total of 30 questions). Respondents were incentivized by receiving a sum of 0.75 New Israeli Shekels (NIS)<sup>vii</sup> per question, for a maximum of NIS 20 for answering all questions.

Next, each participant received a copy of an actual annual report obtained from a pension provider, consisting of information about a hypothetical person's annual deposits and total accumulations in the exact form required by the Israeli Ministry of Finance as of 2015. Participants were asked to assume it was their own report and that they had worked for the entire year. Each person received either the short form, the long form, or both (a combined form).

After receiving the information, respondents were asked to answer nine questions pertaining to the information in the report they received:

1. How much money has been accumulated so far (at the end of the reporting period)?

2. What is the rate of management fees on current deposits?
3. What is the rate of management fees on the total accrual?
4. How much money was paid in the past year for management fees?
5. What is the expected monthly retirement benefit?
6. Did your employer pay last year's pension provision?
7. If the management fees are the same as the average management fees reported by the pension provider, do you think that the monthly retirement benefit will be higher than currently expects?<sup>viii</sup>
8. Would you prefer to waive your life insurance coverage?
9. What is the rate of return used to calculate the monthly retirement benefit?

Questions 7–9 were those we deemed “difficult.”<sup>ix</sup> There was only one correct answer for each question. Participants were informed that a correct answer on any of these questions earned a sum of NIS 2. A wrong answer resulted in a reduction of NIS 1 from the sum that was accumulated in the first part of the experiment.

Finally, the survey asked a series of additional questions aimed at identifying how difficult it was for participants to answer the questions in the second part (described in Appendix 1). Parts 1–3 were identical for all participants in all three studies; thus the studies differed in terms of medium used (paper vs. digital) and whether students or participants from a representative sample were queried.

## **5. Study 1**

*Participants:* Study 1 consisted of a student sample.<sup>x</sup> Here participants received a paper version of both the reports and the questions; 361 students participated in this study ( $n = 122$  in Condition 1, short form;  $n = 129$  in Condition 2, long form;  $n = 110$  in Condition 3, combined

form;  $Mean_{age} = 24.7$  years with no statistically significant difference across conditions. Of the respondent group, 52.4% were male, 47.6% female; fewer males were in Condition 2). Appendix 2, Table 1 shows the means and standard errors for the dependent variables—number of correct answers and number of correct answers on the three difficult questions—and the control variables—male indicator (Male); age (Age); smoking habit indicators (Smoker and Past smoker)<sup>xi</sup>; perceived probability of reaching age 85 (Age 85); risk premium;<sup>xii</sup> time preference score (Present bias);<sup>xiii</sup> checking one’s bank account more than once a week indicator (Tracking); reading periodic pension reports outside of the lab (Read reports);<sup>xiv</sup> and self-reported fatigue status (Tired).

A paired  $t$  test of the different characteristics indicated that there were no statistically significant differences between the groups across conditions. Participants in this experiment (paper reports) answered the questions better in the short report condition. The difference was statistically significant when comparing the results for only the three difficult questions.

*Results:* We now examine the effect of the length of financial reports on the performance measures of interest. We estimate the following multivariate equation with ordered probit<sup>xv</sup> and also ordinary least squares (OLS):

$$Correct\ answers_i = \alpha + \beta T'_i + O'_i \gamma + \tau_g + \varphi_v + \varepsilon_{igv} \quad (1)$$

where  $Correct\ answers_i$  is the number of questions answered correctly (either out of all questions or out of the three difficult questions) by individual  $i$ ;  $T'_i$  is the relevant treatment (short, long, or combined form) for individual  $i$ ;  $O'_i$  is a vector of individual  $i$ ’s characteristics;  $\tau_g$  is a geographic region fixed effect (for a sample of the general population only);  $\varphi_v$  is a voting

fixed effect (political affiliation, for a sample of the general population only); and  $\varepsilon_{igv}$  is an error term. Our main interest is in the effect of  $T_i$  on *Correct answers* <sub>$i$</sub> .<sup>xvi</sup>

For all specifications, results were qualitatively similar using either an OLS model or an ordered probit model. In particular, our primary coefficients of interest capturing the treatment effects had the same sign and similar levels of statistical significance across both estimation techniques. The precise magnitudes of the estimated marginal effects from ordered probit estimations were, however, sensitive to the point in the distribution at which marginal effects are evaluated. An additional issue with ordered probit models is that certain dummy variables perfectly predict outcomes; hence, for ease of interpretation we report OLS estimates. Table 1 shows the different parameters affecting the number of correct answers, and in most specifications, we controlled for individual characteristics including gender, age, self-assessed life expectancy (in the tables: Living past age 85),<sup>xvii</sup> being tired, and self-reporting about reading the periodic pension reports they receive (reading reports).

