

# Estimating the Tradeoff Between Risk Protection and Moral Hazard with a Nonlinear Budget Set Model of Health Insurance\*

Amanda E. Kowalski<sup>†</sup>

December 30, 2010

## Abstract

Insurance induces a well-known tradeoff between the welfare gains from risk protection and the welfare losses from moral hazard. Existing empirical work estimates each side of this tradeoff separately, potentially yielding mutually inconsistent results. In this paper, I develop a nonlinear budget set model of health insurance that allows me to estimate both sides of this tradeoff jointly, allowing for a relationship between moral hazard and risk protection. An important feature of this model is that it considers nonlinearities in the consumer budget set that arise from deductibles, coinsurance rates, and stoplosses that affect moral hazard as well as risk protection.

[Full paper available from author.]

---

\*This is a work in progress. Comments are especially welcome. The following individuals provided helpful comments: C. Lanier Benkard, Steve Berry, John Beshears, Tom Chang, Victor Chernozhukov, Amy Finkelstein, Jonathan Gruber, Justine Hastings, Phil Haile, Jerry Hausman, Naomi Hausman, Kate Ho, Panle Jia, Jonathan Kolstad, Kory Kroft, Fabian Lange, Whitney Newey, Chris Nosko, Matt Notowidigdo, Stephen Ryan, Paul Schrimpf, Hui Shan, Ebonya Washington and Heidi Williams. I thank participants at the public finance seminar and the econometrics lunch at MIT, the junior faculty lunch at Yale, the Cowles Summer Structural Micro Conference, Hunter College, the University of Virginia, and the University of Illinois at Chicago. Jean Roth and Mohan Ramanujan provided invaluable support at the NBER, and Brian Dobbins and Andrew Shepard provided invaluable support with the Yale High Performance Computing Group. The National Institute on Aging, Grant Number T32-AG00186, provided support at the start of this project.

<sup>†</sup>Department of Economics, Yale University and NBER: amanda.kowalski@yale.edu