2017 Cherry Blossom Financial Education Institute

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GFLEC
School of Business
George Washington University
“Four Bright Coins Shining At Me”

Financial Education In Childhood, Financial Confidence In Adulthood

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Motivation

• Extensive literature on the role of financial literacy in increasing individual ability to manage income and wealth during lifecycle.

• Financial education:
  - Formal programs in school
  - Targeted courses
  - Little focus on creating good habits early on.
Research question

• Pocket money in childhood
  → Financial knowledge in adulthood

• Main idea: exposure to managing money generates familiarity with good financial behaviors maintained later in life.

• Finding: respondents who received an allowance in childhood report higher level of financial literacy as adults.

• Contribution: detect a practice which induce people to have a planning attitude.
Previous literature


- **Early childhood education** (Heckman and coauthors).


Data: DHS 2015

- Representative of Dutch population.
- Around 2,100 households. All members aged 16 or more interviewed.
- Collected using online questionnaire.

- **Detailed information** about individual characteristics, employment, pensions, living conditions, mortgages, income, assets, loans, health, economic and psychological concepts.
Key questions

• How knowledgeable do you consider yourself with respect to financial matters?
  1. Not knowledgeable
  2. More or less knowledgeable
  3. Knowledgeable
  4. Very knowledgeable

• When you were between 8 and 12 years of age, did you receive an allowance from your parents then? By allowance we mean a fixed amount received on a regular basis.
  0. “Occasionally” or “No”
  1. “Yes” or “Yes, but it was sometimes forgotten”

• 54% received an allowance.
Descriptive statistics

- Financial confidence **higher** among those who received an allowance.

![Financial Knowledge and Allowance Chart]

- **Source:** DHS 2015
- **Observations:** 2,676
Main Model

• **Order Probit Model** (FL going from 1 to 4).

• Main regressor of interest: receiving allowance as child.

• Note: uncorrelated with current variables that determine FL (government programs, macroeconomic shock).

• Controls: gender, age, education, working and marital status, household composition, income, regional indicators.

• Control for parental attitudes and **family background**: respondent’s (grand)parents taught how to manage a little budget (age 12-16).
## Main Result

- Allowance statistically significant.

<table>
<thead>
<tr>
<th></th>
<th>Coeff</th>
<th>No</th>
<th>A bit</th>
<th>Yes</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allowance</td>
<td>0.118</td>
<td>-0.028</td>
<td>-0.011</td>
<td>0.030</td>
<td>0.009</td>
</tr>
<tr>
<td></td>
<td>(0.055)</td>
<td>(0.013)</td>
<td>(0.005)</td>
<td>(0.014)</td>
<td>(0.004)</td>
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<tr>
<td>Female</td>
<td>-0.321</td>
<td>0.076</td>
<td>0.029</td>
<td>-0.080</td>
<td>-0.025</td>
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<td></td>
<td>***</td>
<td>***</td>
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<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Age</td>
<td>-0.003</td>
<td>0.001</td>
<td>0.000</td>
<td>-0.001</td>
<td>-0.000</td>
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<tr>
<td>College</td>
<td>0.216</td>
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<td>-0.020</td>
<td>0.054</td>
<td>0.017</td>
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<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Income</td>
<td>0.039</td>
<td>-0.009</td>
<td>-0.004</td>
<td>0.010</td>
<td>0.003</td>
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<tr>
<td></td>
<td>***</td>
<td>***</td>
<td>***</td>
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<td>***</td>
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<tr>
<td>Working</td>
<td>-0.027</td>
<td>0.006</td>
<td>0.002</td>
<td>-0.007</td>
<td>-0.002</td>
</tr>
<tr>
<td>Taught budgeting</td>
<td>0.196</td>
<td>-0.046</td>
<td>-0.018</td>
<td>0.049</td>
<td>0.015</td>
</tr>
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<td></td>
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<tr>
<td>Married</td>
<td>0.147</td>
<td>-0.035</td>
<td>-0.013</td>
<td>0.037</td>
<td>0.012</td>
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<td>**</td>
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<td>**</td>
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<tr>
<td># Children</td>
<td>-0.008</td>
<td>0.002</td>
<td>0.001</td>
<td>-0.002</td>
<td>-0.001</td>
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<tr>
<td>Observations</td>
<td>2,014</td>
<td>2,014</td>
<td>2,014</td>
<td>2,014</td>
<td>2,014</td>
</tr>
</tbody>
</table>
Robustness checks

• Order Logit Model and OLS.

• **Intensity matters**: individuals always receiving the allowance drive results.

• Additional controls:
  - Home-ownership.
  - Number household members.
  - Age squared.

• **Additional retrospective variables**:
  - Little chores.
  - Parents control how money spent.
  - Teen working.
  - (Grand)parents pushing teen to save.
Within-couple FE

- Compare partners in the household.
- Control for unobservables common in the couple (assortative matching).

<table>
<thead>
<tr>
<th>Feature</th>
<th>2 Categories</th>
<th>4 Categories</th>
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</thead>
<tbody>
<tr>
<td>Allowance</td>
<td>0.102**</td>
<td>0.192**</td>
</tr>
<tr>
<td></td>
<td>(0.048)</td>
<td>(0.081)</td>
</tr>
<tr>
<td>Female</td>
<td>-0.084*</td>
<td>-0.130</td>
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<tr>
<td>Age</td>
<td>-0.007</td>
<td>-0.021</td>
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<tr>
<td>College</td>
<td>0.043</td>
<td>0.171*</td>
</tr>
<tr>
<td>Income</td>
<td>0.001</td>
<td>0.019</td>
</tr>
<tr>
<td>Working</td>
<td>-0.073</td>
<td>-0.195*</td>
</tr>
<tr>
<td>Taught budgeting</td>
<td>-0.010</td>
<td>-0.023</td>
</tr>
<tr>
<td>Household head</td>
<td>0.057</td>
<td>0.189**</td>
</tr>
<tr>
<td>Observations</td>
<td>1,953</td>
<td>1,953</td>
</tr>
</tbody>
</table>
Robustness checks

- Similar results for conditional FE Logit.

**Mundlack’s approach** (FE vs. RE):
  - RE order probit model with HH means of the individual regressors.
  - Such averages are not jointly significant: cannot reject RE.
  - Allowance remains positive and significant.
  - When dependent variable equal to one if respondent reported positive level of financial knowledge, zero otherwise: household averages not significant.

**Hausman test** (Conditional logit FE vs RE): Reject RE.
Conclusions

- **Positive effect** of receiving pocket money during childhood on the level of (self-assessed) financial literacy in adulthood.

- Simple and **inexpensive** way to provide financial literacy to children and prepare them for future choices.

- Objection to arguments against financial education on the basis of its costs and limited benefits (Willis, 2011).

- Indirect evidence of the importance of providing basic financial education to children.

- **Wealth inequality** due to gaps in financial knowledge (Lusardi et al, 2016).

- School programs delivered to all children to smooth the differences among families.
Thank you!