#### [TABLE 1]

A few of the demographic factors and attitudes were related to participant scores, including risk premium, smoking habits (present and past), and present bias. Older people were more likely to answer the questions correctly, and high self-assessed life expectancy increased participants' scores on the difficult questions, suggesting an interest in financial outcomes among people expecting to live longer. As expected, reading reports also enhanced respondents' knowledge. Results in Table 1 (Columns 1 and 2) indicate that the length of the report decreased participants' ability to answer the three difficult questions. In line with our hypothesis (financial less is more), participants scored higher in the short-form condition (Condition 1) versus both the long-form (Condition 2) and combined-form (Condition 3) conditions. Furthermore, we aimed to

test whether tired participants were more affected by the length of the report; results show that tired participants answered more questions correctly when they obtained the information from a short-form report (for the tired subsample, the difference was also significant for the combined version). This might mean that the negative emotional effect of report length was stronger for more tired respondents, resulting in higher cognitive load.

Table 1 (Columns 3 and 4) shows that when we look at the entire set of questions, rather than just the difficult ones, signs and significance levels are consistent: Participant scores for all questions were negatively affected by receiving the long-form information. This main result was consistent across specifications and statistical methods, such that longer reports did not improve and even reduced participants' ability to locate information and answer our questions. When analyzing participants' self-reports on difficult-to-answer questions regarding the financial reports they received, we found no significant differences between treatment groups.

## 6. Study 2

*Participants:* Study 2 assessed a student sample who received a digital version of both the report and the questions. This sample consisted of 116 students ( $n = 46$  in Condition 1, short form;  $n = 32$  in Condition 2, long form;  $n = 38$  in Condition 3, combined form;  $Mean_{age} = 28.7$  years with no statistically significant difference across conditions (although these participants were somewhat older than participants in the paper experiment); 46.6% were male and 53.4% female, with no significant difference between the groups. Appendix 2, Table 2 shows means and standard errors for the dependent and control variables (similar to Appendix 2, Table 1) and a comparison of the time it took to answer the questionnaire (in seconds). A paired  $t$  test of the different characteristics suggests that there was no statistically significant difference between the groups in the various conditions for most of the parameters, but participants in the combined

version (Condition 3) scored lower in the present bias indicator (required rate of return to postpone a payment for 1 year was lower) and the proportion of smokers among them was lower than among the other participants. There was no statistically significant difference in response time. Participants in this experiment (student digital experiment) answered more questions correctly in the long and combined report conditions, but the difference was not statistically significant.

*Results:* We now evaluate whether there was any difference in participants' performance when we provided reports and information in digital form rather than on paper. For all of our specifications, results were qualitatively similar when using either a linear model (estimated by OLS) or an ordered probit model. Table 2 shows the different parameters affecting the number of correct answers for the difficult questions (Columns 1 and 2) and for all questions (Columns 3 and 4). In most regressions, we again controlled for the following individual characteristics: gender, age, self-assessed life expectancy, being tired, and self-reporting about reading reports. Unreported controls included risk premium, smoking habits (present and past), present bias, and tracking (monitoring one's bank account).

#### **[TABLE 2]**

Most of the demographic characteristics were not significantly related to participant scores. Age was positively associated with the number of correct answers, as expected, as was reading reports (consistent with our paper experiment). Furthermore, results suggest that in the digital experiment, participants answered more questions correctly in the long-form condition (coefficients were positive for all specifications but not statistically significant) compared to the short-form condition. This is not in line with our research hypothesis and it suggests that in the digital environment, participants behaved differently, and that in digital financial communication more may actually be more. When we dug deeper into this result, we discover that the time taken



by our participants to answer the questions was roughly the *same* for all treatments. This, in turn, implies that in digital environments people are less likely to read and more likely to scroll, making the convenience of the presented information more important than its length. For example, in the long form, when scrolling, participants would probably have seen on their screen only one (bigger and more detailed) table of information at any one point in time. This could have made it easier to locate the relevant table, stop scrolling, and look for the relevant piece of information for answering a specific question.

### 7. Study 3

*Participants:* In Study 3, a representative sample of working-age participants received a digital version of both the report and the questions. This study consisted of 749 participants ( $n = 243$  in Condition 1, short form;  $n = 247$  in Condition 2, long form;  $n = 259$  in Condition 3, combined form;  $Mean_{age} = 40.8$  years with no statistically significant difference across conditions; 48.5% were male and 51.5% female, with no significant difference between the groups. Appendix 2, Table 3 shows the means and standard errors for the dependent and the control variables (similar to Appendix 2, Table 2). A paired  $t$  test of the different characteristics suggests that there was no statistically significant difference between the groups in the various conditions for most of the parameters, but it took participants in Condition 2 (long form) significantly more time to answer the questions. Participants in this experiment were significantly worse in answering the questions in Condition 1 (short form) compared to the other conditions.

*Results:* Results were qualitatively similar when using either a linear model (estimated by OLS) or an ordered probit model. Table 3 displays the factors associated with the number of correct answers for the difficult questions, and Table 4 shows this for all questions. In each table

we present OLS coefficients. Columns 1 and 2 present results for the entire sample; Columns 3 and 4 are differentiated by the respondents' degree of fatigue. Columns 2, 3, and 4 of each table include fixed effects for voting (political affiliation) and geographic region. In most specifications, we again controlled for the following individual characteristics: gender, age, self-assessed life expectancy, being tired, and self-reporting about reading reports. Unreported controls include risk premium, smoking habits (present and past), present bias, and tracking (monitoring one's bank account).

