Center for Financial and Economic Decision Making

A LABOR AND POPULATION PROGRAM

Making Financial Education More Effective: Lessons From Behavioral Economics

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Overview

- Project background and objective
- Selective substantive review
  - Financial education in the OECD and beyond
  - Behavioral economics and personal finance
- Applying behavioral economics to financial education
  - Takeup and completion
  - Content, delivery and retention
  - Achieving and sustaining behavior change
- Other behaviorally-motivated approaches
  - Product design to promote healthy financial choices
  - Disclosures and regulation to prevent poor decision making
- Concluding remarks: moving forward through complementarity

Project Background and Objective

- **Awareness of the need for individual financial capability is growing**
  - **Environmental challenges : short and long-term trends in the financial markets, international pension system reforms**
  - **Increasing evidence that consumers lack financial skills**
  - **Many national and international public and private initiatives**

- **The OECD Financial Education Project was launched in 2003**
  - **Workshops, research reviews, reports and best practice recommendations on key issues**
  - **International Network on Financial Education (2008): more than 135 institutions in 64 countries**
  - **Coordinating efforts to develop an international methodology and guide for systematic and comparable evaluation of financial education projects**

This paper: OECD seeks to explore ways in which insights from behavioral economics can make financial education more effective

What Do We Mean By Financial Education?

- **OECD(2005): Financial education is the process by which consumers**
  - **improve understanding of financial products, concepts and risks and**
  - **through information, instruction and/or objective advice, develop the skills and confidence to**
    - **become more aware of (financial) risks and opportunities,**
    - **make informed choices,**
    - **know where to go for help, and**
    - **take other effective actions to improve their financial well-being.**
- **Large and growing number of programmes, including crisis response**
  - **Main topics tend to be savings/investment, credit, inclusion**
  - **But incredible diversity in goals, scope, form**
    - ***Aims* : from promoting awareness to altering behavior**
    - ***Providers*: schools, employers, NGOs, private firms, governments**
    - ***Delivery* : from brochures, websites to seminars, training courses**

A Clear and Consistent International Policy Need

- **Many consumers have limited financial literacy/capability**
  - **Less than 10% of US households able to answer questions about compound interest, inflation, risk diversification**
  - **More than 60% of UK households have at least one area of weakness**
- **Yet a significant number are also overconfident about their abilities**
  - **Almost 40% of US households rated knowledge as high or very high**
  - **15% of Dutch households report that they do not need more financial information but have poor measured financial knowledge**
- **Across all countries, important socioeconomic disparities exist, especially with respect to income and education**
- **Can be related to three important challenges for financial education**
  - **Pressure to deliver short-term change**
  - **Lack of consumer motivation and counterproductive biases**
  - **No “one size fits all” model for either content or form: need for appropriate targeting**

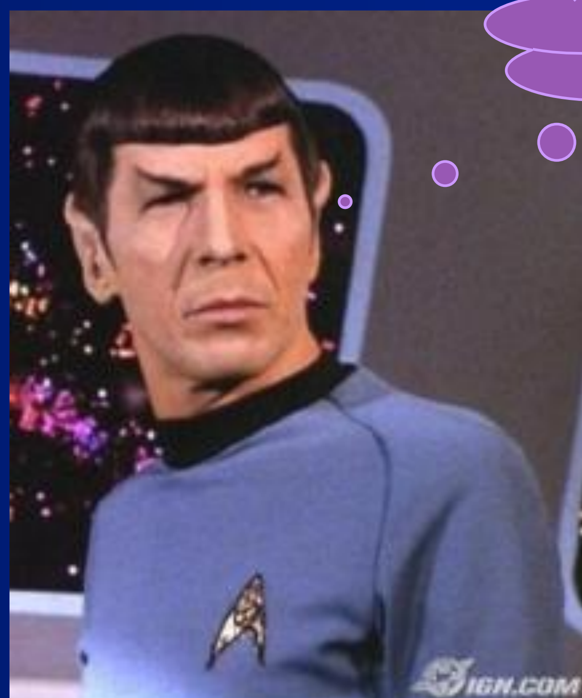
But What Has Financial Education Delivered?

