American Finance Association - PhD Student Poster Session

Financial Health Scoring and Personal Finances

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Background

The Principles of Responsible Banking - the world's leading sustainable banking framework - recommend that **banks score the financial well-being of their customers to monitor the effect of their products and services on their customers' finances** [1]. Moreover, banks use such scores not only for steering and reporting purposes, but also directly **disclose them to their customers, in order to encourage them to reflect on their finances and push them towards sources of financial advice** [2]. However, so far no study has investigated **how the disclosure of a financial well-being score affects consumer financial behavior**. Given the increasing promotion, distribution, and accessibility of such scores, answering this question is relevant to policy, industry, and consumers alike.

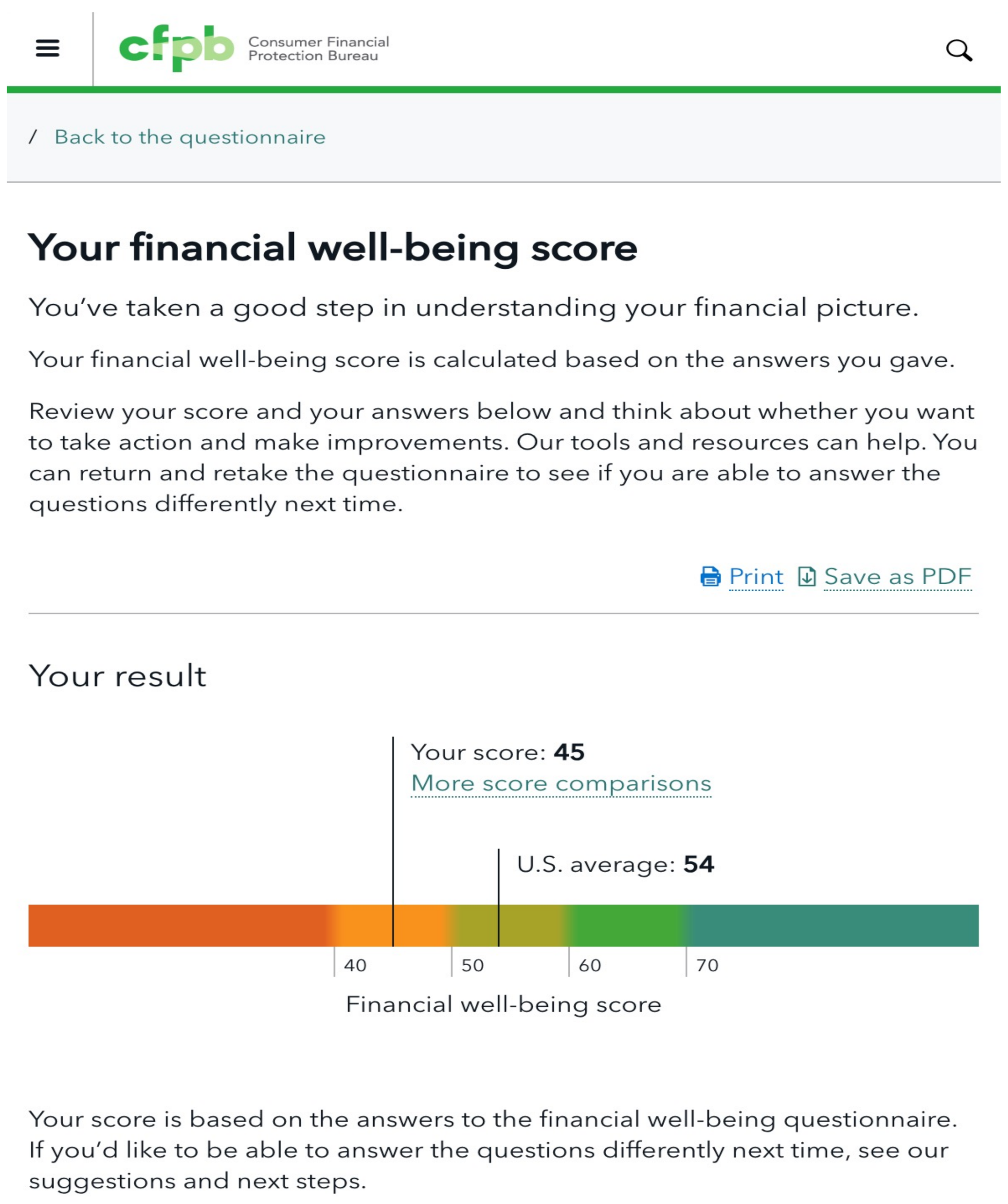

Fig. 1 The financial well-being score of the CFPB [3] self-administered online (see https://www.consumerfinance.gov/consumer-tools/financial-well-being/)

Key Findings

- Solely providing a financial well-being score does not seem to influence consumer financial behavior as measured by risk taking or the marginal propensity to save out of an unexpected windfall.
- Adding information on the national average to the financial well-being score significantly decreases risk taking and significantly increases the marginal propensity to save by 5.95 percentage points on average as compared to a control group who does not receive a treatment.
- Lastly, the financial well-being score significantly decreases participant 's perceived financial security . Information on the national average mitigates this effect.

Experimental Design

Disclosing financial well-being scores can **"provoke self-reflection, creating a teachable moment to steer consumers toward sources of financial advice or coaching."** [2] We investigate this hypothesis by **examining the effect of the financial well-being score of the Consumer Financial Protection Bureau (CFPB) on personal finances** (see Fig. 1) [3]. The score is widely used, easy to administer, and the CFPB provides the scoring mechanism as well as information on the national average score. Further, the score is survey based and calculated from answers to ten Likert scale questions. To examine the effects of the questions, the score, and the peer information on consumer financial behavior, we run an **online experiment with American participants recruited through Prolific**.

