Financial Life Park (FLiP)

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Overview

Introduction

- Financial literacy is essential to the later success in life for children
- Hastings, Madrian, and Skimmyhorn (2013): Financial literacy is essential for engaging in financial practices (tracking expenses, savings, paying bills on time, ...) and avoids negative credit behaviour such as debt accumulation or high-cost borrowing
- The Financial Life Park (FLiP) wants to increase the control of the own financial situation and reduce the growing debt of young people

What is the Financial Life Park?

- Founded and backed up by Erste Bank Group
- Offers appropriate courses for different knowledge levels at different age brackets

  $\Rightarrow$ Activities are offered for free
  $\Rightarrow$ Mix of personal communication and use of technological devices

Evaluation of the FLiP

- ⇒ We want to measure the causal impact of the Financial Life Park on financial literacy of teenagers who have participated in some of the programs offered
- ⇒ We propose to conduct an impact assessment rather than an economic evaluation
- ⇒ Similar to other authors, we want to use questionnaires to assess the improvement of financial literacy caused by the FLiP
  - ⇒ Questionnaires both for children as well as parents

Questionnaire for 10-14 year old students

Lührmann, Serra-Garcia, and Winter (2015)

- impact evaluation of a financial education program in Germany
- questionnaire which deals with current financial decisions and situations

1. Attitudes towards finance:

"To deal with financial matters..."

is no fun	1	2	3	4	5	is great fun

"In money and financial matters, I am..."

badly versed	1	2	3	4	5	very well versed

Questionnaire for 10-14 year old students

2. Financial knowledge:

   "Advertising intends to inform me about the best products."

Strongly disagree	1	2	3	4	5	strongly agree

3. Financial behavior:

   "I often buy spontaneously, what I like to have."

Strongly disagree	1	2	3	4	5	strongly agree

   Did you save in the last four weeks?
   No
   Yes ______ Euro

Questionnaire for 15-18+ year old students

Lusardi, Mitchell, and Curto (2010) analyze financial literacy among young people in the US

⇒ via the National Longitudinal Survey of Youth fielded in 2007-2008

The following questions have been used:

1. *Suppose you had $100 in savings account and the interest rate was 2% per year. After five years, how much do you think you would have in the account if you left the money to grow: more than $102, exactly $102 or less than $102?*

   ⇒ assesses the knowledge about interest rate and financial numeracy

Questionnaire for 15-18+ year old students

2. *Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year After one year, would you be able to buy more than, exactly the same as or less than today with the money in this account?*
   - ⇒ assesses the knowledge about interest rate, inflation and financial numeracy
3. *Do you think that the following statement is true of false? "Buying a single company stock usually provides a safer return than a stock mutual fund."*
   - ⇒ assesses the knowledge of risk diversification which is necessary to perform investment decision

Questionnaire for parents

Lusardi, Mitchell, and Curto (2010) find that parents financial literacy is a strong indicator of children's financial literacy

Hospido, Villanueva, and Zamarro (2015) use a questionnaire in order to assess financial literacy and socio-demographic characteristics of parents that is compatible with our approach:

- 20 questions in total, asked online
- about their education, occupation as well as socio-economic background (number of cars, televisions, availability of room and table to study, etc.).
- We expect a high response rate (83 per cent in spanish paper)

Primary Strategy

- Given scores for pre- and post-treatment periods...
- for treatment and control group
- How is the *change* in the score affected by FLiP?
- **Fixed effects**
  - Effect (δ):

$$\Delta Y_{s,i} = Y_{s,i}(1) - Y_{s,i}(0) = \alpha_s + \delta \mathbb{1}(T_{s,i} = 1) + \varepsilon_{s,i}$$

  - Assumption:

$$\mathbb{E}[Y^0_{s,i}(1) - Y^0_{s,i}(0) | T_{s,i} = 1] \stackrel{!}{=} \mathbb{E}[Y^0_{s,i}(1) - Y^0_{s,i}(0) | T_{s,i} = 0]$$

Alternative Strategy & Robustness Checks

- **Difference-in-Difference** (θ)

$$
\begin{aligned}
Y_{i,t} = & \alpha + \beta_1 \mathbb{1}(t = 1) + \beta_2 \mathbb{1}(T_i = 1) + \\
& \theta \mathbb{1}(t = 1) \times \mathbb{1}(T_i = 1) + \omega Z_{i,t} + \gamma X_{i,t} + \varepsilon_{i,t}
\end{aligned}
$$

- $X_{i,t},\ Z_{i,t}$ contain class & individual characteristics
- Parallel trends assumption
- **Robustness Checks**
    - Before-After Estimator of visitors
    - Matching students based on $X_{i,t},\ Z_{i,t}$

Timetable

Project stages

- **February 2019:** Kick-off meeting with the Erste Bank Group and BMBWF
- **February 2019:** Start of the project
- **February 2019:** Start observation period
- **June 2019:** End of the observation period
- **February 2020:** Interim report
- **January 2021:** Draft version of the final report
- **February 2021:** End of the project + Final report

References

Hastings, Justine S, Brigitte C Madrian, and William L Skimmyhorn (2013). "Financial literacy, financial education, and economic outcomes". In: *Annu. Rev. Econ.* 5.1, pp. 347–373.

Hospido, Laura, Ernesto Villanueva, and Gema Zamarro (2015). "Finance for all: the impact of financial literacy training in compulsory secondary education in spain". In: *Banco de Espana Working Paper* 1502.

Lührmann, Melanie, Marta Serra-Garcia, and Joachim Winter (2015). "Teaching teenagers in finance: does it work?". In: *Journal of Banking & Finance* 54, pp. 160–174.

Lusardi, Annamaria, Olivia S Mitchell, and Vilsa Curto (2010). "Financial literacy among the young". In: *Journal of consumer affairs* 44.2, pp. 358–380.