**[TABLE 3]**

**[TABLE 4]**

Men provided fewer correct answers (with respect to the entire set of questions and the difficult questions alone). Consistent with the student studies (paper and digital), reading pension reports and higher self-assessed life expectancy were positively correlated with increased ability to answer the questions correctly, as was education (years of schooling). In most specifications, the effects of the long and the combined report were opposite to the results in the paper experiment, and not in line with our research hypothesis. Here, again, there was no significant difference in time taken to answer the questions across all the various treatments, suggesting that people scrolled to locate the information. Interestingly for the most part, we did not find a significance correlation between time taken to complete the survey and the ability to correctly answer questions. Yet, people who answered the survey super quickly (47 participants who devoted less than 11.5 minutes to complete the task) answered significantly fewer questions correctly. Importantly, when we exclude these "super-quicks" from our sample, our results suggesting the inferiority of the short version were even more significant (in all specifications). Digital environment does appear to better suit longer presentations of financial data, apparently causing less information overload (scrolling might help people locate the information).

Further, age seems to be an important determinant of digital literacy, so we split our sample into two sub-samples above and below the median age (40 years). The results of our main specification (Column 2 of Table 4) were qualitatively the same.<sup>xviii</sup>

Similar to the results of Study 2 (students in a digital environment), participants given the longer financial report answered more questions correctly than those given the short version, but here the effect was significant (receiving a combined report also resulted in answering more questions correctly compared with receiving only the short report). These results hold in all but one specification: participants who declared they were tired (more than the sample median), where the results were not significant. Remarkably, when we excluded the “super-quicks” from this specification, the results were, again, statistically significant.

The participants in the student paper experiment (Study 1) performed worse than participants in the two digital experiments (Studies 2 and 3), and the difference was statistically significant;  $t = 9.5$  for all questions and  $t = 6.4$  for the difficult questions. This means that moving from paper to digital in pension reports may increase a reader’s ability to *locate information* and answer questions regarding the information communicated via the report. Interestingly, the comparison of students and the general population suggests some structural differences between them, perhaps due to age differences. Yet participants from the general population were more present biased (statistically significant;  $t = 2.04$ ) and risk averse (statistically significant;  $t = 5.54$ ).<sup>xix</sup>

## **8. Conclusions**

Our results contribute to the literature regarding effective information presentation. Specifically, we illustrate differences in how consumers of financial information learn in a computerized versus a paper environment. We demonstrate experimentally that people’s ability

to locate and understand financial information is related to the length of the document as well as the format (paper vs. digital) used to communicate with participants. In particular, participants provided with short paper documents answered 10% more of the difficult questions correctly, while participants receiving digital information did significantly better when given both longer and combined reports. Moreover, in a digital environment, participants spent less time reading both the short and the combined reports, compared to those receiving the long report.

These results are relevant to current policy discussions. In many countries, financial information is delivered via the postal system, where our findings support the use of short reports to communicate information (financial less is more). But when regulators require digital delivery of financial statements and pension information, we show that longer documents do a better job of providing information to participants.

In the future, it will be of interest to examine whether our results hold in other domains and for other types of information. We also would like to ascertain which features of paper versus digital communication drive our results: For instance, font size, colors, or other aspects of the presentation may be influential. In addition, it could be interesting to evaluate whether information presented digitally, and time spent reading it shape consumers' ability to process financial data.

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**Table 1.** Ordinary least squares regression analysis of the student sample’s ability to answer the questions in the paper condition (Study 1), for the full sample and the subsample of more tired participants: Financial less is more

Variable	Difficult questions		All questions	
	Full sample	Tired subsample <sup>a</sup>	Full sample	Tired subsample <sup>a</sup>
	M= 1.457 (Sd = 0.77)	M = 1.408 (Sd = 0.80)	M = 5.446 (Sd = 1.635)	M = 5.315 (Sd = 1.75)
Long version	-0.19** (0.09)	-0.21 (0.12)	-0.21 (0.21)	-0.38 (0.27)
Combined version	-0.16 (0.09)	-0.28** (0.13)	-0.36 (0.21)	-0.79*** (0.28)
Male	-0.10 (0.08)	0.01 (0.11)	-0.20 (0.18)	-0.30 (0.24)
Tired	-0.022 (0.016)	-0.049 (0.035)	-0.07 (0.03)	-0.13 (0.08)
Read reports	0.41*** (0.09)	0.44*** (0.11)	0.82*** (0.19)	0.91*** (0.25)
Live past age 85	0.40** (0.19)	0.38 (0.24)	0.91** (0.41)	0.92 (0.52)
Age	0.026 (0.013)	0.036** (0.017)	0.069** (0.028)	0.095** (0.037)
Number of observations	350	223	343	219
$R^2$	0.11	0.15	0.12	0.16

*Note.* The table reports ordinary least squares regression results and standard errors in parentheses. The dependent variable is correct answers to the difficult questions (Columns 1 & 2), and correct answers to all the questions (Columns 3 & 4). Main explanatory variables are the long and the combined report versions (the base treatment is the short version). Unreported controls include risk premium, smoking habits (present and past), present bias, and tracking bank account. Combined report consisted of the short and long reports.

