

Payout Solutions for Funded Pensions

Raimond Maurer

(EIOPA-Meeting, February 2017)

- Rethinking Retirement Income Strategies – How Can We Secure Better Outcomes for Future Retirees? (Maurer/Somova, <http://www.efama.org/>)
- Welfare implications of product choice regulation during the payout phase of funded pensions (Horneff/Kaschützke, Maurer/Rogalla 2014, JoPEF)
- Putting the pension back in 401(k) plans: optimal versus default longevity income annuities (Horneff/Maurer/Mitchell 2016)

Motivation

With \$5 trillions invested in defined contribution pension plans, “many retirees face the daunting task of determining an appropriate **spending and investment strategy** for their accumulated savings”. *Prof. William Sharpe 2007 Meeting of the Wharton Pension Research Council.*

What are basic risk categories?

- Investment risk, longevity risk, inflation risk, credit risk

Who stands to help retirees managing their money in retirement?

- Life insurers offering payout life annuities (**pooled solutions**);
- Asset managers offering systematic drawdown plans (**non-pooled solutions**);
- **Integrated products** using both

What is the role of the state as a regulator?

- Regulate product quality and product choice (mandatory annuitization?)
- Ensure steady tax income

Basic types of payout solutions for funded pensions

➤ Pooled solutions (life annuities):

- **Idea:** Transfer retirement assets into a lifelong income stream
- **Types:** Fixed-, participating-, investment linked-, immediate-, deferred annuity
- Pro: (Guaranteed) lifelong income and “survival credit”
- Con: Low flexibility & liquidity, no bequest & control over retirement assets, credit risk

➤ Non-pooled solutions (drawdown plans):

- **Idea:** Keep retirement assets in mutual funds and make periodic withdrawals
- **Types:** [Asset Allocation](#) (stocks, bonds, balanced), [Payout rules:](#) 4% p.a., 1/LE)
- Pro: High liquidity & flexibility, bequest and control over assets
- Con: No “survival credit”; could (but not must) be subject to longevity-/investment risk

➤ Integrated Solutions (drawdown plan + annuities)

- Partial annuitization at retirement
- Dynamic (gradual) annuitization
- Deferred annuitization ([Longevity Income Annuity](#)) at advanced age (e.g 85) are cheap and effective instruments to protect against longevity risk; [US 401\(k\) plans](#); [German Riester plans](#)

➤ Lump sum payments

Optimal retirement strategy – integrated solutions can offer higher benefits while having efficient risk controls

- **Economic research** (*household finance*) on optimal retirement strategies shows the importance to consider the interaction between life annuities and drawdowns (including equity stock positions) during whole retirement period.
- Determinants of optimal payout strategies: Pre-existing lifelong retirement income (i.e. state pension), accumulated funds, health & family status.
- **Regulation** of product choice:
 - *Economic costs* of mandatory (full) annuitization could be very high (low interest rates; preferences, individual needs)
 - Allowing longevity income annuities (e.g. at age 85) as default solutions
- It is difficult for the average retiree to implement an optimal retirement strategy without *professional help (advice and/or cost-efficient integrated products)*
- **Default solutions** (opting out) are important and welfare enhancing

Next steps

- Part 1: Characteristics of payout solutions
- Part 2: Economic modelling of optimal payout solutions and international experiences
- Part 3: Implications for products (default options; regulation; advice)

Some literature

- “Asset Allocation and Location over the Life Cycle with Survival-Contingent Payouts”, (Horneff/Maurer/Mitchell/Stamos) in: Journal of Banking and Finance 33, 2009, 1688-1699
- “Optimal Gradual Annuitization: Quantifying the Costs of Switching to Annuities”, (Horneff/Maurer/Stamos), in: Journal of Risk and Insurance 75, 2008, 1019-1038.
- “Life-Cycle Asset Allocation with Annuity Markets” (Horneff/Maurer/Stamos), in: Journal of Economic Dynamics and Control 32, 2008, 3590-3612
- “Following the Rules: Integrating Asset Allocation and Annuitization in Retirement Portfolios” (Horneff/Maurer/Mitchell/Dus), in: Insurance: Mathematics and Economics 42, 2008, S. 396-408
- “Deferred Annuities and Dynamic Portfolio Choice (Horneff/Maurer/Rogalla) in: Journal of Banking and Finance 34, 2010, 2652–2664”
- “Variable Payout Annuities and Dynamic Portfolio Choice in Retirement (Horneff/Maurer/Mitchell/Stamos) in: Journal of Pension Economics and Finance 9, 2010, 163-183.
- “Optimal Portfolio Choice over the Life-Cycle with Flexible Work, Endogenous Retirement, and Lifetime Payouts” (Chai/Horneff/Maurer/Mitchell) in: Review of Finance 15, 2011, 875-907.
- “Optimal Portfolio Choice with Annuities and Life Insurance for Retired Couples”(Hubener/Maurer/Rogalla) in: Review of Finance 18, 2014, 147-188.
- “Lifecycle Portfolio Choice With Systematic Longevity Risk and Variable Investment-linked Deferred Annuities” (Maurer/Mitchell/Rogalla /Kartashov) in: Journal of Risk and Insurance 80, 2013, 649-676 (also NBER WP 17505)
- “Participating Payout Life Annuities: Lessons from Germany” (Maurer/Rogalla/Siegelin) in: ASTIN-Bulletin 43, 2/2013, 159-197.
- “Welfare Implications of Product Choice Regulation during the Payout Phase of Funded Pensions (Horneff/Kaschützke/Maurer/Rogalla) in: Journal of Pension Economics and Finance 13, 2014, 272-296.
- “How Family Status and Social Security Claiming Options Shape Optimal Life Cycle Portfolios” (Hubener/Maurer/Mitchell), in: Review of Financial Studies 29, 2016, 937-978
- “Optimal Life Cycle Portfolio Choice with Variable Annuities Offering Liquidity and Investment Downside Protection (Horneff/Maurer/Mitchell/Rogalla), in: Insurance: Mathematics and Economics 63, 2015, 91-107 (also NBER-WP 19206)
- Will They Take the Money and Work? An Empirical Analysis of People's Willingness to Delay Claiming Social Security Benefits for a Lump Sum. (Maurer/Mitchell/Rogalla/Schimetschek), forthcoming Journal of Risk and Insurance
- Accounting and Actuarial Smoothing of Retirement Payouts in Participating Life Annuities, (Maurer/Mitchell/Rogalla/Siegelin), Insurance: Mathematics and Economics 71, 2016, 268-283_(also PRC-WP 2014-02)