An investigation of financial capability profiles in later life

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Outline

• Background and theories
• Research aims and conceptual model
• Methods
• Results
• Conclusions and Implication
Background

• Financial capability (FC) is a key antecedent to economic well-being in later life
• Individuals with higher FC are more likely to have positive financial behaviour, which in turn, have better economic well-being

Sherraden, 2013; Lusardi & Mitchell, 2014
Life course perspective

**Linked lives/human agency**
- Dependence
- Multilevel relationships
- Choices

**Changes**
- Dynamics
- Profiles
- Trajectory

**Financial capability**

**Time / period**
- Life stage
- Age

**Life events**
- Experiences
- Transitions

**Diversity**
- Gender
- Race
- Cohort

**Development**
- Advantages
- Disadvantages

Morow-Howell & Sherraden (2015)
Financial capability framework

Sherraden, 2013; Birkenmaier & Huang, 2013

Social & economic structure

Availability of financial products

Financial socialization, education & guidance

Financial literacy: Ability to act

Financial functioning: Action and Behavior

Outcome:
- Financial stability and well-being
- Financial development

Financial inclusion/access: Opportunity to act
Life course + financial capability = Differential patterns

Financial literacy

Financial access

Financial functioning
Research aims and Conceptual model
Research aims

• Identify the heterogeneity of financial capability in later life—patterns of financial capability

• Explore how patterns of financial capability related to life course factors and economic well-being at old age
Data and sample

Sources: 2015 National Financial Capability Study (N=27,564)

Sample selection: Age 55 and older

Final sample size: n= 9,888
Measures of financial capability

**Financial literacy**

- **3 subjective items** (e.g., Good at deal with day to day financial matters, Good at math and calculation; Self-rated financial knowledge)
- **6 objective items** (e.g., interest rates, inflation, mortgage payment, risks between stocks and mutual funds, relationships between interest rates and bonds)

**Financial inclusion/access**

- **5 binary financial ownerships** (e.g., checking, saving, investment, credit cards, & retirement plans)

**Financial functioning/behavior**

- **2 items of positive financial behavior** (e.g., saving for rainy days, set long-term financial goals)
Measures of economic well-being

Economic well-being (Friedline & West, 2016)

• Financial satisfaction (10-point; 1 = not at all satisfied, 10 = extremely satisfied)
• Carrying too much debt (7-point; 1 = strongly disagree; 7 = strongly agree)
• Ability to acquire $2,000 emergency fund (binary; yes/no)
• Difficulties in making ends meet (binary; yes/no)
• Use of alternative financial services (payday lenders, auto title loans, rent-to-own stores, pawn shops) (binary; yes/no)
Control variables

**Sociodemographic variables**
- Gender (1 = male; 0 = female)
- Race (1 = non-white; 0 = white)
- Age (1 = 65+; 0 = 55-64)
- Education (1 = < HS; 2 = some college; 3 = college)
- Marital status (1 = married)
- Numbers of dependent children
- Working status (1 = self-employed; 2 = employed; 3 = not employed; 4 = retired)

**Financial contextual variables**
- Whether received financial education at school/work (1 = yes)
- Whether having financial guidance by parents/guardians (1 = yes)
- Homeownership (1 = own a house)
- Household income (8 categories)
Analytical methods

**Factor mixture models** *(for identifying the patterns of financial capability)*

- Factor analysis
- Mixture model

**Regression models**

- Multinomial logistic regression *(demographics → financial capability patterns)*
- Linear and logistic regression *(financial capability → patterns economic well-being)*
Factor analysis

The model has reasonable fit

- $\chi^2 = 2652.06^{***}$
- RMSEA = 0.080 (0.078, 0.083)
- CFI = 0.94
- TLI = 0.92
- All the standardized factor loadings for each latent construct were > 0.5
Financial capability patterns
(based on factor mixture model)

Financial capability latent class: 4-Class model

- Financially striving (Class 1; 19.13%)
- Financially precarious (Class 2; 12.97%)
- Financially thriving (Class 3; 37.20%)
- Financially stable (Class 4; 30.70%)
## Factors of Financial Capability Patterns

<table>
<thead>
<tr>
<th>Variable</th>
<th>Striving (Class 1)</th>
<th>Precarious (Class 2)</th>
<th>Stable (Class 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( RRR )</td>
<td>( RRR )</td>
<td>( RRR )</td>
</tr>
<tr>
<td>Male (ref: female)</td>
<td>0.93</td>
<td>0.76**</td>
<td>0.79***</td>
</tr>
<tr>
<td>Age 65+ (ref: 55-64)</td>
<td>0.73***</td>
<td>0.56***</td>
<td>0.93**</td>
</tr>
<tr>
<td>Non-white (ref: white)</td>
<td>1.42***</td>
<td>1.81***</td>
<td>1.30***</td>
</tr>
<tr>
<td>Married (ref: not married)</td>
<td>1.07</td>
<td>1.31**</td>
<td>0.99</td>
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<tr>
<td>Education (ref: &lt; HS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some college</td>
<td>0.74***</td>
<td>0.56***</td>
<td>0.77***</td>
</tr>
<tr>
<td>College</td>
<td>0.51***</td>
<td>0.32***</td>
<td>0.64***</td>
</tr>
<tr>
<td>Numbers of children</td>
<td>1.34***</td>
<td>1.30***</td>
<td>1.07</td>
</tr>
<tr>
<td>Work (ref: not employed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-employed</td>
<td>0.78</td>
<td>0.50***</td>
<td>0.75*</td>
</tr>
<tr>
<td>Employed</td>
<td>0.52***</td>
<td>0.52***</td>
<td>0.90</td>
</tr>
<tr>
<td>Retired</td>
<td>0.46***</td>
<td>0.37***</td>
<td>0.70**</td>
</tr>
<tr>
<td>Income</td>
<td>0.52***</td>
<td>0.45***</td>
<td>0.82***</td>
</tr>
<tr>
<td>Homeownership</td>
<td>0.29***</td>
<td>0.22***</td>
<td>0.66***</td>
</tr>
<tr>
<td>Financial education</td>
<td>0.75**</td>
<td>0.46***</td>
<td>0.58***</td>
</tr>
<tr>
<td>Financial guidance</td>
<td>0.61***</td>
<td>0.37***</td>
<td>0.71***</td>
</tr>
</tbody>
</table>