<sup>a</sup>Tired = more tired than the median.

\*\* and \*\*\* denote significance at the 5%, and 1% level, respectively.

**Table 2.** Ordinary least squares regression analysis of the student sample’s ability to answer the questions in the digital condition (Study 2): Financial less is more?

Variable	Difficult questions		All questions	
	Full sample	Tired subsample <sup>a</sup>	Full sample	Tired subsample <sup>a</sup>
	M = 1.98 (Sd = .84)	M = 2 (Sd = 0.7977)	M = 7.07 (Sd = 1.50)	M = 7.04 (Sd = 1.46)
Long version	0.077 (0.187)	0.483 (0.331)	0.31 (0.45)	0.02 (0.25)
Combined version	-0.099 (0.184)	-0.218 (0.326)	-0.29 (0.44)	-0.06 (0.24)
Male	-0.05 (0.16)	-0.15 (0.29)	0.06 (0.42)	0.09 (0.23)
Tired	0.022 (0.026)	0.024 (0.047)	0.175 (0.127)	0.091 (0.071)
Read reports	0.33** (0.16)	0.90*** (0.29)	0.35 (0.39)	0.13 (0.22)
Live past age 85	0.30 (0.43)	0.28 (0.76)	0.16 (1.02)	0.24 (0.57)
Age	0.033*** (0.012)	0.038* (0.021)	0.041 (0.029)	0.034** (0.016)
Number of observations	116	67	116	67
R <sup>2</sup>	0.22	0.22	0.23	0.25

*Note.* The table reports ordinary least squares regression results and standard errors in parentheses. The dependent variable is correct answers to the difficult questions (Columns 1 & 2), and correct answers to all the questions (Columns 3 & 4). Main explanatory variables are the long and the combined report versions (the base treatment is the short version). Unreported controls include risk premium, smoking habits (present and past), present bias, and tracking bank account. Combined report consisted of the short and long reports.

<sup>a</sup>Tired = more tired than the median.

\*\* and \*\*\* denote significance at the 5%, and 1% level, respectively.

**Table 3.** Ordinary least squares regression analysis of the representative sample’s ability to answer the three difficult questions in the digital condition (Study 3): Financial more is more

Variable	(1)	(2)	(3)	(4)
	Full sample	Full sample	More tired	Less tired
	M = 1.89	M = 1.98	M = 1.87	M = 1.90
	(Sd = 0.84)	(Sd = 0.84)	(Sd = 0.87)	(Sd = 0.82)
Long version	0.10 (0.07)	0.09 (0.07)	0.07 (0.12)	0.08 (0.10)
Combined version	0.12 (0.07)	0.10 (0.07)	-0.05 (0.11)	0.23** (0.10)
Male	-0.08 (0.06)	-0.12 (0.06)	-0.20** (0.10)	0.013 (0.086)
Tired	-0.005 (0.011)	-0.005 (0.011)	-0.05 (0.04)	-0.006 (0.024)
Read reports	0.19*** (0.06)	0.19*** (0.06)	0.17 (0.10)	0.23*** (0.08)
Live past age 85	0.27 (0.14)	0.18 (0.14)	0.22 (0.22)	0.21 (0.19)
Age	0.001 (0.003)	0.003 (0.003)	0.006 (0.005)	-0.00033 (0.00375)
Years of schooling		0.061*** (0.019)	0.085*** (0.029)	0.031(0.026)
Voting fixed effect	NO	YES	YES	YES
Geographical region fixed effect	NO	YES	YES	YES
Number of observations	749	749	344	405
$R^2$ /Pseudo $R^2$	0.04	0.11	0.16	0.15

*Note.* The table reports ordinary least squares regression results and standard errors in parentheses. The dependent variable is correct answers to the difficult questions. Main explanatory variables are the long and the combined

report versions (the base treatment is the short version). Unreported controls include risk premium, smoking habits (present and past), present bias, and tracking bank account. Columns 3 and 4 report estimations of the subsamples of participants who were more or less tired than the median. Combined report consisted of the short and long reports.

\*\* and \*\*\* denote significance at the 5%, and 1% level, respectively.

**Table 4.** Ordinary least squares regression analysis of the representative sample's ability to answer all the questions in the digital condition (Study 3): Financial more is more

Variable	(1)	(2)	(3)	(4)
	Full sample	Full sample	More tired	Less tired
	M = 6.40	M = 6.40	M = 6.24	M = 6.54
	(Sd = 1.97)	(Sd = 1.97)	(Sd = 2.06)	(Sd = 1.88)
Long version	0.60*** (0.17)	0.61*** (0.17)	0.49 (0.27)	0.61*** (0.23)
Combined version	0.39** (0.17)	0.38** (0.17)	0.14 (0.25)	0.55** (0.23)
Male	-0.47*** (0.15)	-0.55*** (0.14)	-0.75*** (0.22)	-0.27 (0.19)
Tired	-0.05** (0.03)	-0.05** (0.03)	-0.16 (0.09)	-0.08 (0.05)
Read reports	0.67*** (0.15)	0.62*** (0.15)	0.61*** (0.23)	0.64*** (0.20)
Live past age 85	0.29 (0.32)	0.22 (0.32)	0.55 (0.50)	0.02 (0.42)
Age	-0.017*** (0.006)	-0.019*** (0.006)	-0.014 (0.010)	-0.019** (0.008)
Years of schooling		0.19*** (0.04)	0.25*** (0.07)	0.13** (0.06)
Voting fixed effect	NO	YES	YES	YES
Geographical region fixed effect	NO	YES	YES	YES
Number of observations	749	749	344	405
$R^2$ /Pseudo $R^2$	0.09	0.17	0.22	0.16



