NONCOGNITIVE DETERMINANTS OF RETIREMENT SAVING BEHAVIOR

May 2 2024

Household Retirement Saving, Investment, and Spending: New Lessons from Behavioral Research

Gianpaolo Parise
EDHEC Business School & CEPR

Kim Peijnenburg
EDHEC Business School & CEPR
NETSPAR & BIGFI
Motivation

- Limited retirement readiness

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Any retirement savings</th>
<th>Retirement savings on track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–29</td>
<td>62</td>
<td>30</td>
</tr>
<tr>
<td>30–44</td>
<td>75</td>
<td>39</td>
</tr>
<tr>
<td>45–59</td>
<td>84</td>
<td>45</td>
</tr>
<tr>
<td>60+</td>
<td>87</td>
<td>52</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Board
This paper: The role of noncognitive abilities

- Other terms for noncognitive abilities are soft abilities, personality traits, character skills.
- Examples: conscientiousness, emotional stability, grit, locus of control
- Different from cognitive abilities, but not devoid of cognition
This paper: Role of noncognitive abilities

Noncognitive abilities → Savings → Retirement readiness

Income
Education
Investment choices
Planning
This paper: Role of noncognitive abilities

- Noncognitive abilities
- Savings
- Investment choices
- Planning
- Income
- Education
- Retirement readiness
Noncognitive abilities

- Measurement as in economics literature: Heckman, Pinto, and Savelyev (2013) state that the most influential taxonomy for measuring noncognitive abilities is the big five personality traits.
- Originally developed in psychology literature and adopted in economics as a measure of noncognitive abilities.
- Focus on conscientiousness as most important for financial decisions.
- Conscientiousness: a tendency to be organized, practical, persistent, self-disciplined, and achievement oriented.
- Other important measures:
  - Grit: Tendency to persevere and having a passion for long term goals.
  - Locus of control: Individual’s belief about the extent to which they can control events in their life.
Measurement noncognitive abilities

- 10 standard survey questions developed in Goldberg (1992)
- Rate extent to which agree or disagree with statements like
  - Do you pay attention to details
  - I am careful and thorough in my work
  - I always meet deadlines
- Use factor analysis to extract one factor
Results: Financial distress

**Figure:** Noncognitive abilities and financial distress.

*Source:* Parise and Peijnenburg (2019)
## Results: Financial choices

### Table: Noncognitive abilities and financial choices

<table>
<thead>
<tr>
<th></th>
<th>Financial wealth buffer</th>
<th>Savings</th>
<th>Unsecured debt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>0.217***</td>
<td>0.045***</td>
<td>-0.035***</td>
</tr>
<tr>
<td></td>
<td>(0.037)</td>
<td>(0.004)</td>
<td>(0.005)</td>
</tr>
<tr>
<td>Controls</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>N</td>
<td>24,306</td>
<td>47,918</td>
<td>10,695</td>
</tr>
</tbody>
</table>

*Source: ‘Author’s Calculations’*
Results: Equity

Figure: Noncognitive abilities and fraction in equity

Source: ‘Author’s Calculations’
Results: Retirement planning

**Figure:** Propensity to plan for retirement

*Source: ‘Author’s Calculations’*
Results: Desired retirement responsibility

Figure: Desired retirement responsibility

Source: ‘Author’s Calculations’
Modelling noncognitive abilities

- Noncognitive abilities impact:
  - Cost of effort
  - Productivity of effort
Origins of noncognitive abilities

- Stable in adulthood
- Influenced by early life experiences and genetic endowments
- Interventions spanning more than five decades show the powerful influence of improving noncognitive abilities in early childhood
Early childhood interventions

The Heckman Equation
How to achieve human potential.

+ Invest
Invest in educational and developmental resources for disadvantaged families to provide equal access to successful early human development.

+ Develop
Nurture early development of cognitive and social skills in children from birth to age five.

+ Sustain
Sustain early development with effective education through to adulthood.

= Gain
Gain a more capable, productive and valuable workforce that pays dividends to America for generations to come.

LEARN MORE AT HECKMANEQUATION.ORG
Conclusions

• Noncognitive abilities key for
  o Financial wealth buffer
  o Savings
  o Investment decision
  o Retirement planning
  o Overall retirement readiness

• Foster noncognitive abilities in early childhood