

[< Home](#)

Reverse Engineering the Yield Curve

David K. Backus & Stanley E. Zin

SHARE   

WORKING PAPER 4676

DOI 10.3386/w4676

ISSUE DATE March 1994

Prices of riskfree bonds in any arbitrage-free environment are governed by a pricing kernel: given a kernel, we can compute prices of bonds of any maturity we like. We use observed prices of multi-period bonds to estimate, in a log-linear theoretical setting, the pricing kernel that gave rise to them. The high-order dynamics of our estimated kernel help to explain why first-order, one-factor models of the term structure have had difficulty reconciling the shape of the yield curve with the persistence of the short rate. We use the estimated kernel to provide a new perspective on Hansen-Jagannathan bounds, the price of risk, and the pricing of bond options and futures.

[Download a PDF](#)

[Information on access](#)

Acknowledgements and Disclosures



Download Citation



Related

TOPICS

[Macroeconomics](#)

[Money and Interest Rates](#)

[Financial Economics](#)

[Portfolio Selection and Asset Pricing](#)

PROGRAMS

[Asset Pricing](#)

More from 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 Retirement and Disability](#), the [Bulletin on Health](#), and the [Bulletin on Entrepreneurship](#) — as well as online [conference reports](#), [video lectures](#), and [interviews](#).



16th Annual Martin Feldstein Lecture:

Lessons for Economists from the Pandemic

Cecilia E. Rouse, The Brookings Institution
and Princeton University
July 22, 2024

2024, 16th Annual Feldstein Lecture, Cecilia E. Rouse, "Lessons for Economists from the Pandemic"

FELDSTEIN LECTURE

PRESENTER: [CECILIA E. ROUSE](#)

Cecilia Rouse, president of the Brookings Institution and a professor at Princeton University, who chaired the Council...



Methods Lectures, Summer Institute 2024:

Analysis and Design of Multi-Armed Bandit Experiments and Policy Learning

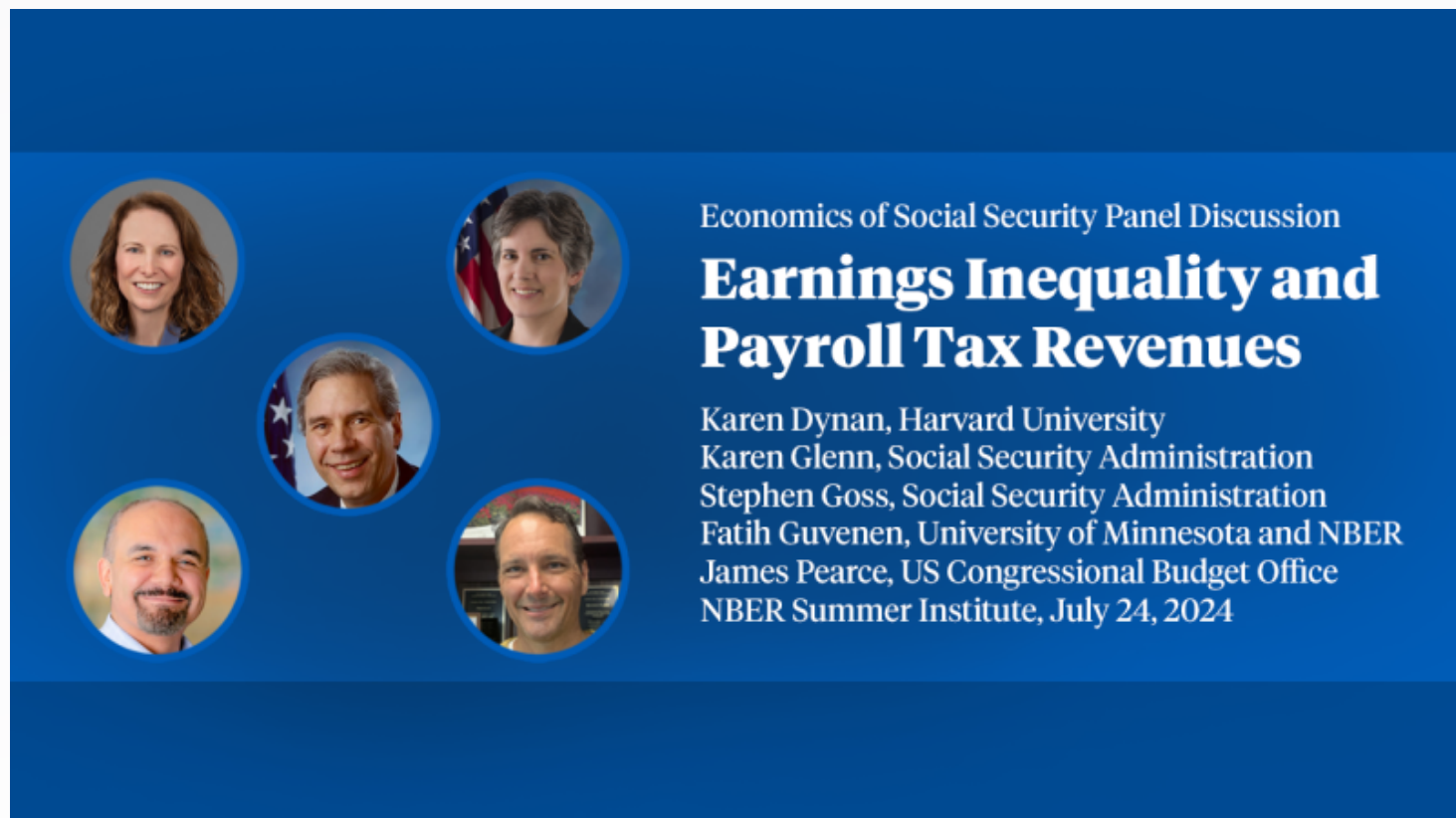
Susan Athey, Stanford University and NBER
July 25, 2024

2024 Methods Lecture, Susan Athey, "Analysis and Design of Multi-Armed Bandit Experiments and Policy Learning"

METHODS LECTURES

PRESENTER: [SUSAN ATHEY](#)

Background Materials:backgroundAthey, Susan, Undral Byambadalai, Vitor Hadad, Sanath Kumar Krishnamurthy, Weiwen Leung...



Economics of Social Security Panel Discussion
Earnings Inequality and Payroll Tax Revenues
Karen Dynan, Harvard University
Karen Glenn, Social Security Administration
Stephen Goss, Social Security Administration
Fatih Guvenen, University of Minnesota and NBER
James Pearce, US Congressional Budget Office
NBER Summer Institute, July 24, 2024

2024, Economics of Social Security Panel, "Earnings Inequality and Payroll Tax Revenues"

PANEL DISCUSSION

PRESENTERS: [KAREN DYNAN](#), KAREN GLENN, STEPHEN GOSS, [FATIH GUVENEN](#) & [JAMES PEARCE](#)

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



© 2024 NATIONAL BUREAU OF ECONOMIC RESEARCH. ALL RIGHTS RESERVED.