

The American Economic Review

ARTICLES

MAURICIO ULATE

Going Negative at the Zero Lower Bound: The Effects of Negative Nominal Interest Rates

THORSTEN ROGALL

Mobilizing the Masses for Genocide

JESSE PERLA, CHRISTOPHER TONETTI, AND MICHAEL E. WAUGH

Equilibrium Technology Diffusion, Trade, and Growth

CHRISTOPHER AVERY AND PARAG A. PATHAK

The Distributional Consequences of Public School Choice

FELIX J. BIERBRAUER, PIERRE C. BOYER, AND ANDREAS PEICHL

Politically Feasible Reforms of Nonlinear Tax Systems

BRIAN BAUGH, ITZHAK BEN-DAVID, HOONSUK PARK, AND JONATHAN A. PARKER

Asymmetric Consumption Smoothing

UFUK AKCIGIT, HARUN ALP, AND MICHAEL PETERS

Lack of Selection and Limits to Delegation: Firm Dynamics in Developing Countries

JOSHUA SCHWARTZSTEIN AND ADI SUNDERAM

Using Models to Persuade

ANDREAS I. MUELLER, JOHANNES SPINNEWIJN, AND GIORGIO TOPA

**Job Seekers' Perceptions and Employment Prospects: Heterogeneity, Duration
Dependence, and Bias**

THOMAS WINBERRY

Lumpy Investment, Business Cycles, and Stimulus Policy

JANUARY 2021

THE AMERICAN ECONOMIC ASSOCIATION

Founded in 1885

- Typeset by American Economic Association Publications, Pittsburgh, Pennsylvania, USA

- Printed at LSC Communications, Owensville, Missouri, USA

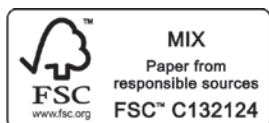
- Registered in the US Patent and Trademark Office®

- Copyright© 2021 by the American Economic Association. Permission to make digital or hard copies of part or all of American Economic Association publications for personal or classroom use is granted without fee provided that copies are not distributed for profit or direct commercial advantage and that copies show this notice on the first page or initial screen of a display along with the full citation, including the name of the author. Copyrights for components of this work owned by others than AEA must be honored. Abstracting with credit is permitted. The author has the right to republish, post on servers, redistribute to lists and use any component of this work in other works. For others to do so requires prior specific permission and/or a fee. Permissions may be requested from the American Economic Association, 2014 Broadway, Suite 305, Nashville, TN 37203.

- No responsibility for the views expressed by authors in this *Review* is assumed by the editors or the publishers, The American Economic Association.

Correspondence relating to advertising, business matters, permissions to quote, back issues, subscriptions, and changes of address, should be sent to the American Economic Association, 2014 Broadway, Suite 305, Nashville, TN 37203. Change of address notice must be received at least six (6) weeks prior to the publication month. A membership or subscription paid twice is automatically extended for an additional year unless otherwise requested.

THE AMERICAN ECONOMIC REVIEW (ISSN 0002-8282), January 2021, Vol. 111, No. 1. The *AER* is published 12 times a year by the American Economic Association, 2014 Broadway, Suite 305, Nashville, TN 37203. Annual fees for regular membership are: \$24.00, \$34.00, or \$44.00, depending on income; for an additional fee, you can receive this journal, or any of the Association's journals, in print. Further information on subscriptions and the American Economic Association can be found at www.vanderbilt.edu/AEA/. Periodical postage paid at Nashville, TN and at additional mailing offices. POSTMASTER: Send address changes to *The American Economic Review*, 2014 Broadway, Suite 305, Nashville, TN 37203. Printed in the USA.



