

[Working Papers](#)

Asset Pricing and Optimal Portfolio Choice in the Presence of Illiquid Durable Consumption Goods

Sanford J. Grossman & Guy Laroque

SHARE   

WORKING PAPER 2369

DOI 10.3386/w2369

ISSUE DATE August 1987

We analyze a model of optimal consumption and portfolio selection in which consumption services are generated by holding a durable good. The durable good is illiquid in that a transaction cost must be paid when the good is sold. It is shown that optimal consumption is not a smooth function of wealth; it is optimal for the consumer to wait until a large change in wealth occurs before adjusting his consumption. As a consequence, the consumption based capital asset pricing model fails to hold. Nevertheless, it is shown that the standard, one factor, market portfolio based capital asset pricing model does hold in this environment. It is shown that the optimal durable level is characterized by three numbers (not random variables), say x , y , and z (where $x < y < z$). The consumer views the ratio of consumption to wealth (c/W) as his state variable. If this ratio is between x and z , then he does not sell the durable. If c/W is less than x or greater than z , then he

sells his durable and buys a new durable of size S so that $S/W = y$. Thus y is his "target" level of c/W . If the stock market moves up enough so that c/W falls below x , then he sells his small durable to buy a larger durable. However, there will be many changes in the value of his wealth for which c/W stays between x and z , and thus consumption does not

value of his wealth for which c/w stays between x and z , and thus consumption does not change. Numerical simulations show that small transactions costs can make consumption changes occur very infrequently. Further, the effect of transactions costs on the demand for risky assets is substantial.

Download a PDF

[Information on access](#)

Acknowledgements and Disclosures 

Download Citation 

Published Versions

[Econometrica](#), vol. 58, no. 1, January 1990, pp. 25-51. citation courtesy of [RePEc](#)

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

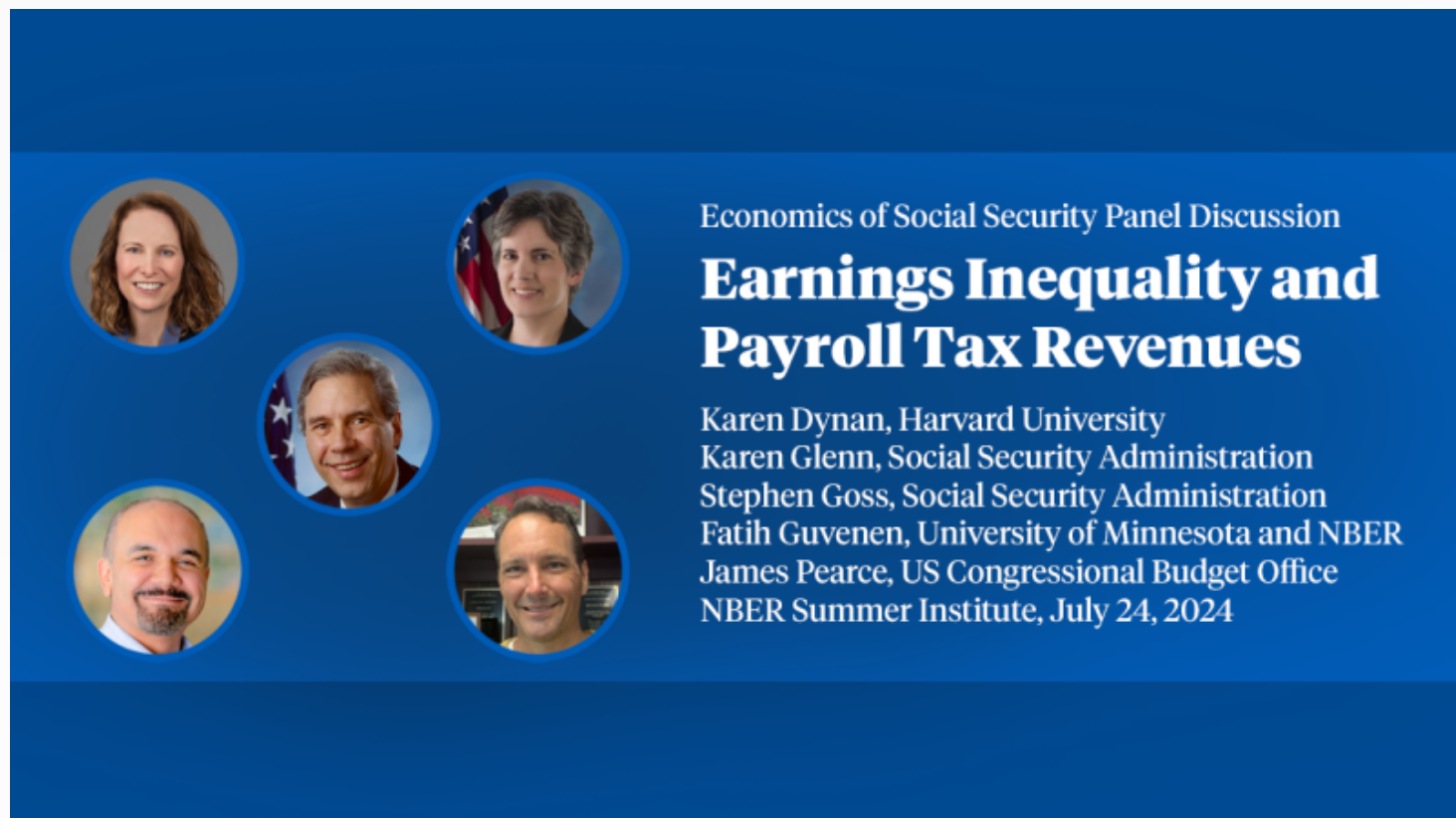
Susan Athey, Stanford University and NBER
July 25, 2024

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.