Redistribution through Markets

PIOTR DWORCZAK[®], University of Chicago, USA

SCOTT DUKE KOMINERS[®], Harvard University, USA

MOHAMMAD AKBARPOUR[®], Stanford University, USA

Even when global income redistribution is not feasible, market designers can seek to mitigate inequality within individual markets. If sellers are systematically poorer than buyers, for example, they will be willing to sell at relatively low prices. Yet a designer who cares about inequality might prefer to set higher prices precisely when sellers are poor – effectively, using the market as a redistributive tool. In this paper, we seek to understand how to design goods markets optimally in the presence of persistent inequality. Using a mechanism design approach, we find that redistribution through markets can indeed be optimal. When there is substantial inequality across sides of the market, the designer uses a tax-like mechanism, introducing a wedge between the buyer and seller prices, and redistributing the resulting surplus to the poorer side of the market via lump-sum payments. When there is significant within-side inequality, meanwhile, the designer imposes price controls even though doing so induces rationing.

Full Paper: <https://ssrn.com/abstract=3143887>

CCS Concepts: • **Applied computing** → **Electronic commerce; Economics;**

Additional Key Words and Phrases: Optimal mechanism design, Redistribution, Inequality

The “[®]” symbol indicates that the authors’ names are in certified random order, as described by Ray [®] Robson (*American Economic Review*, 2018). The authors thank Benjamin Brooks, Eric Budish, Raj Chetty, Pawel Doligalski, Steven Durlauf, Abigail Fradkin, Alex Frankel, Jonathan Gould, Ravi Jagadeesan, Emir Kamenica, Paul Kominers, Moritz Lenel, Shengwu Li, Elliot Lipnowski, Giorgio Martini, Paul Milgrom, Jeff Miron, Roger Myerson, Eric Nelson, Alessandro Pavan, Canice Prendergast, Doron Ravid, Phil Reny, Marzena Rostek, Alvin Roth, Emma Rothschild, Larry Samuelson, Amartya Sen, Andy Skrzypacz, Stefanie Stantcheva, Alex Teytelboym, Marek Weretka, Bob Wilson, the referees of the Economics and Computations conference, and numerous seminar audiences for valuable feedback. All three authors thank the Becker Friedman Institute both for sparking ideas that led to this work, and for hosting the authors’ collaboration. Additionally, Kominers gratefully acknowledges the support of National Science Foundation grant SES-1459912, the Ng Fund and the Mathematics in Economics Research Fund of the Harvard Center of Mathematical Sciences and Applications, and the Human Capital and Economic Opportunity Working Group sponsored by the Institute for New Economic Thinking.

Authors’ addresses: Piotr Dworczak[®], University of Chicago, Becker Friedman Institute, 1126 E. 59th Street, SHFE 215, Chicago, IL, 60637, USA, dworczak@uchicago.edu; Scott Duke Kominers[®], Harvard University, Rock Center 219, Harvard Business School, Boston, MA, 02163, USA, kominers@fas.harvard.edu; Mohammad Akbarpour[®], Stanford University, 655 Knight way, E251, Stanford, CA, 94305, USA, mohamwad@stanford.edu.

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the owner/author(s).

© 2018 Copyright held by the owner/author(s).

ACM EC'18, June 18–22, 2018, Ithaca, NY, USA. ACM ISBN 978-1-4503-5829-3/18/06.

<https://doi.org/10.1145/3219166.3219213>