Evaluating the Efficacy of School Based Financial Education Programs in Ghana

Jim Berry, Dean Karlan, Menno Pradhan

Impact and Policy Conference: Evidence in Governance Financial Inclusion and Entrepreneurship
Bangkok  September 1, 2012
Overview

- Background
- Research Questions
- Interventions
- Data collection
- Results
Background

• Savings matters
  ▪ Smooth shocks, build assets, invest in human capital

• Optimal savings requires
  – Financial literacy
  – Ability to plan ahead, and commit

• Both may be more effective if taught at young age

• Ghanaian savings rates are low
  ▪ 8-12% compared to 25% (average in Africa)

• Youth financial literacy is lacking (in general)
  ▪ 68% of US youth failed financial literacy test
A curriculum that provides young children with Social and Financial education.
Aflatoun program

• A curriculum that provides young children with Social and Financial education
  – Children learn about themselves, child rights, saving, basic financial concepts, and enterprise. Includes savings clubs
  – Implemented in 84 countries

• In Ghana
  – Delivered in selected primary and secondary schools through NGO financing
  – Evaluation took advantage of expansion of program
Research Questions

• What is the impact of the Aflatoun program on the social and financial knowledge, attitudes and behaviors of children?

• What is the impact of a basic financial education and access to a savings product on the social and financial knowledge, attitudes and behaviors of children?

• What additional affect does the social component of the Aflatoun program have on children?

• Also of interest: cost effectiveness and improving the Aflatoun program
Honest Money Box

- A curriculum that provides young children with Financial education
  - Introduced for the purpose of this evaluation
Experimental Design

Randomized Controlled Trial
School-level randomization to avoid spillover

135 Schools (Grades 5-7)

- Aflatoun: 45 Schools
- Honest Money Box: 45 Schools
- Control: 45 Schools

Treatment Groups:
1. Aflatoun (savings club with social and financial education)
2. Honest Money Box (savings club with financial education only)
Theory of Change

Lack of savings culture amongst Ghanaian youth

Aflatoun (Social/Financial) School savings program

Honest Money Box (Financial) School savings program

Individual students trained on financial education and values

Individual students trained on financial education.

Individuals are socially empowered (understand rights as children) and economically empowered (understand their financial situation)

Individuals understand financial situation and make personal financial decisions and trust in formal financial services

Improved attitude and behavior toward saving, spending, self-efficacy, and interpersonal interactions
Locations in Ghana

East – Volta District

South – Greater Accra

West – Western District
Intervention – Partners

1. Aflatoun

2. Women and Development Project (WADEP)

3. Netherlands Development Organization (SNV)
   1. Berea Social Foundation (BSF)
   2. Support for Community Mobilization Projects and Programs (SCMPP)
   3. Ask Mama Development Organization AMDO

4. Ghana Education Services (GES)
<table>
<thead>
<tr>
<th>Timeline</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept – Oct 2010</td>
<td>Baseline Survey</td>
<td>5,363 respondents</td>
</tr>
<tr>
<td>Oct 2010 – July 2011</td>
<td>Aflatoun/HMB Savings Clubs</td>
<td></td>
</tr>
<tr>
<td>Aug 2011</td>
<td>Endline Survey</td>
<td>Found 98.6% of baseline sample</td>
</tr>
</tbody>
</table>
### What we measured

<table>
<thead>
<tr>
<th>Student Survey Modules</th>
<th>School Survey Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Child demographics</td>
<td>• School physical characteristics</td>
</tr>
<tr>
<td>• Household characteristics</td>
<td>• Enrollment/Teacher Tracking</td>
</tr>
<tr>
<td>• Savings attitudes</td>
<td>• School income/expense</td>
</tr>
<tr>
<td>• Savings behaviors</td>
<td>• Teacher planning, motivation</td>
</tr>
<tr>
<td>• Psychosocial Measures</td>
<td>• After school programming</td>
</tr>
<tr>
<td>• Interpersonal</td>
<td>• Community involvement</td>
</tr>
<tr>
<td>• Risk preference</td>
<td></td>
</tr>
<tr>
<td>• Time preference</td>
<td></td>
</tr>
</tbody>
</table>


