HARNESSING FINANCIAL EDUCATION TO SPUR ENTREPRENEURSHIP AND INNOVATION

Annamaria Lusardi
Academic Director, Global Financial Literacy Excellence Center (GFLEC)
Chair, OECD-INFE Research Committee
3rd Policy Research Symposium to Advance Financial Literacy

• This is the Third Policy Research Symposium

• Presentations and information for the 2nd Symposium are posted online

• New theme
Financial education and entrepreneurship and innovation

• The focus of this symposium: Harnessing financial education to spur entrepreneurship and innovation
• Entrepreneurs are the backbone of the economy
• Research shows there are many determinants of entrepreneurship
• Financial literacy can play an important role in entrepreneurship and entrepreneurial success
The importance of entrepreneurship

• Entrepreneurs are the backbone of the economy, even in big countries like the U.S.
  - 99.7 percent of U.S. firms are small businesses (2010 Census)
  - About half of the U.S. private sector workforce is employed by small business
  - Since 1995, small businesses created two out of every three new jobs in the U.S.
  - Small businesses lead the way in terms of tech and new product innovation (according to Small Business Administration studies, they produce more patents)
Small businesses become big businesses

Apple started in Steve Jobs’ garage.

Home-based non-employing small businesses become small employers, which in turn become big businesses.
Many factors contribute to entrepreneurship and entrepreneurial success

- Attitude toward risk and optimism
- Access to capital
- Family background
- Peer effects (clusters of entrepreneurs)
- Cognitive ability
- Many more

What about financial literacy?
But much remains unexplained in the data

- Measurement and data issues

Comprehensive data on entrepreneurs is much needed

- Combine data on entrepreneurship and financial literacy/capability
Empirical evidence on financial literacy

• Levels of financial literacy are low around the world
  ▪ Financial Literacy around the World (FLAT World) project
  ▪ *OECD data*

• Very low levels of “risk literacy”
  ▪ Risk is the most difficult concept for people to grasp (see Risk Literacy, Lusardi, 2015)
Online survey of more than 25,000 respondents

First wave in 2009, second wave in 2012

Objective: benchmark and better understand financial capability in America

Representative of the U.S. population

GFLEC has been academic advisor on the survey

We are about to field the 2015 wave
How much do people know?

1. “Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?”

- More than $102
- Exactly $102
- Less than $102
- Don’t know
- Refuse to answer

2. “Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, with the money in this account, would you be able to buy…”

- More than today
- Exactly the same as today
- Less than today
- Don’t know
- Refuse to answer

3. “Do you think the following statement is true or false? Buying a single company stock usually provides a safer return than a stock mutual fund.”

- True
- False
- Don’t know
- Refuse to answer
Financial literacy and labor market activity (age 23-65, retired excluded)

- Entrepreneurs: 47% correct, 34% DK
- Full-time employed: 41% correct, 42% DK
- Part-time employed: 25% correct, 57% DK
- Unemployed: 23% correct, 61% DK
- Others: 21% correct, 63% DK
## Likelihood of being an entrepreneur

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 FL questions correct</td>
<td>0.035***</td>
<td>0.027***</td>
<td>0.020***</td>
<td>0.018***</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.004)</td>
</tr>
<tr>
<td>Age 55+</td>
<td>0.025**</td>
<td>0.022*</td>
<td>0.023*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.012)</td>
<td>(0.012)</td>
<td></td>
</tr>
<tr>
<td>Preference for risk</td>
<td></td>
<td>0.021***</td>
<td>0.020***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.004)</td>
<td>(0.004)</td>
<td></td>
</tr>
<tr>
<td>Income shock</td>
<td></td>
<td>0.028***</td>
<td>0.028***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.004)</td>
<td>(0.004)</td>
<td></td>
</tr>
<tr>
<td>High school graduate</td>
<td></td>
<td></td>
<td>0.009</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.007)</td>
<td></td>
</tr>
<tr>
<td>Some college</td>
<td></td>
<td></td>
<td>0.019***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.007)</td>
<td></td>
</tr>
<tr>
<td>College graduate</td>
<td></td>
<td></td>
<td></td>
<td>0.023***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.008)</td>
</tr>
<tr>
<td>Other variables</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>$N$</td>
<td>18,081</td>
<td>18,081</td>
<td>18,081</td>
<td>18,081</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.005</td>
<td>0.009</td>
<td>0.020</td>
<td>0.021</td>
</tr>
</tbody>
</table>
What is the role of financial literacy?

- Financial literacy is a significant determinant of the likelihood of being an entrepreneur.
- Education also matters but financial literacy has an effect beyond education.
- Other estimation methods (to account for endogeneity) confirm the importance of financial literacy for entrepreneurship.
Financial literacy and financial outcomes

- We study whether financial literacy influences financial outcomes among entrepreneurs, such as:
  - Having too much debt
  - Capacity to buffer against shocks
  - Bankruptcy

- Our empirical analysis shows that financial literacy is associated with better financial outcomes. Highly financially literate entrepreneurs are:
  - 24% less likely to be over-indebted
  - 20% less likely to be vulnerable to shocks
  - Over 60% less likely to go bankrupt

Paper is posted on GFLEC website: www.gflec.org
From research to applications

What can be done to promote entrepreneurship around the world?

• We will hear a lot today about what can be done

• We will also hear testimonials – the real people behind the numbers
From research to applications (continued)

• Share experiences

• We are looking forward to an interactive symposium
  − Leave time to ask questions or to mention projects
  − Learning from each other
Thank you!

Annamaria Lusardi

Global Financial Literacy Excellence Center (GFLEC)
Webpage: http://gflec.org
Blog:  http://annalusardi.blogspot.com/
Twitter:  @A_Lusardi
Facebook: Global Financial Literacy Excellence Center Page

Thanks to our funder: