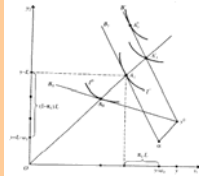


## Moral Hazard



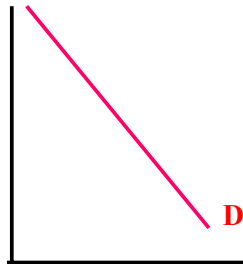
Lectures in Microeconomics-Charles W. Upton

## Moral Hazard

- The so-called moral hazard problem comes about because of asymmetric information.

## An Illustration of the Problem

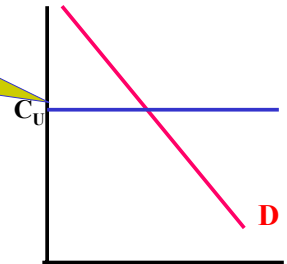
- When you smoke indoors, you risk burning the house.
- There is a cost and benefit.



Moral Hazard

## An Illustration of the Problem

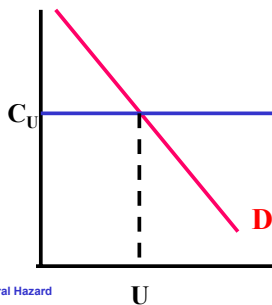
- Cost of smoking if you are uninsured
- There is a cost and benefit.



Moral Hazard

## An Illustration of the Problem

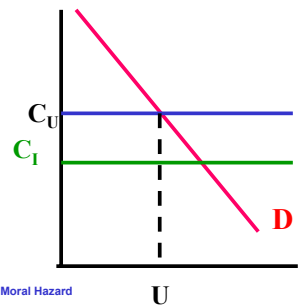
- When you smoke indoors, you risk burning the house.
- There is a cost and benefit.
- You smoke "U" times, where MB = cost



Moral Hazard

## With Insurance

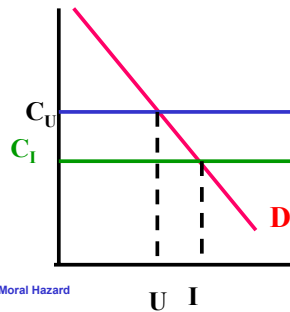
- Now you insure.
- The cost of smoking drops to  $C_1$



Moral Hazard

## The Insurance Company's Problem

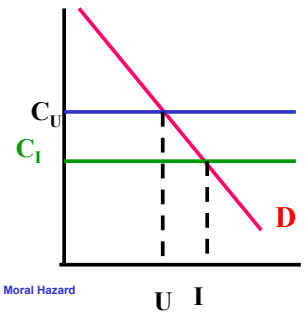
- Now you insure.
- The cost of smoking drops to  $C_1$
- You Smoke "I" times.



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## With Insurance

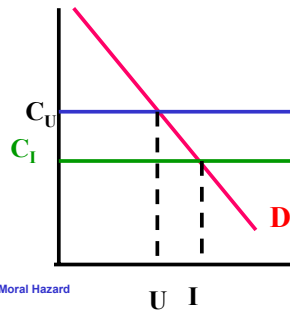
- You raise the cost of insurance



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## With Insurance

- You raise the cost of insurance
- The insurance company cannot discriminate between careless and careful smokers.



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## Moral Hazard

- This problem involves asymmetric information.
- People are induced to change their behavior

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Moral Hazard

## Moral Hazard

- This problem involves asymmetric information.
- People are induced to change their behavior
- It would not come about if we had perfect information.
- Alas, the world is not that easy.

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Moral Hazard

## Producing High and Low Quality Products

- Another example: should you produce a high quality product or cheat your customers and produce a low quality product?

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Moral Hazard

## Producing High and Low Quality Products

- Another example: should you produce a high quality product or cheat your customers and produce a low quality product?
  - If there is perfect information, you can't cheat.
  - If there is asymmetric information, you can.

## Producing High and Low Quality Products

- Suppose you can produce a high quality product and consumers cannot initially tell.
  - Of course, they can eventually tell. People are sometimes slow, but not stupid.
  - Suppose you can trick people for one year.

## Will a Monopolist Produce a Quality Product?

- The monopolist can produce a high quality product for \$15 or a low quality product for \$10.
- During the first period, consumers cannot tell which they are getting.
- The profit-maximizing price and quantity are \$20 and 100 units.

## Will a Monopolist Produce a Quality Product?

- Produce the low quality product for one period.
  - Sales are \$2000; costs are \$1000
  - The monopolist makes \$1000 but for one period only.

## Will a Monopolist Produce a Quality Product?

- Produce the low quality product for one period.  
Produce the high quality product, and get repeat sales.
  - Sales are \$2000; costs are \$1500
  - The monopolist makes \$500 a period.

## Will a Monopolist Produce a Quality Product?

- Given reasonable discount rates the monopolist will choose to produce the high quality product *given these numbers*.

## What about Competitive Firms?

- Stay Tuned.

End

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