EXECUTIVE COMMITTEE

Elected Officers and Members

President

DAVID CARD, University of California, Berkeley

President-elect

CHRISTINA D. ROMER, University of California, Berkeley

Vice Presidents

KERWIN KOFI CHARLES, Yale University

SHELLY LUNDBERG, University of California, Santa Barbara

Members

MARTHA BAILEY, University of California, Los Angeles

SUSANTO BASU, Boston College

SANDRA E. BLACK, Columbia University

LISA D. COOK, Michigan State University

MELISSA S. KEARNEY, University of Maryland

EMI NAKAMURA, University of California, Berkeley

Ex Officio Members

BEN S. BERNANKE, The Brookings Institution

JANET YELLEN, The Brookings Institution

Appointed Members

Editor, The American Economic Review

ESTHER DUFLO, Massachusetts Institute of Technology

Editor, The American Economic Review: Insights

AMY FINKELSTEIN, Massachusetts Institute of Technology

Editor, The Journal of Economic Literature

STEVEN N. DURLAUF, University of Chicago

Editor, The Journal of Economic Perspectives

HEIDI WILLIAMS, Stanford University

Editor, American Economic Journal: Applied Economics

BENJAMIN OLKEN, Massachusetts Institute of Technology

Editor, American Economic Journal: Economic Policy

ERZO F.P. LUTTMER, Dartmouth College

Editor, American Economic Journal: Macroeconomics

SIMON GILCHRIST, New York University

Editor, American Economic Journal: Microeconomics

LEEAT YARIV, Princeton University

Secretary-Treasurer

PETER L. ROUSSEAU, Vanderbilt University

OTHER OFFICERS

Director of AEA Publication Services

ELIZABETH R. BRAUNSTEIN

Counsel

LAUREN M. GAFFNEY, Bass, Berry & Sims PLC
Nashville, TN

ADMINISTRATORS

Director of Finance and Administration

BARBARA H. FISER

Convention Manager

GWYN LOFTIS

THE AMERICAN ECONOMIC REVIEW

Editor

ESTHER DUFLO

Coeditors

SYLVAIN CHASSANG

STEFANO DELLAVIGNA

LIRAN EINAV

JEFFREY ELY

MIKHAIL GOLOSOV

PIERRE-OLIVIER GOURINCHAS

CHINHUI JUHN

HENRIK KLEVEN

EMI NAKAMURA

PIETRO ORTOLEVA

Board of Editors

NAGEEB ALI

MANUEL AMADOR

ISAIAH ANDREWS

DAVID ATKIN

NED AUGENBLICK

EDUARDO AZEVEDO

MARTHA BAILEY

HESKI BAR-ISAAC

DANIEL BENJAMIN

ANIL BHARGAVA

LEAH BOUSTAN

ARIEL BURSTEIN

STEVEN CALLANDER

GABRIEL CARROLL

ALESSANDRA CASELLA

ARUN CHANDRASEKHAR

SYLVAIN CHASSANG

ARNAUD COSTINOT

GORDON DAHL

GEOFFROY DE CLIPPEL

MATTHIAS DOEPKE

FEDERICO ECHENIQUE

GEORGY EGOROV

PATRICK FRANCOIS

MICHAEL GRUBB

MARINA HALAC

BÅRD HARSTAD

NAGORE IRIBERRI

OLEG ITSCHKOKI

ŞEBNEM KALEMLİ-ÖZCAN

LOUKAS KARABARBOUNIS

BRIAN KNIGHT

BOTOND KÖSZEGI

ARVIND KRISHNAMURTHY

QINGMIN LIU

GUIDO LORENZONI

JENS LUDWIG

FILIP MATĚJKA

ELLEN MCGRATTAN

ALISDAIR MCKAY

MORITZ MEYER-TER-VEHN

BRENT NEIMAN

RYAN OPREA

PHILIP OREOPOULOS

JUAN ORTNER

AMANDA PALLAIS

ANTONIO PENTA

EDUARDO PEREZ-RICHET

FABRIZIO PERRI

THOMAS PHILIPPON

RONNY RAZIN

ESTEBAN ROSSI-HANSBERG

EMMANUEL SAEZ

VASILIKI SKRETA

KATHRYN SPIER

CHARLES SPRENGER

JAKUB STEINER

BRUNO STRULOVICI

TOMASZ STRZALECKI

AMIR SUFI

JUSTIN SYDNOR

BALÁZS SZENTES

ALIREZA TAHBAZ-SALEHI

JUUSO TOIKKA

FRANCESCO TREBBI

ALEH TSYVINSKI

JOHN VAN REENEN

NICO VOIGTLANDER

PIERRE YARED

Managing Editor

STEVEN M. STELLING

Assistant Managing Editor

MATTHEW A. ROBERSON

January 2021

VOLUME 111, NUMBER 1

Going Negative at the Zero Lower Bound: The Effects of Negative Nominal Interest Rates	Mauricio Ulate	1
Mobilizing the Masses for Genocide	Thorsten Rogall	41
Equilibrium Technology Diffusion, Trade, and Growth	Jesse Perla, Christopher Tonetti, and Michael E. Waugh	73
The Distributional Consequences of Public School Choice	Christopher Avery and Parag A. Pathak	129
Politically Feasible Reforms of Nonlinear Tax Systems	Felix J. Bierbrauer, Pierre C. Boyer, and Andreas Peichl	153
Asymmetric Consumption Smoothing	Brian Baugh, Itzhak Ben-David, Hoonsuk Park, and Jonathan A. Parker	192
Lack of Selection and Limits to Delegation: Firm Dynamics in Developing Countries	Ufuk Akcigit, Harun Alp, and Michael Peters	231
Using Models to Persuade	Joshua Schwartzstein and Adi Sunderam	276

Job Seekers' Perceptions and Employment Prospects: Heterogeneity, Duration Dependence, and Bias	<i>Andreas I. Mueller, Johannes Spinnewijn, and Giorgio Topa</i>	324
Lumpy Investment, Business Cycles, and Stimulus Policy	<i>Thomas Winberry</i>	364

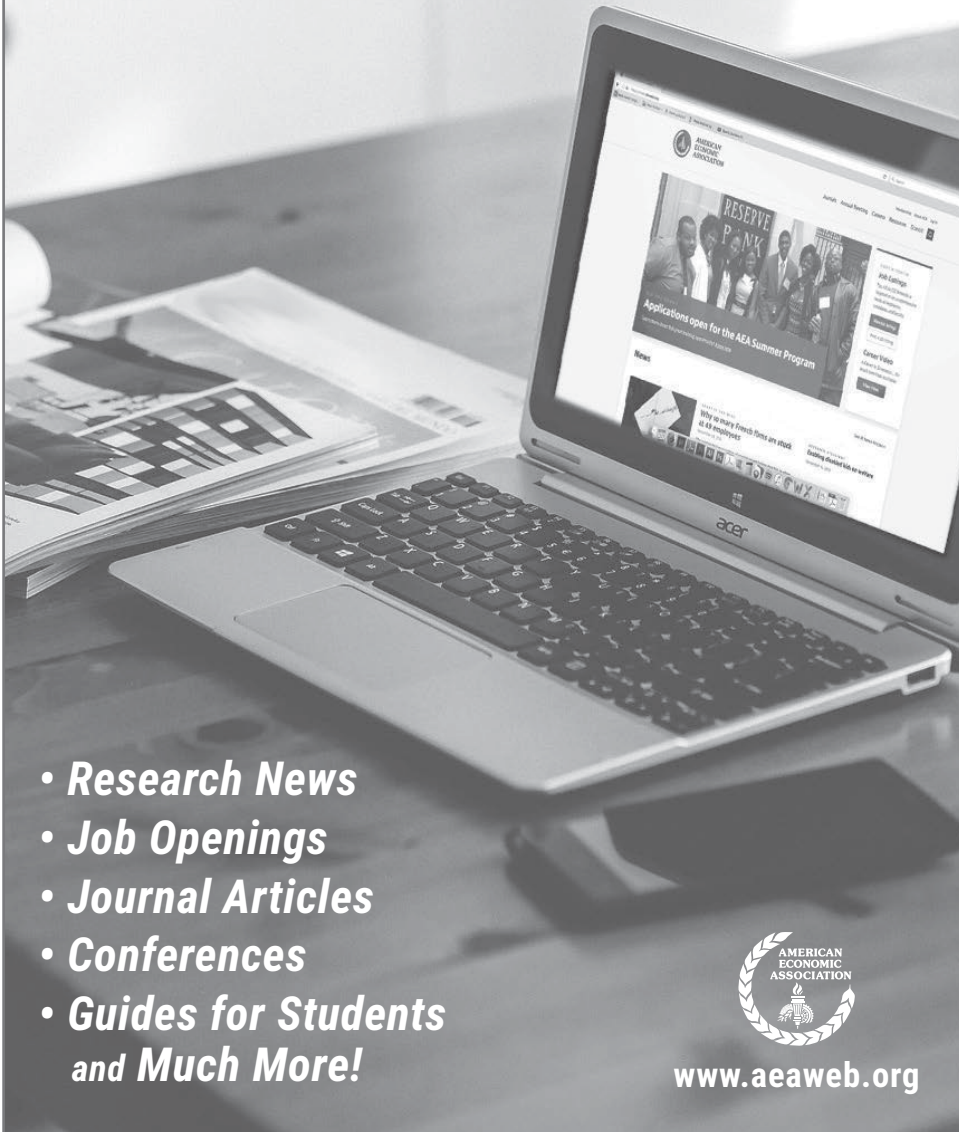
Information on how to submit a manuscript is available online:
<https://www.aeaweb.org/aer/submissions.php>

It is the policy of the *American Economic Review* to publish papers only if the data used in the analysis are clearly and precisely documented and are readily available to any researcher for purposes of replication. Details of the computations sufficient to permit replication must be provided. The Editor should be notified at the time of submission if the data used in a paper are proprietary or if, for some other reason, the requirements above cannot be met.

The AEA Website

Tools for your success!

***A convenient resource for students, economists,
educators, and more.***



- ***Research News***
- ***Job Openings***
- ***Journal Articles***
- ***Conferences***
- ***Guides for Students
and Much More!***



www.aeaweb.org

AIM HIGH. ACHIEVE MORE. MAKE A DIFFERENCE.

Whether you are a student, an established economist, or an emerging scholar in your field, our member resources can be an important part of your success

- ✓ Collaboration
- ✓ Career Services
- ✓ Peer Recognition
- ✓ Learning Resources
- ✓ Prestigious Research
- ✓ Member Communications
- ✓ Member Savings

ADVANCE YOUR CAREER

Starting at only \$24, a membership is a smart and easy way to stay abreast of all the latest research and news in economics you need to know.



Join or Renew
Your AEA Membership Today!
www.aeaweb.org/membership

