

[Working Papers](#)

Putting the Pension Back in 401(k) Plans: Optimal versus Default Longevity Income Annuities

Vanya Horneff, Raimond Maurer & Olivia S. Mitchell

SHARE      

WORKING PAPER 22717

DOI 10.3386/w22717

ISSUE DATE October 2016

Most defined contribution pension plans pay benefits as lump sums, yet the US Treasury has recently encouraged firms to protect retirees from outliving their assets by converting a portion of their plan balances into longevity income annuities (LIA). These are deferred annuities which initiate payouts not later than age 85 and continue for life, and they provide an effective way to hedge systematic (individual) longevity risk for a relatively low price. Using a life cycle portfolio framework, we measure the welfare improvements from including LIAs in the menu of plan payout choices, accounting for mortality heterogeneity by education and sex. We find that introducing a longevity income annuity to the plan menu is attractive for most DC plan participants who optimally commit 8-15% of their plan balances at age 65 to a LIA that starts paying out at age 85. Optimal annuitization boosts welfare by 5-20% of average retirement plan accruals at age 66 (assuming average mortality rates), compared to not having access to the LIA. We also compare the optimal LIA allocation versus two default options that plan sponsors could implement. We

conclude that an approach where a fixed fraction over a dollar threshold is invested in LIAs will be preferred by most to the status quo, while enhancing welfare for the majority of workers.

Download a PDF

[Information on access](#)

Acknowledgements and Disclosures



Citation and Citation Data



Published Versions

Vanya Horneff & Raimond Maurer & Olivia S. Mitchell, 2020. "[Putting the Pension Back in 401\(k\) Retirement Plans: Optimal versus Default Deferred Longevity Income Annuities](#)," Journal of Banking & Finance, .

Related

TOPICS

Microeconomics
Households and Firms
Behavioral Economics
Financial Economics
Portfolio Selection and Asset Pricing
Financial Institutions

PROGRAMS

Economics of Aging
Public Economics

WORKING GROUPS

Behavioral Finance
Household Finance

More from the NBER

In addition to [working papers](#), the NBER disseminates affiliates' latest findings through a range of free periodicals — the [NBER Reporter](#), the [NBER Digest](#), the [Bulletin on Health](#), and the [Bulletin on Entrepreneurship](#) — as well as online [conference reports](#), [video lectures](#), and [interviews](#).



Martin Feldstein Lecture, Summer Institute 2025 **The Fiscal Future**

N. Gregory Mankiw, Harvard University and NBER
July 10, 2025

2025, 17th Annual Feldstein Lecture, N. Gregory Mankiw, "The Fiscal Future"

FELDSTEIN LECTURE

PRESENTER: [N. GREGORY MANKIW](#)

N. Gregory Mankiw, Robert M. Beren Professor of Economics at Harvard University, presented the 2025 Martin Feldstein...



Methods Lecture, Summer Institute 2025
**Uncovering Causal Mechanisms:
Mediation Analysis and
Surrogate Indices**

Raj Chetty, Harvard University and NBER
Kosuke Imai, Harvard University
July 24, 2025

**2025, Methods Lecture, Raj Chetty and Kosuke Imai, "Uncovering Causal Mechanisms:
Mediation Analysis and Surrogate Indices"**

METHODS LECTURES

PRESENTERS: [RAJ CHETTY](#) & [KOSUKE IMAI](#)

SlidesBackground materials on mediationImai, Kosuke, Dustin Tingley, and Teppei Yamamoto. (2013). "Experimental Designs..."



International Trade and Macroeconomics, Summer Institute 2025

Panel on The Future of the Global Economy

Oleg Itskhoki, Harvard University and NBER
Paul Krugman, City University of New York and NBER
Linda Tesar, University of Michigan and NBER
July 8, 2025

2025, International Trade and Macroeconomics, "Panel on The Future of the Global Economy"

PRESENTERS: [OLEG ITSKHOKI](#), [PAUL R. KRUGMAN](#) & [LINDA TESAR](#)

Supported by the Alfred P. Sloan Foundation grant #G-2023-19633, the Lynde and Harry Bradley Foundation grant #20251294...

National Bureau of Economic Research

Contact Us

1050 Massachusetts Avenue
Cambridge, MA 02138
617-868-3900
info@nber.org
webaccessibility@nber.org

HOMEPAGE

[Accessibility Policy](#)

[Diversity Policy](#)

[Privacy Policy](#)

FOLLOW

