Competitive equilibrium under Adverse Selection and Moral Hazard
Is there a role for government intervention?

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1 Moral hazard

2 Adverse selection

3 Government intervention
Moral hazard

1. Moral hazard

2. Adverse selection

3. Government intervention
Definition

Moral hazard

“The term “moral hazard” originated in the insurance literature. Its modern use in economics is understood—by economists—to describe loss-increasing behavior that arises under insurance.”

Rowell and Connelly (2012), A History of the Term ‘Moral Hazard’
Moral Hazard – Theory I

- Consumer desires insurance
- Insurance leads to consumer being willing to take more risk
- Contract cannot specify consumer behavior
- Consumer takes more risk than is socially optimal
- Information asymmetry: Insurance contract cannot specify consumer behavior
Figure: Schmieder et. al. (2012)
Krueger (2002) on unemployment benefits:

"More generous benefits will provide greater protection against risk, but would likely generate larger distortionary effects. For example, generous Unemployment Insurance benefits insure workers against the earnings losses that accompany job loss, but also induce some workers to search less intensively for a new job."
Gruber (1997): Benefit levels are too high (in the US)

Parsons (1980) and Hurd and Boskin (1984): Benefit levels explain lower labor force participation

Krueger (2010): Job search is inversely related to the generosity of unemployment benefits
• Card and Riddell (1993, 1997), Riddell and Sharpe (1998), Riddell (1999) examines the timing of UI benefits increasing in Canada relative to the US, and finds no robust relation to relative unemployment rates

• Belot and Van Ours (2001, 2004): Uses variation of UI programs across OECD countries to show that social insurance programs reduce unemployment rates

• Social cohesion, inequality...
Sjöberg et al (2010):

“However, no clear consensus over the empirical evidence seems to have been reached. Nickell et al. (2005) and Nunziata (2002) found a highly significant positive correlation between unemployment benefits and the unemployment rate, Baker et al. (2004) found no clear relationship. Belot and van Ours (2001, 2004) have even suggested that the generosity of unemployment benefits may be negatively correlated with unemployment.”
Adverse selection

1. Moral hazard

2. Adverse selection

3. Government intervention
Definition

Adverse selection

“Situations where one side of the market can’t observe the ‘type’ or quality of the goods on other side of the market. For this reason it is sometimes called a hidden information problem.”

H. Varian, *Intermediate Microeconomics*

“The fact that insured individuals know more about their risk level than does the insurer might cause those most likely to have the adverse outcome to select insurance, leading insurers to lose money if they offer insurance.”

J. Gruber, *Public Finance and Public Policy*
Nobel Prize in 2001 for Akerlof, Spence and Stiglitz awarded for work in this area.


- Insurance markets are covered in Rothschild and Stiglitz (1976) in a model with price-quantity contracts offered.
The Market for Lemons

Demand depends on expected quality in the market. Inefficient outcome (left) and market breakdown (right). Based on Akerlof (1970).
A more general and graphical model for insurance markets presented by Einav and Finkelstein (2011).

- Competitive insurance firm offering **single** contract
- Private information on policyholder, knows **own risk**
- **Falling** marginal cost representing adverse selection.
- Demand reflects risk aversion of consumers
Textbook model in Einav, Finkelstein (2011). Falling marginal cost curve reflects self selection, efficiency is not achieved.
Adverse selection - Empirics


- Search for coverage-risk correlation
- Strong evidence in annuity markets, health insurance (Harvard)
- Policyholders’ use of information, advantageous selection
- Pending work: markets with social insurance

Outcome (Theory and empirics)

Leads to an inefficient market equilibrium or to a market breakdown
Government intervention

1 Moral hazard

2 Adverse selection

3 Government intervention
General result

Government intervention

In general, there is a role for the government in markets with adverse selection, but not in those with moral hazard.

• In the former, government can prevent people from exiting the market and enable an efficient outcome
• In the latter, it has no relative advantage when compared to a private agent
Objections

Adverse selection

Intervention counterproductive?

- AS market still efficient
- Gov. may be source
- Opposed effects
- Additional inefficiencies

Moral hazard

Intervention useful?

- Government to “change the problem”
- Work programs, fire safety advertising
- Government-supplied insurance can reduce (or increase?) incentives to cheat programs
Thanks

Thank you for the attention!