Financial Literacy and Economic Outcomes: Evidence and Policy Implications

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The growing importance of financial literacy

A new economic landscape

Major changes that increase individuals’ responsibility for their financial well-being

- Changes in the pension landscape
  - More individual accounts and private pensions

- Changes in labor markets
  - Divergence in wages – skills are critical

- Changes in financial markets
  - Greater complexity
  - More opportunities to borrow & in large amounts
Increase in individual responsibility

More complex financial decisions

- **Individuals make many financial decisions**
  - Investment in education
  - Financial security after retirement
  - Investing in financial markets & other markets (buying a home, car, etc.)

- **Not enough to look at asset side; liability side is equally important**
  - Increase in household debt
  - Debt normally incurs higher interest rates than what is earned on assets

- **Financial decisions are complex**
  - Many more financial products than in the past
A large amount of research in past 15 years

Some questions

1. How well-equipped are people to make financial decisions?
2. Are there vulnerable groups?
3. Does financial literacy matter?
4. What can be done to promote financial literacy and financial decision-making?
Measuring financial literacy

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?”

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…”

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.”
Financial Literacy around the World (FLat World)

Evidence from 13 countries:

- USA
- The Netherlands
- Germany
- Italy
- Russia
- Sweden
- New Zealand
- Japan
- Australia
- France
- Switzerland
- Romania
- Canada
European Investment Bank’s Financial Literacy Programme

Bringing together an international team

The United States
The Netherlands
Switzerland
Italy
Sweden
Germany
Turkey
Spain
Portugal

The Financial Literacy Programme connects 9 countries and builds an international collaboration on financial education.
How much do Americans know?

Distribution of responses across the U.S. population (2009 National Financial Capability Survey)

<table>
<thead>
<tr>
<th></th>
<th>Responses</th>
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<tbody>
<tr>
<td></td>
<td>Correct</td>
</tr>
<tr>
<td>Interest rate</td>
<td>65%</td>
</tr>
<tr>
<td>Inflation</td>
<td>64%</td>
</tr>
<tr>
<td>Risk diversif.</td>
<td>52%</td>
</tr>
</tbody>
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NB: Only 30% correctly answer all 3 questions; less than half (46%) got the first two questions right.
How much do the Dutch know?

Distribution of responses across the Dutch population (2010 DNB Household Survey)

<table>
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<tbody>
<tr>
<td></td>
<td>Correct</td>
</tr>
<tr>
<td>Interest rate</td>
<td>85%</td>
</tr>
<tr>
<td>Inflation</td>
<td>77%</td>
</tr>
<tr>
<td>Risk diversif.</td>
<td>52%</td>
</tr>
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NB: Less than half (45%) correctly answer all 3 questions; 73% got the first two questions right.
FLat World: Strikingly similar patterns across countries

- Financial illiteracy is widespread
  - Less than half of the population in many countries can answer three basic financial literacy questions

- Risk diversification is most difficult concept
  - The majority of individuals lack knowledge of concepts such as risk diversification and do not understand the relationship between risk and return
  - Similar pattern of response across countries
  - Prevalence of “do not know” answers
  - Risk literacy matters for financial decisions
Who are the vulnerable groups?

- **Who knows the least?**
  - Those with low income/education, immigrants, those living in rural areas, the elderly, the **young** and **women**

- **Women have lower financial literacy**
  - Need to look closer at the evidence

- **The young have lower financial literacy**
  - Most data sets have information on respondents age 18 and older. New data is available for 15-year olds.
Financial knowledge among women

- Very robust findings of large gender differences in financial knowledge
- Women are much more likely to say “I do not know”

Financial knowledge by gender (% answering 3 Qs correctly)

<table>
<thead>
<tr>
<th>Country</th>
<th>Women</th>
<th>Men</th>
</tr>
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<tbody>
<tr>
<td>US</td>
<td>38%</td>
<td>32%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>35%</td>
<td>29%</td>
</tr>
<tr>
<td>Germany</td>
<td>47%</td>
<td>40%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>39%</td>
<td>38%</td>
</tr>
</tbody>
</table>

At least one "don't know" answer, by gender

<table>
<thead>
<tr>
<th>Country</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>50%</td>
<td>22%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>46%</td>
<td>29%</td>
</tr>
<tr>
<td>Germany</td>
<td>43%</td>
<td>30%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>22%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Legend:
- Red: Women
- Blue: Men
Financial knowledge among the young

Now we have 2012 PISA data on financial literacy that allows us to study financial literacy among high school students in 18 different countries.

