

Retirement Income: Research in Practice

Designing an income solution



- **What do “not running out of money” or “safe income” mean?**
 - Annuitize everything?
 - Why do managed payout funds not satisfy?
 - Dybvig [1995]: “Dusenberry's Ratcheting of Consumption: Optimal Dynamic Consumption and Investment Given Intolerance for any Decline in Standard of Living”
- **Use of lifetime income guarantee**
 - Scott, Watson, Hu [2010]: “What Makes a Better Annuity?”
 - Hu and Scott [2007]: “Behavioral Obstacles in the Annuity Market”
 - Scott [2008]: “The Longevity Annuity: An Annuity for Everyone?”

} Insure late-life spending
- **Desire for liquidity**
- **Desire for potential upside**
- **Desire for bequest**

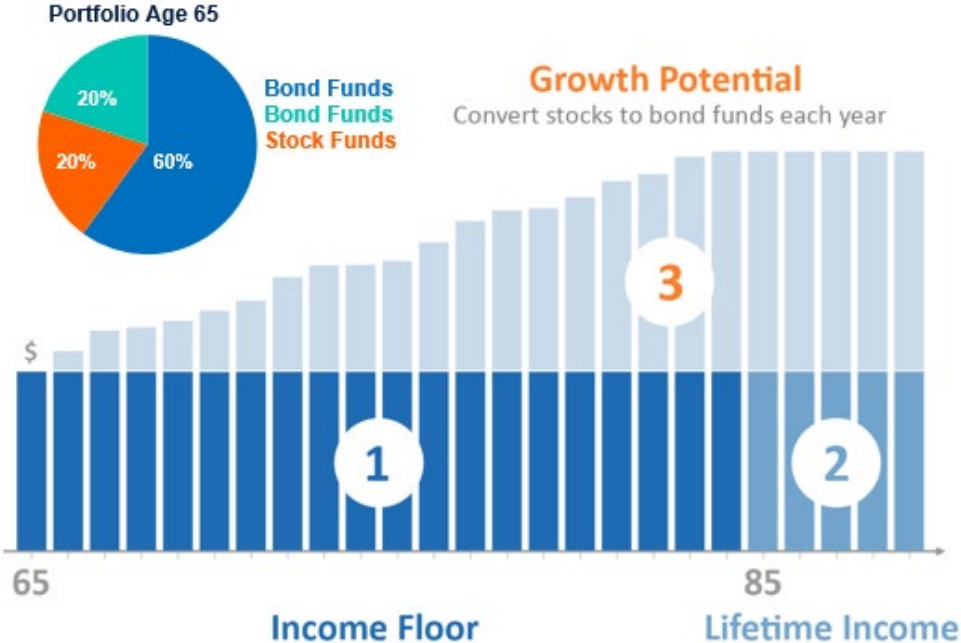
All validated with participant research

Income+ design led by research



Managing for income

- Protect from market, rate changes
- Potential growth opportunity
- Flexible cash flows
- Payouts for life¹



For illustrative purposes only.

¹Lifetime income guarantee requires out-of-plan annuity purchase. Issuer minimum req

Social Security



- **When to claim?**

- Shoven & Slavov [2012]: “The Decision to Delay Social Security Benefits: Theory and Evidence”
- No simple rule of thumb; most households leaving a lot on the table
- BBA 2015 rule changes

- **Proprietary Social Security optimization engine**

- Personalized recommendations for claiming strategies
- Singles, couples with different ages & earned benefits
- Explicitly model longevity uncertainty
- Report improvement in expected lifetime benefits

What's next?



- **What decisions do people need the most help with?**
- **What are the biggest mistakes retirees make?**

Frontier research (1)



■ Pension distribution choice

- Bronshtein, Scott, Shoven, Slavov [2016]: “Leaving Big Money on the Table: Arbitrage Opportunities in Delaying Social Security”

■ Is optimal retirement spending flat?

- Hurd and Rohwedder [2011]: “Economic Preparation for Retirement”
- Ebrahimi [2019]: “Spending Patterns of Older Households” and “How Do Retirees’ Spending Patterns Change Over Time?”
- Scott, Shoven, Slavov, Watson [in progress]: “Can Low Retirement Saving be Rationalized?”

■ Optimal portfolios for taxable and tax-advantaged accounts

■ Tax-efficient drawdowns

- Sumutka, Sumutka, Coopersmith [2012]: “Tax-Efficient Retirement Withdrawal Planning Using a Comprehensive Tax Model”
- Cook, Meyer, Reichenstein [2015]: “Tax-Efficient Withdrawal Strategies”

Frontier research (2)



■ Optimal long-term care planning

- Brown and Finkelstein [2007]: “Why is the Market for Long-Term Care Insurance So Small?”
- Davidoff [2008]: “Illiquid Housing as Self-Insurance: The Case of Long-Term Care”
- Zhou-Richter, Browne, Grundl [2010]: “Don’t They Care? Or, Are They Just Unaware? Risk Perception and the Demand for Long-Term Care Insurance”
- Koijen, Van Nieuwerburgh, Yogo [2016]: “Health and Mortality Delta: Assessing the Welfare Cost of Household Insurance Choice”
- Ameriks, Briggs, Caplin, Shapiro, Tonetti [2018]: “The Long-Term-Care Insurance Puzzle: Modeling and Measurement”