*Note.* The table reports ordinary least squares regression results and standard errors in parentheses. The dependent variable is correct answers to all the questions. Main explanatory variables are the long and the combined report versions (the base treatment is the short version). Unreported controls include risk premium, smoking habits (present and past), present bias, and tracking bank account. Columns 3 and 4 report estimations of the subsamples of participants who were more or less tired than the median. Combined report consisted of the short and long reports.

\*\* and \*\*\* denote significance at the 5%, and 1% level, respectively.

## **Appendix A - Guidelines for the participants**

Hello,

The questionnaire below is part of a behavioral economics study conducted by a team of researchers, XXX, YYY and ZZZ of the TTT.

The data collected from this questionnaire are for research only. Filling it out and submitting it means you are agreeing to participate in the research. You may terminate your participation at any time without any negative consequences for you. If you are interested, we will be happy to share with you the results of the study after its conclusion. For further information about this study, please contact XXX, YYY and ZZZ.

The questions deal with your personal position, and there are no correct or incorrect answers: please choose the answer that best suits you. We would appreciate it if you answered all the questions, but you are free to skip questions that cause you any discomfort.

For your participation in the research and for correct answers to questions, you are expected to receive a return. Particularly, you will receive a reward according to the number of questions answered in the first part, and according to the correct answers in the second part. If you quit while completing the questionnaire, you will receive partial compensation for your responses.

The questionnaire is written in a masculine form for convenience only but is intended for both genders.

Thank you very much for your cooperation!

Contact Information:

XXX, YYY and ZZZ

Here are 30 questions (Part A).

For each question (or two) below you will be paid 0.75 NIS; up to 20 NIS for 30 questions.

Part A—General Questions

1. On a scale of 0 to 10, where 0 represents "not at all" and 10 represents "very"—  
How tired are you at the moment? Answer: \_\_\_\_\_
2. Gender: Male / Female
3. Country of birth: \_\_\_\_\_ Year of immigration: \_\_\_\_\_
4. Age: \_\_\_\_\_
5. Marital status: Single / Married / Divorced / Separated / Widowed  
Number of children: \_\_\_\_\_
6. Place of residence:  
1. Personally owned apartment 2. With your parents 3. Dorms 4. Rented
7. Religious identification:  
1. Very religious 2. Religious 3. Traditional 4. Secular 5. Unaffiliated
8. Bachelor's degree:  
Degree in: 1. Science / Engineering 2. Humanities 3. Economics 4. Business  
Administration
9. What level of mathematics did you complete in your high school matriculation:  
1. 3 units 2. 4 units 3. 5 units 4. I did not complete math
10. Grade point average to date in the current degree studies: \_\_\_\_\_
11. Do you work?  
1. Not working 2. Working part-time 3. Working full-time
12. Circle the total number of years of work experience (including full-time or part-time):  
1. Less than 2 years 2. Two years to less than 4 years 3. Four years to less than 6 years 4.  
Six years and over
13. The average monthly income as an employee is approximately NIS 9,500 (gross), and the average monthly income per household (family) is approximately NIS 15,000 (gross). Is your income as an individual or the income of your family (answer according to your relevant family status) as follows:

1. Much below average 2. Below average 3. About average 4. Above average 5. Far above average

14. a. Do you smoke? 1. Yes 2. No  
b. Have you smoked in the past? 1. Yes 2. No
15. Do you have:  
Life insurance? 1. Yes 2. No 3. I do not know  
Pension plan? 1. Yes 2. No 3. I do not know
16. Do you read the periodic reports you receive from the pension/insurance company?  
1. Yes 2. No. 3. I have no pension savings
17. How long do you invest in reading said periodic reports?  
1. \_\_\_\_\_ minutes 2. I have no pension savings
18. How well do you think you understand the reports you read?  
1. Very well 2. Pretty well 3. Not so well 4. Not at all 5. I have no pension savings
19. Do you know the amount of pension you will receive when you retire?  
1. Yes 2. No 3. I have no pension savings
20. Do you know what percentage you pay the pension fund for management fees?  
1. Yes 2. No 3. I have no pension savings
21. How often do you track your bank account transactions?  
1. Every day 2. Once a week 3. Once a month 4. Once every few months 5. Not at all
22. Have you invested your money in mutual funds or ETFs in the past?  
1. Yes 2. No
23. Do you have an investment portfolio?  
1. Yes 2. No  
If so, how often do you track your portfolio?  
1. Every day 2. Once a week 3. Once a month 4. Once every few months 5. Not following 6. Not relevant
24. How often do you find a negative balance (minus) in your bank account?  
1. All the time 2. Often 3. Rarely 4. Not at all
- 25–26. On a scale of 0 to 10, where 0 represents "no chance" and 10 represents "complete certainty":
25. What are the chances of you reaching the age of 85? Answer: \_\_\_\_\_
26. What are the chances of you reaching the age of 95? Answer: \_\_\_\_\_