- Early studies found that financial education in schools and workplaces improved financial behavior, but recent work is more mixed
  - Robust literature finds that financial education positively affects knowledge and *intended* behavioral change, and financial knowledge is strongly associated with better financial behavior
  - Fewer studies have demonstrated a convincing direct link between financial education and *actual* behavior change, and measured effects can be relatively small
  - Moreover, financial education may increase confidence without increasing skills
- Is it fair to say that financial education is costly and does not "work"?
  - Not a generic intervention
  - Lack of conclusive evidence partly due to the diverse nature of programmes and extent / quality of evaluation
  - Debate over different approaches, particularly alternative solutions based on behavioral economics

Why Does Behavioral Economics Matter?

- **Economists model behavior by making *assumptions* about how people make choices.**
- **In standard neoclassical models, rational agents make decisions that maximize their private utility, based on all available information**

**Of course, naturally!
Why not?**



Why Does Behavioral Economics Matter?

- Behavioral economists contend that people deviate from these standard assumptions in ways that are *systematic* and *significant*
  - Can be measured and modeled using insights from psychology, cognitive science and biology
  - Have strong and testable implications for choice

- Behavioral economics is important because
  - Incorporating "predictable irrationality" into standard economic frameworks allows us to better analyze (and predict) choices
  - Policy interventions that better account for human nature can more effectively transform behavior

A Simple Framework For Thinking About Departures from The Standard Model

Common assumptions

My individual utility is based on preferences that are consistent across time and independent of context

My beliefs perfectly rationalize and use all available information

My decision process is to maximize the expected value of my private utility

My choice is optimal for my well-being, given the available information and resources

Some Implications for Household Finance: Non-standard Preferences

Time-Inconsistency: Hyperbolic Discounting	• ***Present bias*** **and** ***self-control*** **problems: Failure to stick to plans e.g. undersave / overborrow** • ***Procrastination*** **and** ***inertia*****: Small frictions prevent actions e.g. plan participation, opting-out of teaser rate offers**

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Social Preferences	• ***Social interaction or peer effects*****: Direct pressure or indirect desires for conformity/identity e.g. face-to-face solicitations, "keeping up with the Joneses"** • ***Socially-defined values*****: Altruism, reciprocity equity e.g. charitable giving, tax compliance**

Some Implications for Household Finance: Non-standard Beliefs

Overconfidence	• *Overestimation of own ability*: **Excessive risk-taking e.g. stock market investing** • *Underestimation of own weaknesses*: **Tendency to be naïve about own biases and fallibility e.g. self-control problems** • *Overconfidence in affiliated others*: **Tendency to overestimate others to whom one is related e.g. Excessive investment in employer stock at the cost of diversification**

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Non-standard probabilistic thinking	•***Availability and representativeness heuristics***: **Tendency to judge by resemblance to available data e.g. gambler's fallacy, overinference with respect to past performance of investments** • ***Overweighting / underweighting*** : **Tendency to overweight small probabilities and underweight large probabilities e.g. lottery purchases**

Some Implications for Household Finance: Non-standard Decision Making

Limited Attention	• ***Saliency, recency*** **and** ***relevance*** **matter : Consumers retain limited awareness and only for short periods, and may overlook incentives e.g. financial product fees, government taxes** • **Individuals develop and rely on *heuristics :* Consumers use rules of thumb that can lead to perverse effects e.g. 1/n rule of naïve diversification, simple interest rules** • **Complex decisions can induce predictable problems*:* Information overload, increased risk aversion and even choice avoidance e.g. participation and investment choice in pension plans**

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Emotions and Affect	• **Automatic triggers matter: Advertising materials for financial products with positive affective images have sizable effects on takeup** • ***"Hot" vs "Cold"*: Regardless of type, inducing emotional response can increase visceral decisions e.g. impulse purchase**

How Can Behavioral Economics Increase The Effectiveness of Financial Education ?

