

## Discussion of

# “Navigating Complex Financial Decisions at Retirement: Evidence from Annuity Choices in Public Sector Pensions”

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# Overview

Two broad research questions:

1. How do married retirees choose among various public sector annuity options:
  - Single life with or without SS leveling
  - Joint & Survivor with 50% or 100% survivor benefit and with or without benefit “popup”
2. How are annuity choices between 2009 and 2014 correlated with later measures of retiree well-being?

Empirical strategy:

Analyze administrative and survey data on 3,952 married retirees who respond to survey in 2015 and subsample of 2,311 who respond to follow-up survey in 2017

# Context

- This paper is part of a broad, interesting research agenda by these authors (and Melinda Morrill)
- Paper is distinct from large literature on lump sum versus annuity... *in terms of both focus and richness of data*
  - E.g., Chalmers & Reuter (2012), Clark, Morrill, Vanderweide (2014) lack survey data on family structure and well-being
- Related to forthcoming paper on demand for Social Security leveling by those choosing single life annuity
  - *Leveling is also associated with lower measures of well-being*
- Related to work by Brown, Poterba, and Richardson on demand for various retirement benefit options via TIAA

# Main Findings

- **43.6%** of married retirees choose Joint over Single
- Males are more likely to choose Joint (**61.3%** vs. **34.7%**), especially when spouse does not have own pension
- Demand for Joint decreasing in retiree's life expectancy but increasing in spouse's life expectancy...
- Also higher when retiree successfully answers questions on compound interest and inflation
- Measures of impatience predict demand for SS Leveling
- Measures of retirement income well-being trend down between 2015 and 2017 surveys, and are lowest for those choosing SS Leveling

# Hypothetical Choice

Option	Baseline Benefit	Spouse Dies First	Retiree Dies First	Post 62 (if different)
Single ("Max")	\$2000	\$2000	\$0	
Single w/ Leveling	\$2996	\$2996	\$0	\$1796
Joint 100%	\$1813	\$1813	\$1813	
Joint 100% w/ Popup	\$1785	\$2000	\$1813	
Joint 50%	\$1902	\$1902	\$951	
Joint 50% w/ Popup	\$1887	\$2000	\$944	

“Plan actuaries set the terms of all annuity options so that they are considered present value neutral to the system”

What happens when assumed rate drops from 7.50% to 7.25%? Lower rate increases cost of future payments to the system.

While PV of (fixed) \$2000 Single benefit rises slightly, present value neutral Joint 100% benefit should fall from **\$1,813** to **\$1,807** and Leveling benefit should fall from **\$2,996** to **\$2,961**. **These are economically insignificant.**

# Comment #1: Estimation

- Authors estimate annuity type using nested logit
- Factor = Initial benefit for annuity type  $\div$  initial benefit for Max
  - $\text{Factor}_{\text{Leveling}} > 1$
  - $\text{Factor}_{\text{Max}} = 1$
  - $\text{Factor}_{\text{Joint 100\%}} < \text{Factor}_{\text{Joint 50\%}} < 1$
- Factor “is the only alternative-specific covariate in the model, ... which ensures identification of the nested logit model”
- It is not a comparison of “money’s worth” of annuity types because it ignores variation in  $E[\text{number of payments}]$  and in risk-free rate
- Rather, it is related to “duration,” where higher values may appeal to more financially constrained and/or impatient households
  - I would interact Factor with measures of literacy and impatience

# Comment #1 (*cont.*)

Authors include measures of difference in ages of retiree and spouse and subjective measures of life expectancy

- Relative ages should be “priced” by pension system, on average
- What matters from household perspective is single and joint life expectancy of retiree and spouse relative to system averages
- While I expected “Life Exp 80+” to be more informative of above-average life expectancy for males, it does not reduce demand for Joint to the same extent as for females

Robustness:

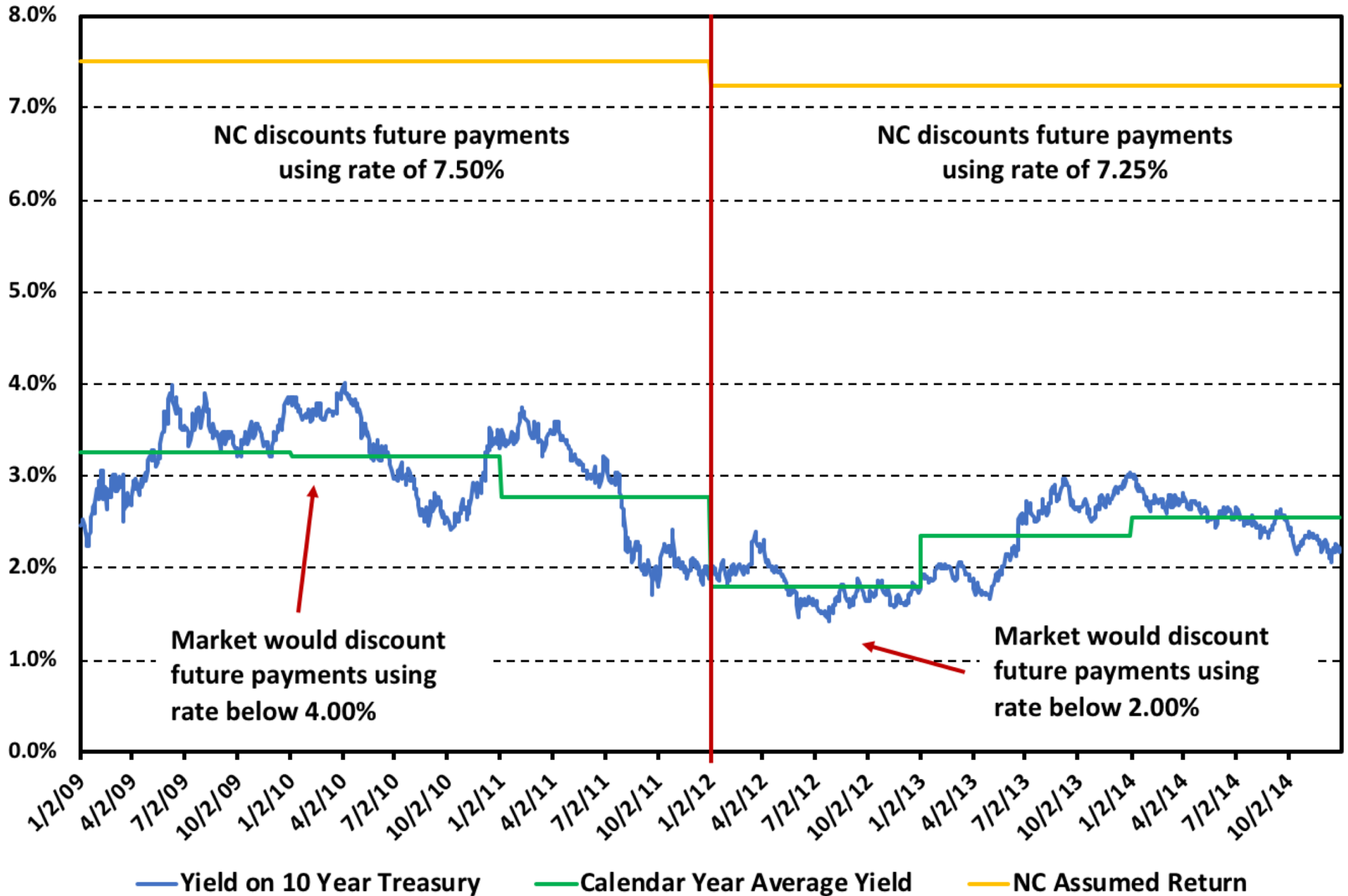
- Estimate separate specifications depending on whether “spouse has pension”?
- Begs question: Optimal from household perspective to choose two “Max” annuities or two “Joint” annuities?

# Comment #2: Present Values

- Pension system uses discount rates above 7.00% when market rates are uniformly below 4.00% → Annuities are better than actuarially fair
- However, given how benefits are calculated, there is significant time-series variation in relative PVs of Joint and Max
- Consider earlier example:
  - $r = 4.00\%$ :  $PV(\text{Joint } 100\%) - PV(\text{Max}) = \mathbf{\$18,771}$  (↑ 5.8%)
  - $r = 3.00\%$ :  $PV(\text{Joint } 100\%) - PV(\text{Max}) = \mathbf{\$28,282}$  (↑ 7.9%)
  - $r = 2.00\%$ :  $PV(\text{Joint } 100\%) - PV(\text{Max}) = \mathbf{\$40,681}$  (↑ 10.4%)
- Not all of this variation is soaked up by year-of-choice fixed effects (Next slide reveals variation of  $r$  around calendar year averages)
- Figure 2 suggests higher quarterly demand for Joint after 2012, when average  $r$  is lower. What is the correlation with  $r$ ? What is the correlation for subsample with “high” financial literacy?



# Yield on 10 Year Treasury Bonds, Jan 2009 - Dec 2014



# Comment #3: Well-Being

- Measures of financial well-being are huge comparative advantage
- Fact that well-being trends down, on average, regardless of annuity choice is striking
  - Probably doesn't reflect sample selection... unless retirees who choose Joint disproportionately die off between 2015-2017
  - Similar trend for those choosing a lump sum?
- Interesting that those choosing SS Leveling score lowest on "Saved Enough" and "Confident" in 2015 and 2017
  - Does this tell us that SS Leveling was a bad choice (as calls to retirement system by confused retirees would suggest)... or a reasonable choice given household's financial constraints when retiring?

## Comment #3 (*cont.*)

- Insurance purchases can give rise to ex post regret
  - “I can’t believe that I paid for health insurance that I didn’t need”
  - If I choose Joint 100% (without popup) and my spouse dies first, I might ex post regret an annuity choice that was ex ante optimal
- In addition to modeling level of well-being in 2017, authors could model changes in well-being
  - Increases in self-assessed financial well-being when retiree chooses Single or Joint with popup and spouse wife dies first?
  - Decreases in self-assessed financial well-being when retiree chooses Joint without popup and spouse dies first?
  - Are level and change in well-being higher for retirees who choose Joint when  $r$  is lower? (Probably not.)

# Final Comments

- I would like to know more about changes in survey responses between 2015 and 2017:
  - Do you observe changes in financial literacy? Impatience? Risk-aversion? Likelihood of “coming up with \$2000 if an unexpected need arose”? Likelihood of successfully recalling annuity choice?
  - Are any of these changes predictive of declines in perceived household well-being?
- What if you estimate ordered logit based on “duration” of payments:
  - $\text{Leveled} < \text{Max} < \text{Joint } 50\% < \text{Joint } 100\%$
- Because this paper is part of a broader research agenda, I encourage authors to highlight the incremental contribution...
  - ... especially w.r.t. forthcoming article on SS leveling