27. How many hours did you spend in class today? \_\_\_\_\_
28. Did you work today?  
1. Yes 2. No
29. Assume that you are about to receive 3,000 NIS in your account immediately. Instead, we suggest you get a sum of money in a year from now. What is the minimum amount you will be willing to receive in a year instead of receiving 3,000 NIS now?  
Answer: \_\_\_\_\_
30. Imagine that you are offered a lottery ticket, for a lottery with 10 participants (so your chance of winning is 1 in 10). The prize is a sum of NIS 2,000. What is the maximum amount you would be willing to pay for the ticket?  
I am willing to pay a maximum of NIS \_\_\_\_\_ to purchase the lottery ticket

Please write down an ID number (can be any number) in order to receive the payment.

Enter this number again in the strip below, copy it, and save it, and when you go to receive the payment you may hand in this strip to receive payment (in case you do not remember the number you wrote).

Tear here-----

Please enter the ID number again and tear the page.

For the second part of this project, you must answer 9 questions about the data that are in the document inside the envelope.

- For each correct answer you will receive 2 NIS, in addition to the 20 NIS you received in Part A.
- For any incorrect answer (or unanswered questions), you will be charged 1 NIS out of the 20 NIS you received in Part A.

Part B—Long-Term Savings

Assume that you worked throughout the year, and the document refers to your personal savings.

Please answer the following as accurately as possible:

31. How much money has been accumulated so far (at the end of the reporting period)?  
\_\_\_\_\_
32. What is the rate of management fees on current deposits? \_\_\_\_\_
33. What is the rate of management fees on the total accrual? \_\_\_\_\_
34. How much money was paid in the past year for management fees? \_\_\_\_\_
35. What is the expected monthly retirement benefit?  
\_\_\_\_\_
36. Did your employer pay last year's pension provision? \_\_\_\_\_
37. If the management fees are the same as the average management fees reported by the pension provider, do you think that the monthly retirement benefit will be higher than currently expects? a. Yes b. No
38. Would you prefer to waive your life insurance coverage? a. Yes b. No
39. What is the rate of return used to calculate the monthly retirement benefit? \_\_\_\_\_

Finally, please answer the following questions. In order to receive the payment these must be answered as well.

40. To what extent did you read the data in detail in the summary of the financial report?  
a. Not at all b. To a small extent c. To a large extent d. I received only a summary of the report e. I only received the full report
41. To what extent did you understand the data appearing in detail in the summary of the financial report?  
a. Not at all b. Slightly c. Very much d. I received only a summary of the report e. I only received the full report
42. On a scale of 0 to 10, where 0 represents "not at all" and 10 represents "very": How tired are you at the moment?  
Answer: \_\_\_\_\_
43. On a scale of 0 to 10, where 0 represents "very low difficulty" and 10 represents "very high difficulty": How difficult was it for you to answer the questions related to the reading section?  
Answer: \_\_\_\_\_

## Appendix B: Descriptive statistics

### Appendix Table B1.

Descriptive statistics for the student sample, print version (Study 1)

Variable	Short report	Long report	Combined report	Total
Number of participants	122	129	110	361
Male (indicator)	0.557 (0.045)	0.465 (0.044)	0.555 (0.048)	0.524 (0.026)
Live past age 85	0.707 (0.018)	0.707 (0.021)	0.736 (0.022)	0.716 (0.012)
Age (years)	24.7 (0.26)	24.4 (0.29)	25.0 (0.32)	24.7 (0.17)
Present bias (perceived annual interest rate)	0.681 (0.068)	0.674 (0.070)	0.666 (0.074)	0.674 (0.041)
Risk premium	97.0 (9.2)	116.0 (7.2)	105.2 (11.3)	106.3 (5.3)
Smoker (indicator)	0.270 (0.040)	0.271 (0.039)	0.227 (0.040)	0.258 (0.023)
Past smoker (indicator)	0.417 (0.045)	0.403 (0.043)	0.355 (0.046)	0.393 (0.046)
Read reports (indicator)	0.328 (0.043)	0.349 (0.042)	0.318 (0.045)	0.332 (0.025)
Tracking (indicator)	0.279 (0.041)	0.326 (0.041)	0.300 (0.044)	0.302 (0.024)
Tired	5.418 (0.228)	5.159 (0.232)	4.890 (0.234)	5.165 (0.134)
Difficulty answering questions	5.079	5.216	4.981	5.098



Variable	Short report	Long report	Combined report	Total
	(0.210)	(0.215)	(0.209)	(0.122)
Correct answers (out of 9)	5.555 (0.141)	5.363 (0.144)	5.318 (0.176)	5.414 (0.088)
Correct answers (difficult questions; out of 3)	1.533 (0.064)	1.380 (0.071)	1.409 (0.078)	1.440 (0.041)

