A LIFE-CYCLE PERSPECTIVE ON THE GREAT RECESSION’S EFFECTS ON THE MIDDLE CLASS

BY BRIAN BUCKS
(CONSUMER FINANCIAL PROTECTION BUREAU, US)

IARIW General conference
Dresden, 21-27 August 2016

Discussant: Jorrit Zwijnenburg
Main topic of the paper

- Still a lot of research into the immediate and longer-term consequences of the 2007-2009 ‘Great recession’ for families’ finances.
- Immediate and long-term impact may differ across generations.
- Goal of this paper: Examine the effects of the Great Recession on the finances of U.S. households, particularly the middle class households, through the lens of life-cycle patterns in wealth.
- ‘Middle class’ is determined on the basis of current wealth and expected wealth accumulation over the life cycle.
Methodology

• Focus is on ‘age-adjusted wealth’.
• Model household wealth as a flexible function of age and demographic characteristics.
• These profiles incorporate differences in education and race/ethnicity:

\[ h(w) = f(age, g, period) \]

• \( h(w) \): transformation of wealth
• \( g \): demographic subgroups
Methodology

• Two approaches to calculate age-adjusted wealth at the age of 50
  • Multiplicative: Assumption of proportional increases in wealth as households age (relative to the median).
    \[ w_{g}^{50} = w_{g}^{x} \times \left( \frac{medw_{g}^{50}}{medw_{g}^{x}} \right) \]
  • Additive: Assumption of an age effect that is additive in a household’s rank in the net worth distribution:
    \[ rank_{g}^{50} = rank_{g}^{x} + (medrank_{g}^{50} - medrank_{g}^{x}) \]

• Sample restricted to households whose head was between the ages of 28 and 72.
Results for life-cycle profiles of wealth

• Estimated median household wealth generally rises with age for all race/ethnicity-education groups and flattens out.

• The estimated age-wealth profiles shift upward with higher levels of educational attainment by the household head.

• For nearly all age and education levels, the estimated wealth profiles for households whose head is a white non-Hispanic lies above the wealth profiles for households whose head was either non-white or Hispanic.

⇒ Including these characteristics in the model improves the results.
Recalculating distributional results

Distribution of differences in percentile ranks in actual and age-adjusted wealth distributions

---

Percentile points

-20

Age

30

40

50

60

70

Median difference

Interquartile range of differences
Recalculating distributional results

- Both approaches lead to reordering of households.
- The effects are largest for younger households.
- The impact on the tercile ranks is rather limited.
- Looking at the middle class: 1/3 of households changes tercile, but these changes do not significantly alter the demographic characteristics of middle-class households.
## Impact of the 2007-2009 recession

### Percentage change in net worth

<table>
<thead>
<tr>
<th>Net worth tercile</th>
<th>Percentage change in net worth</th>
<th>Share with a decline in net worth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
<td>25th percentile</td>
</tr>
<tr>
<td><strong>Bottom third</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual net worth</td>
<td>-1.7</td>
<td></td>
</tr>
<tr>
<td>Age-adj.: Multiplicative</td>
<td>-2.3</td>
<td></td>
</tr>
<tr>
<td>Age-adj.: Additive</td>
<td>-3.3</td>
<td></td>
</tr>
<tr>
<td><strong>Middle third</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual net worth</td>
<td>-17.4</td>
<td></td>
</tr>
<tr>
<td>Age-adj.: Multiplicative</td>
<td>-15.5</td>
<td></td>
</tr>
<tr>
<td>Age-adj.: Additive</td>
<td>-15.8</td>
<td></td>
</tr>
<tr>
<td><strong>Top third</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual net worth</td>
<td>-21.0</td>
<td></td>
</tr>
<tr>
<td>Age-adj.: Multiplicative</td>
<td>-22.6</td>
<td></td>
</tr>
<tr>
<td>Age-adj.: Additive</td>
<td>-22.3</td>
<td></td>
</tr>
</tbody>
</table>

2007–09 SCF panel households with a head aged 28 to 72
Sources of the changes

<table>
<thead>
<tr>
<th>Percentage change</th>
<th>Median</th>
<th>25&lt;sup&gt;th&lt;/sup&gt; percentile</th>
<th>75&lt;sup&gt;th&lt;/sup&gt; percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Change in assets as a share of 2007 net worth</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual net worth</td>
<td>-17.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age-adjusted: Multiplicative</td>
<td>-16.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age-adjusted: Additive</td>
<td>-16.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Change in debt as a share of 2007 net worth</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual net worth</td>
<td>-0.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age-adjusted: Multiplicative</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age-adjusted: Additive</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Change in home equity as a share of 2007 assets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual net worth</td>
<td>-3.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age-adjusted: Multiplicative</td>
<td>-2.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age-adjusted: Additive</td>
<td>-2.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Changes in net worth mainly driven by changes in assets

2007–09 SCF panel households with a head aged 28 to 72
Effects of the 2007-2009 recession

• Adjusting for life-cycle patterns in wealth has almost no effect on conclusions about how the middle class fared over the Great Recession.

• Estimates of the magnitude and distribution of changes in wealth, assets, and debt are essentially unchanged when using age-adjusted wealth rather than actual wealth to define household’s socioeconomic class.

• Possible reasons:
  • Other characteristics still play an important role in ranking.
  • Re-ordering shifts households that suffered similar effects of the crisis.
• I very much like the approach to look at ‘equivalized’ wealth measures to have a more balanced insight in distributional results.

• However, such an approach necessarily has to rely on several assumptions, especially in forecasting wealth trends. What is the best way to ‘estimate’ wealth at 50? Directly? Via a breakdown in assets and liabilities? Or looking at the various underlying components (income, inheritances, capital gains et cetera)?

• A breakdown into wealth groups may be interesting (maybe a more granular breakdown will show more in-depth effects), but looking at other socio-demographic groups (or cross-sections) may also provide relevant insights.
Some questions:

• Do the current models require similar wealth distributions for each age group in combination with its socio-demographic characteristics? What if shapes change over time?

• In my view, there are three ways of looking at the impact of the crisis:
  1. Look at change in wealth at current age.
  2. Look at change in estimated wealth at 50 on the basis of the model (current focus of the paper).
  3. Look at change in estimated wealth at 50, also looking at impact of crisis on wealth trends for various groups (focusing on various determinants).

What is your opinion on this third option?

• Would a further breakdown (for example, into socio-demographic groups within the terciles) lead to other insights?
Thank you for your attention!