RESULTS
## STUDENT DATA ECONOMIC INDICES

<table>
<thead>
<tr>
<th>Index</th>
<th>Aflatoun</th>
<th>Honest Money Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving Behavior</td>
<td>7.03***</td>
<td>9.53***</td>
</tr>
<tr>
<td>Saving Attitude</td>
<td>2.21</td>
<td>4.96**</td>
</tr>
<tr>
<td>Financial Literacy</td>
<td>-0.9</td>
<td>-0.59</td>
</tr>
<tr>
<td>Time Preference</td>
<td>0.917</td>
<td>-2.53</td>
</tr>
<tr>
<td>Risk Preference</td>
<td>-4.54*</td>
<td>-5.27**</td>
</tr>
<tr>
<td>Work</td>
<td>1.79</td>
<td>7.18*</td>
</tr>
<tr>
<td>Expenditure</td>
<td>3.66</td>
<td>-16.2</td>
</tr>
</tbody>
</table>

percentages
## STUDENT DATA  SOCIAL INDICES

<table>
<thead>
<tr>
<th>Index</th>
<th>Aflatoun</th>
<th>Honest Money Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temptation Goods</td>
<td>-0.578</td>
<td>0.0224</td>
</tr>
<tr>
<td>Personal Investment</td>
<td>3.99*</td>
<td>0.736</td>
</tr>
<tr>
<td>Savings Risk Perception</td>
<td>-0.598</td>
<td>-0.156</td>
</tr>
<tr>
<td>Saving Environment</td>
<td>-2.97</td>
<td>1.89</td>
</tr>
<tr>
<td>Confidence</td>
<td>-0.144</td>
<td>1.82</td>
</tr>
<tr>
<td>Social Skills</td>
<td>1.04</td>
<td>1.78</td>
</tr>
</tbody>
</table>

percentages
Savings behavior (+++,++++)

- **Index includes**
  - Frequency and amount saved
  - Whether the students saves at school

- **Both programs have small positive effect on savings**
  - In control group 51 percent of students report to save
  - Programs increase this by about 4 percent
  - No difference between Aflatoun and HMB

- No effect on the amount of money saved or regularity of savings for both programs

- **Strong increase in the percentage of children that save at school**
  - In control group 2 percent of children report to save at school
  - Aflatoun increases this by about 5 percent and HMB by about 9 percent.
  - The amount of money saved at school increases the same for both programs
Savings attitude (0, ++)

• Index captures
  – Whether student recognizes the importance of savings

• Small increase in index for HMB (0.05 std dev)
  – No stat difference between HMB and Aflatoun
  – HBM show less reliance on parents
Work

• Index measures labor market participation and earnings

• HBM increases labor market participation
  – In control group 23 percent of children earn money
  – This increases with HMB by 4 percent
Risk

• Game to allocate money between sure and risky option

• Children become more risk averse with both programs
Self confidence

• No significant effect on index and most variables

• Both Aflatoun and HMB show positive effect on
  “When something bad happens to someone it is usually his or her own fault”
Where we found no overall effects

- **Financial literacy**
  - whether child could think through an spending allocation (shop game)
- **Temptation goods**
  - tendency to spend on temptation goods such as snacks and fun
  - Reduces for those who were already saving at baseline
- **Personal investment**
  - tendency to plan ahead and spend wisely (health, education)
- **Savings risk perception**
  - how safe children regard out of school saving.
- **Saving environment**
  - Is saving supported from home
- **Expenditure**
  - Do children control and spend money
- **Social skills**
  - No teasing, influence other kids
- **Time preference**
  - Game to allocate money between now and the future
- **Test scores**
Concluding remarks

• Study measured very short term effects
• Both programs successful in increasing savings rate
  – Small change
  – Children move savings to school, no increase in amount saved
• Increased risk averseness
• Greater drive to become financially independent with HBM
  – Savings attitude and work participation increase

• Further research
  – No clear gender effects