*Note.* The table shows the means and standard errors (in parentheses) for the dependent variables—correct answers and correct answers for the difficult questions—and the controlled variables—male indicator (Male); age (Age); smoking habits indicators (Smoker and Past smoker—for a discussion on smoking, time preference, and long-term saving decisions see Hurwitz and Sade (in press)); perceived probability of reaching age 85 (Live past age 85); risk premium (the measurement of risk preference is based on the participants’ self-reported maximum amount they would be willing to pay for a lottery ticket with an expected return of NIS 200. The premium is calculated as the difference between 200 and individual  $i$ ’s willingness to pay); time preference score (Present bias—the measurement of time preference is based on the participants’ self-reported minimum amount they would be willing to accept 1 year from now instead of NIS 3,000 today. The score is the interest rate); checking the bank account more than once a week indicator (Tracking); reading pension reports (Read reports); self-reported fatigue status (Tired). Combined report consisted of the short and long reports.

## Appendix Table B2.

Descriptive statistics for the student sample, digital version (Study 2)

Variable	Short report	Long report	Combined report	Total
Number of participants	46	32	38	116
Male (indicator)	0.391 (0.073)	0.563 (0.089)	0.474 (0.082)	0.466 (0.046)
Live Past Age 85	0.657 (0.026)	0.650 (0.038)	0.713 (0.026)	0.673 (0.017)
Age (years)	28.6 (1.07)	30.2 (1.47)	27.5 (0.91)	28.7 (0.66)
Present bias (perceived annual interest rate)	1.166 (0.299)	0.928 (0.323)	0.491 (0.089)	0.879 (0.152)
Risk premium ( difference between the risk neutral and WTP)	114.4 (11.1)	120.2 (12.6)	99.1 (13.0)	110.9 (7.0)
Smoker (indicator)	0.196 (0.059)	0.219 (0.074)	0.053 (0.037)	0.155 (0.034)
Past smoker (indicator)	0.370 (0.072)	0.281 (0.081)	0.237 (0.070)	0.302 (0.043)
Read reports (indicator)	0.543 (0.074)	0.469 (0.090)	0.605 (0.080)	0.543 (0.046)
Tracking (indicator)	0.283 (0.067)	0.281 (0.081)	0.368 (0.079)	0.310 (0.043)
Tired	4.739 (0.472)	5.063 (0.492)	4.711 (0.493)	4.819 (0.280)
Total time (s)	1530.7 (126.6)	1346.9 (84.2)	1346.6 (121.7)	1419.7 (68.2)

Variable	Short report	Long report	Combined report	Total
Difficulty answering questions	4.413 (0.427)	3.719 (0.419)	3.526 (0.414)	3.931 (0.247)
Correct answers (out of 9)	6.935 (0.223)	7.406 (0.224)	6.947 (0.269)	7.069 (0.139)
Correct answers (difficult questions; out of 3)	1.935 (0.133)	2.063 (0.142)	1.974 (0.133)	1.983 (0.078)

*Note.* The table shows the means and standard errors (in parentheses) for the dependent variables—correct answers and correct answers for the difficult questions—and the controlled variables—male indicator (Male); age (Age); smoking habits indicators (Smoker and Past smoker); perceived probability of reaching age 85 (Live past age 85); risk premium (the measurement of risk preference is based on the participants’ self-reported maximum amount they would be willing to pay for a lottery ticket with an expected return of NIS 200. The premium is calculated as the difference between 200 and individual  $i$ ’s willingness to pay); time preference score (Present bias—the measurement of time preference is based on the participants’ self-reported minimum amount they would be willing to accept 1 year from now instead of NIS 3,000 today. The score is the interest rate); checking the bank account more than once a week indicator (Tracking); reading pension reports (Read reports); self-reported fatigue status (Tired); actual time needed to submit the answers (Total time). Combined report consisted of the short and long reports. WTP = Willingness to pay.

### Appendix Table B3.

Descriptive statistics for the representative working-age sample, digital version (Study 3)

Variable	Short report	Long report	Combined report	Total
Number of participants	243	247	259	749
Male (indicator)	0.486 (0.032)	0.506 (0.032)	0.463 (0.031)	0.485 (0.018)
Live past age 85	0.642 (0.014)	0.667 (0.015)	0.656 (0.014)	0.655 (0.008)
Age (years)	40.8 (0.81)	40.1 (0.80)	41.5 (0.80)	40.8 (0.47)
Present bias (perceived annual interest rate)	1.422 (0.157)	1.408 (0.153)	1.181 (0.129)	1.334 (0.084)
Risk premium (difference between the risk neutral and WTP)	146.3 (3.5)	146.7 (3.7)	141.5 (3.9)	144.8 (2.1)
Smoker (indicator)	0.165 (0.024)	0.142 (0.022)	0.143 (0.022)	0.150 (0.013)
Past smoker (indicator)	0.403 (0.032)	0.375 (0.018)	0.375 (0.030)	0.375 (0.018)
Read reports (indicator)	0.593 (0.032)	0.559 (0.032)	0.610 (0.030)	0.587 (0.018)
Tracking (indicator)	0.251 (0.028)	0.231 (0.027)	0.247 (0.027)	0.243 (0.016)
Tired	5.103 (0.189)	4.798 (0.174)	4.699 (0.175)	4.862 (0.103)
Total time (s)	1509.7 (72.5)	1690.6 (87.0)	1529.0 (67.0)	1576.0 (43.8)