*Note.* Reference group = Thriving (Class 3). Results were based on 20 imputed data sets.
Financial capability and economic well-being

- Financial precarious group has the worst economic outcome
- Financial striving group also has poor economic outcome
Conclusion
Program and practice

• Promote a **lifelong financial capability program:**
  – Creating opportunities to achieve meaningful “financial engagement” through financial coaching and guidance (knowledge ≠ behavior)
  – Increasing financial inclusion (i.e., financial access) to strengthen financial decision-making for *all ages* (accessible, appropriate, affordable, financially attractive, & easy to use & flexible)

• Address cumulative life course risks on financial capability and well-being
Research

• The results are not causal—need more longitudinal data
• Enhance the measures of financial capability
• Examining the mechanisms and the theoretical applicability of life course on both financial capability and financial well-being
  – Different life course models (critical period, accumulation, social mobility, and pathway)
  – Different stage of time
Thank you!

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Appendix: model selection for FMM

Latent class enumeration for factor mixture model (FMM)

Table 1. Fit Statistics of Financial Capability Latent Class for Factor Mixture Models (FMM)

<table>
<thead>
<tr>
<th>Fit statistics</th>
<th>2-Class</th>
<th>3-Class</th>
<th>4-Class</th>
<th>5-Class</th>
<th>6-Class</th>
<th>7-class</th>
</tr>
</thead>
<tbody>
<tr>
<td>GMM</td>
<td>2-Class</td>
<td>3-Class</td>
<td>4-Class</td>
<td>5-Class</td>
<td>6-Class</td>
<td>7-class</td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>-97825.863</td>
<td>-96795.006</td>
<td>-95768.262</td>
<td>-95471.141</td>
<td>-95225.245</td>
<td>-95076.689</td>
</tr>
<tr>
<td>BIC</td>
<td>196093.282</td>
<td>194068.363</td>
<td>192051.672</td>
<td>191494.227</td>
<td>191039.231</td>
<td>190778.915</td>
</tr>
<tr>
<td>SSABIC</td>
<td>195940.745</td>
<td>193903.115</td>
<td>191873.712</td>
<td>191303.556</td>
<td>190835.849</td>
<td>190562.821</td>
</tr>
<tr>
<td>Entropy</td>
<td>0.791</td>
<td>0.686</td>
<td>0.722</td>
<td>0.694</td>
<td>0.670</td>
<td>0.676</td>
</tr>
<tr>
<td>Adjusted LMRT (p)</td>
<td>13685.718***</td>
<td>2007.167***</td>
<td>1999.157***</td>
<td>578.519***</td>
<td>478.781***</td>
<td>289.252***</td>
</tr>
<tr>
<td>BLRT (p)</td>
<td>13809.695***</td>
<td>2061.715***</td>
<td>2053.488***</td>
<td>594.241***</td>
<td>491.792***</td>
<td>297.113***</td>
</tr>
</tbody>
</table>

Class size (%)

<table>
<thead>
<tr>
<th>Class</th>
<th>2-Class</th>
<th>3-Class</th>
<th>4-Class</th>
<th>5-Class</th>
<th>6-Class</th>
<th>7-class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1</td>
<td>3806 (38.49%)</td>
<td>2169 (21.94%)</td>
<td>1892 (19.13%)</td>
<td>827 (8.36%)</td>
<td>1376 (13.92%)</td>
<td>2227 (22.52%)</td>
</tr>
<tr>
<td>Class 2</td>
<td>6082 (61.51%)</td>
<td>3449 (34.88%)</td>
<td>1282 (12.97%)</td>
<td>2846 (28.78%)</td>
<td>619 (6.26%)</td>
<td>2729 (27.60%)</td>
</tr>
<tr>
<td>Class 3</td>
<td>4270 (43.18%)</td>
<td>3678 (37.20%)</td>
<td>3036 (30.70%)</td>
<td>2066 (20.89%)</td>
<td>2316 (23.42%)</td>
<td>1644 (16.63%)</td>
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<tr>
<td>Class 4</td>
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<tr>
<td>Class 5</td>
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<td>Class 6</td>
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<tr>
<td>Class 7</td>
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</tbody>
</table>

Note. BIC = Bayesian Information Criteria. SSABIC = Sample size adjusted BIC. LMRT = Lo-Mendell-Rubin Likelihood Ratio Test. BLRT = Bootstrap Likelihood Ratio Test. p = p value. ***p < .001