New data for 15-year-olds around the world

We have important new data

- 2012 Programme for International Student Assessment (PISA)
- Measuring financial literacy among high school students
Strong performance in financial literacy

Flemish Community (Belgium)

Australia
Estonia
New Zealand
Czech Republic
Poland
Latvia
United States
Slovenia
Spain
Israel
Croatia
Slovak Republic
Colombia

Low performance in financial literacy

Shanghai-China

Average performance of 15-year-olds in financial literacy
Distribution of student performance

Financial literacy performance levels

- **625 and above**
- **550 to <625**
- **475 to <550**
- **400 to <475**
- **Less than 400 points**

Top performers:
- **L5** 10%
- **L4** 22%
- **L3** 30%
- **L2** 23%
- **L1** 15%
A lot of the variation in financial literacy is explained by socio-economic background (parent’s income and education)

We start unequal when it comes to financial literacy and inequality will only grow

How to provide equality of opportunity early in life?
Relationship between socio-economic status and financial literacy, mathematics, and reading performance

Percentage of variation in performance explained by socio-economic status
Why should we care?

- Financial knowledge can be linked to behavior: saving, borrowing, investing, and retirement planning
- Financial knowledge is linked to wealth inequality
- Our paper shows that 30-40% of wealth inequality can be attributed to financial knowledge
Implications for financial education: What the research suggests

- **Need to improve levels of financial literacy**
  - Levels of knowledge are low globally

- **Need for more targeted programs**
  - One size does not fit all

- **Women are an ideal group for fin. educ. programs**

- **Young have very low financial knowledge in all countries**
  - Even in countries with advanced financial markets

- **Very important to provide access to all**
Scalability: Reaching the population

Venues for financial education

- In schools
  - Easier to reach the young

- In the workplace
  - Easier to reach the adults

- In libraries, local communities, museums
  - Where people go to learn
Financial education in schools

Need to prepare the new generations

Financial education in school is critically important:

- Investment in higher education is one of the most important decisions the young face
  - Young people need to understand the weight of this decision

- Need to be financially literate *before* engaging in financial transactions
  - It is much cheaper to educate the young

- Provide an equal opportunity to learn
  - Without fin educ, the young enter adult life on unequal footing
Call to action

**Improving financial education in school**

- Need to train the teachers
- Rigorous curriculum
- Move the focus from “Is it effective?” to “How do we make this effective?”
- Make the content relevant and engaging
- Start early
Call to action

Improving financial education overall

- Talk to the Ministry of Education
- We need ambassadors of financial literacy!
- Make it simple, complexity is a barrier, particularly in the face of widespread financial illiteracy
- Learn from data and research, continue to experiment
Example 1: A new Personal Finance Course in college

Financial Decision-Making: Implications for the Consumer and the Professional

➢ Cover personal finance with a rigorous approach
  • A quantitative approach to personal finance
  • Teaching takes into consideration gender differences in fin literacy

➢ It incorporates some macro, accounting, and risk management

➢ Writing a new textbook on personal finance
  • Joint with a mathematician and a professional writer
Example 2: A program for the young

**Five steps to planning success**

- We designed a program for young workers
- Used videos
- Kept the message free of economic/finance jargon
- Covered concepts, such as risk diversification, in a simple story
- After being exposed to videos, the knowledge and financial decision-making improved
Example 3. Other venues: A network of Finance Museums
GFLEC's global network: Ongoing projects around the world
Our approach is multidisciplinary
FinLab: A Financial Innovation Lab

➢ **Addressing current needs**
  
  • Advance understanding of what works in financial education
  • Integrate financial education and technology
  • Improve financial education programs’ effectiveness
  • Customize financial education: one size does not fit all

➢ **Our Aim**: Drive change in financial education by identifying and fostering the strategies and innovations that promise to transform the financial education landscape

We have set up a Financial Education Innovation Fund
Final thoughts

Financial literacy is like reading and writing
- As it was not possible in the past to participate in society without being able to read and write, so it is not possible to thrive in today’s society without being financially literate

Building human capital for the 21st century
- Everyone deals with finance and finance is sufficiently complex that we cannot leave it to the individual to learn by himself/herself
Financial literacy skills for the 21st century
Contact and further information

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