Variable	Short report	Long report	Combined report	Total
Education	14.0 (0.116)	14.0 (0.106)	14.0 (0.109)	14.0 (0.064)
Difficulty answering questions	4.909 (0.177)	4.996 (0.164)	4.907 (0.174)	4.937 (0.099)
Correct answers (out of 9)	6.053*** (0.127)	6.648*** (0.118)	6.490 (0.125)	6.401 (0.072)
Correct answers (difficult questions; out of 3)	1.810 (0.052)	1.903 (0.053)	1.942 (0.054)	1.887 (0.031)

*Note.* The table shows the means and standard errors (in parentheses) for the dependent variables—correct answers, and correct answers for the difficult questions—and the controlled variables—male indicator (Male); age (Age); smoking habits indicators (Smoker and Past smoker); perceived probability of reaching age 85 (Live past age 85); risk premium (the measurement of risk preference is based on the participants’ self-reported maximum amount they would be willing to pay for a lottery ticket with an expected return of NIS 200. The premium is calculated as a difference between 200 and individual  $i$ ’s willingness to pay); time preference score (Present bias—the measurement of time preference is based on the participants’ self-reported minimum amount they would be willing to accept 1 year from now instead of NIS 3,000 today. The score is the interest rate); checking the bank account more than once a week indicator (Tracking); reading pension reports (Read reports); self-reported fatigue status (Tired); actual time needed to submit the answers (Total time). Combined report consisted of the short and long reports. WTP = Willingness to pay.

\*\*\* indicates significance levels in paired  $t$  tests between the respective column and the rest of the sample of 1%.

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<sup>i</sup> In this context, less is more refers to the improved ability of individuals to learn from summaries in comparison to more detailed information. In this article, we refer to a subcase of presenting *financial-numerical* information in concise formats.

<sup>ii</sup> For instance, Ben-David, Mintz, and Sade (2019) documents that less complex reminders have a greater effect on reducing overdraft fees.

<sup>iii</sup> Comprehension valuation is often based on questions on the content of the text given to participants.

<sup>iv</sup> Most of the data included in the long report are also available in the short report, but the data in the short form are presented more concisely within a smaller number of tables, using simpler, less technical language.

<sup>v</sup> Three of the nine were defined as difficult (and important) questions by representatives of the Israeli Ministry of Finance. These questions required *understanding* the information rather than simply finding it in the report.

<sup>vi</sup> This was a formatted presentation of the pension report as a locked PDF file with no search option. Nonlinear navigation was allowed using scrolling (moving the text smoothly up and down the screen, revealing the out-of-view parts of the text) and paging (moving full pages of the text up and down the screen).

<sup>vii</sup> Figures in U.S. dollars are about 0.29 of the reported sums in Israeli new shekels.

<sup>viii</sup> The information in the reports includes a small box of data that states the average fees for all savers in the pension fund. This data box is placed near information regarding the management fees of the specific saver. In the short form, the box is presented in a more graphical way.]

<sup>ix</sup> These questions required *understanding* the information rather than simply finding it in the report.

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<sup>x</sup> Participants in this study were students because we wanted to deliver actual paper envelopes with pension reports inside. This is harder to perform with a representative population, as it would be difficult to monitor the rate at which the mail was opened and to prevent selection bias resulting from the characteristics of individuals tending to open their mail.

<sup>xi</sup> For a discussion on smoking, time preference, and long-term savings decisions, see Hurwitz and Sade (in press).

<sup>xii</sup> In line with previous studies (Booij & van Praag, 2009; Shavit, Lahav, & Benzion, 2013), the measurement of risk preference is based on the participants' self-reported maximum amount they would be willing to pay for a lottery ticket with an expected return of NIS 200. The premium is calculated as the difference between 200 and individual *i*'s willingness to pay.

<sup>xiii</sup> Similar to the approach of Lahav, Benzion, and Shavit (2011), the measurement of time preference is based on the participants' self-reported minimum amount they would be willing to accept 1 year in the future instead of NIS 3,000 today. The score is the elicited subjective interest rate.

<sup>xiv</sup> Meir, Mugerma, and Sade (2016) show the specific relevance of this control variable.

<sup>xv</sup> The ordered probit results are not reported here but are available from the authors upon request.

<sup>xvi</sup> Both political affiliation and place of residence are correlated with sociodemographic characteristics that might directly or indirectly affect financial literacy and ability in general (Cutler, 2002; Lusardi & Mitchell, 2011). These data were available from the survey company (Midgam Panel) we used in the experiment.

<sup>xvii</sup> We did not use the variable living past age 95, as previous research suggests that subjective survival forecasts exhibit systematic biases; in particular, many respondents fail to account for increases in yearly mortality rates with age (Elder, 2013).

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<sup>xviii</sup> Note, this survey was an online survey. Therefore, we expect there could be a bias toward participants with more digital awareness, regarding age.

<sup>xix</sup> It is also evident that it took the general population more time to answer the questions (not statistically significant).