Treatment	Group 1	2	3	4
Questions to calculate the financial well-being score	-	✓	✓	✓
Financial well-being score	-	-	✓	✓
Information on the national average	-	-	-	✓

Tab. 1 The experimental design

As depicted in Tab. 1, **participants are randomly assigned to four groups**. The first group does not receive a treatment but only our outcome variables are elicited. Hence, this group serves as our **control group**. The second group receives the **questions used to calculate the financial well-being score**. Participants in the third group receive the **questions and their corresponding scores** as depicted in Fig. 2.

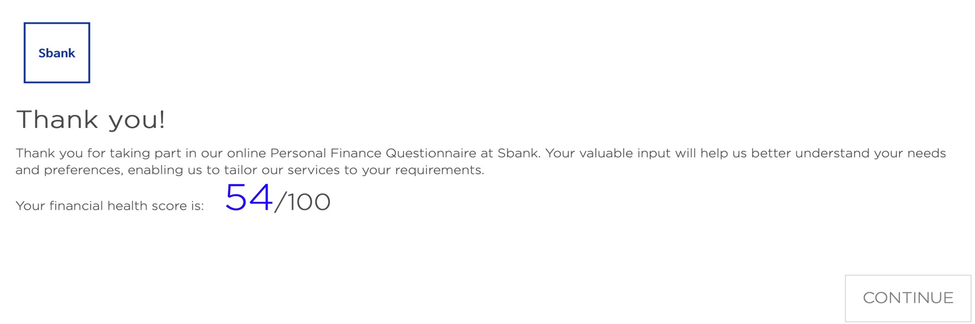

Fig. 2 The treatment in group 3

Participants in the fourth group receive the **questions, their scores, and information on the national average score** as depicted in Fig. 3.

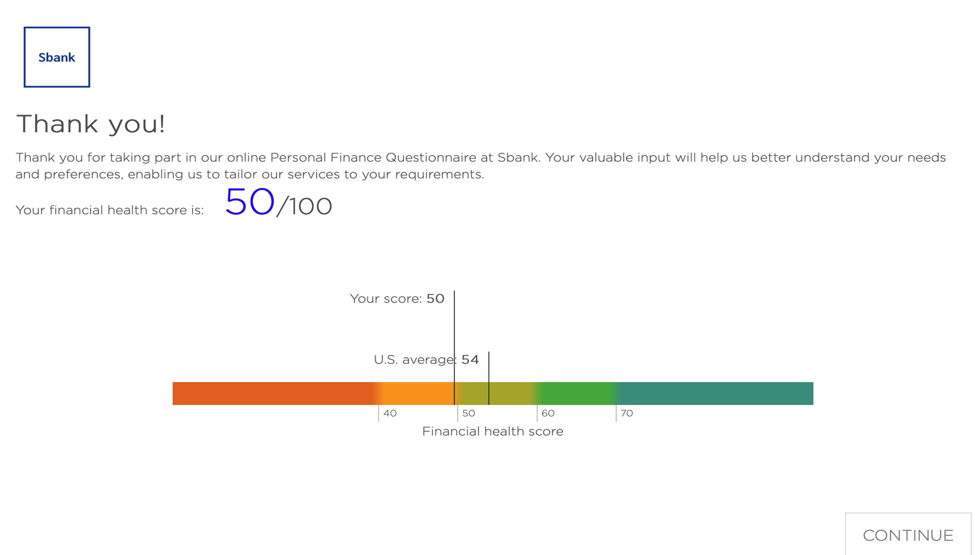

Fig. 3 The treatment in group 4

Empirical Strategy

To measure the effect of the treatments on the financial behavior of our participants, we measure **risk taking** using the Holt-Laury lottery [4] and the **marginal propensity to save** [5]. Further, we measure **perceived financial security** [6] to examine the effect of the treatments on participant's feelings towards their finances. Additionally, we obtain several control variables like age, gender, income and wealth among others. Our **regression equation is a linear regression model** of the following form:

$$Y_i = \beta_0 + \beta_2 D_{2i} + \beta_3 D_{3i} + \beta_4 D_{4i} + \boldsymbol{\eta X}_i + \epsilon_i$$

Equ. 1 The regression equation

The outcome Y_i for user i is regressed on dummy variables D_{2i}, D_{3i} and D_{4i} representing the treatment groups 2, 3 and 4. The reference category is group 1. The vector $\boldsymbol{X_i}$ contains control variables. $\in_i$ represents an unobserved disturbance term. Standard errors are robust.

Results

Preliminary regression results as depicted in Tab. 2 indicate that **solely providing the score to participants does not influence their financial behavior** as measured by risk taking or the marginal propensity to save. However, **adding information on the national average significantly decreases risk taking and significantly increases the marginal propensity to save**. In contrast, **solely providing the score significantly decreases perceived financial security**. Adding the national average mitigates this effect.

	Risk taking	Marginal propensity to save	Financial security
(Intercept)	0.456***	59.26***	3.56***
	(0.072)	(6.336)	(0.386)
Group 2	0.009	1.28	−0.177
	(0.027)	(3.379)	(0.210)
Group 3	−0.002	0.12	**−0.424****
	(0.027)	(3.326)	(0.208)
Group 4	**−0.046***	**5.95***	−0.292
	(0.026)	(3.426)	(0.211)
Controls	✓	✓	✓
Observations	599	599	599
R^2	0.05611	0.03188	0.1436
Adjusted R^2	0.02849	0.01205	0.126

Tab. 2 The regression results

Conclusion and Next Steps

Banks should consider the downstream effects of providing consumers with peer information when they disclose their financial well-being scores. To provide further recommendations, we explore the effect of peer information on consumer financial behavior in more detail and record additional outcome variables related to financial behavior in a refined version of the experiment.

References
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