Three strategies :

- **Incorporate behavioral economics into financial education programmes**
- **Apply behavioral interventions in addition to programme approach or when program approach is inappropriate**
- **Exploit complementaries to increase effectiveness of both**

Some Strategies For Incorporating Behavioral Economics into Programme Design

Takeup and attendance	• Default enrolment and/or reduce administrative burden • Articulation and visualization of own long-term well-being • Cash/lottery incentives for participation or Self-commitment devices • Quality and targeting of marketing and program content/form: attractive, appropriate frames and affective triggers, and if possible, customize to the individual • Diagnostic tools as part of program enrolment and content: teach strategies that de-bias individuals and/or simplifying rules. • Account for limited attention and understanding of numerical probabilities: make material vivid, salient and comprehensible • Timing and location that support cognitive preparation • Use peer effects/social networks for recruiting, content and structure
Achieving and sustaining behavior change	• Connect knowledge to tangible steps • Link action to programme as closely as possible • Provide resources and tools on ongoing basis, potentially self-commitment devices • For more intensive programs, consider face-to-face interactions; leverage peer effects and social networks for follow-up, monitoring of progress

Alternative "Behavioral" Policy Approaches

- **Profit-maximizing firms and (biased) consumers interact in a market setting, where their interests may or may not be aligned**
  - **Firms may wish to help consumers overcome OR exploit the same biases, depending on context, e.g. banks may wish to reduce present-bias to promote savings products but exploit it to promote borrowing**
- **Policymakers can promote products and interventions designed to "nudge" consumers to make better decisions**
  - ***Use of defaults or active decisions* e.g. auto-enrollment in 401(k) plans and IRAs**
  - ***Self-commitment devices* e.g. Save More Tomorrow(TM)**
  - ***Behavioral incentives* e.g. lotteries to encourage savings**
- **Still need interventions that restrict exploitative behavior**
  - ***Disclosure:* Tools, aids, simplifying materials, framing ….**
  - ***Regulation :* Ban perverse defaults, mandate cooling off periods**

Financial Education And "Behavioral" Product Design / Regulation: Strengths And Limits

- Related but *different* aspects of poor financial decisionmaking
  - Financially-educated consumers may still suffer from cognitive biases
  - Rational consumers may still lack understanding of financial products

- Different approaches: supply-side manipulations of choice-environment vs. long-term process of fundamentally shifting demand

- Both have different strengths and limitations, use depends on context
  - Financial education often does not deliver short-term behavior change
    - Behavioral economics helps to uncover systematic flaws in existing incentive structures to achieve large and relatively immediate changes in behavior
  - Behavioral product design/regulation is only as good as the designer
    - Financial education compensates for policy lags and limitations due to imperfect information and other constraints

- No free lunch: both can be costly and may not "work" if poorly executed

Financial Education And "Behavioral" Product Design / Regulation Are Complementary

- While behavioral economics can enhance financial education, financial education also supports better use of "behavioral" instruments
  - Reduces consumer exposure to deliberate fraud and manipulation
  - Reduces costs for individual policy interventions
  - Reduces the risk of inherent design fallibility by combining financial education with the delivery of "nudges" e.g of "wrong" defaults, inappropriate use of commitment
- Financial decisionmaking is a problem that needs a full complement of tools
  - Policymakers and practitioners have responsibility to provide external incentives and constraints to help ensure appropriate choice environments that protect consumers
  - However, a robust financial system requires cultivation of educated consumers with ability to protect themselves
- Consider the practical question of what works best: Neither financial education and behavioral economics alone have all the answers, but together they offer new and interesting insights for moving forward

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