

# Chapter 3

건강보험(의료보험)

## A. 보험시장의 형성

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### 1. 보험에 대한 수요?

위험 기피적인 성향(risk averseness).

예기치 않은 사건(질병, 사망)에 따른 손실로부터 발생하는 비효용(disutility)이 확실하게 발생하는 화폐적 손실(보험료 부담)으로부터 오는 비효용보다 큼.

# A. 보험시장

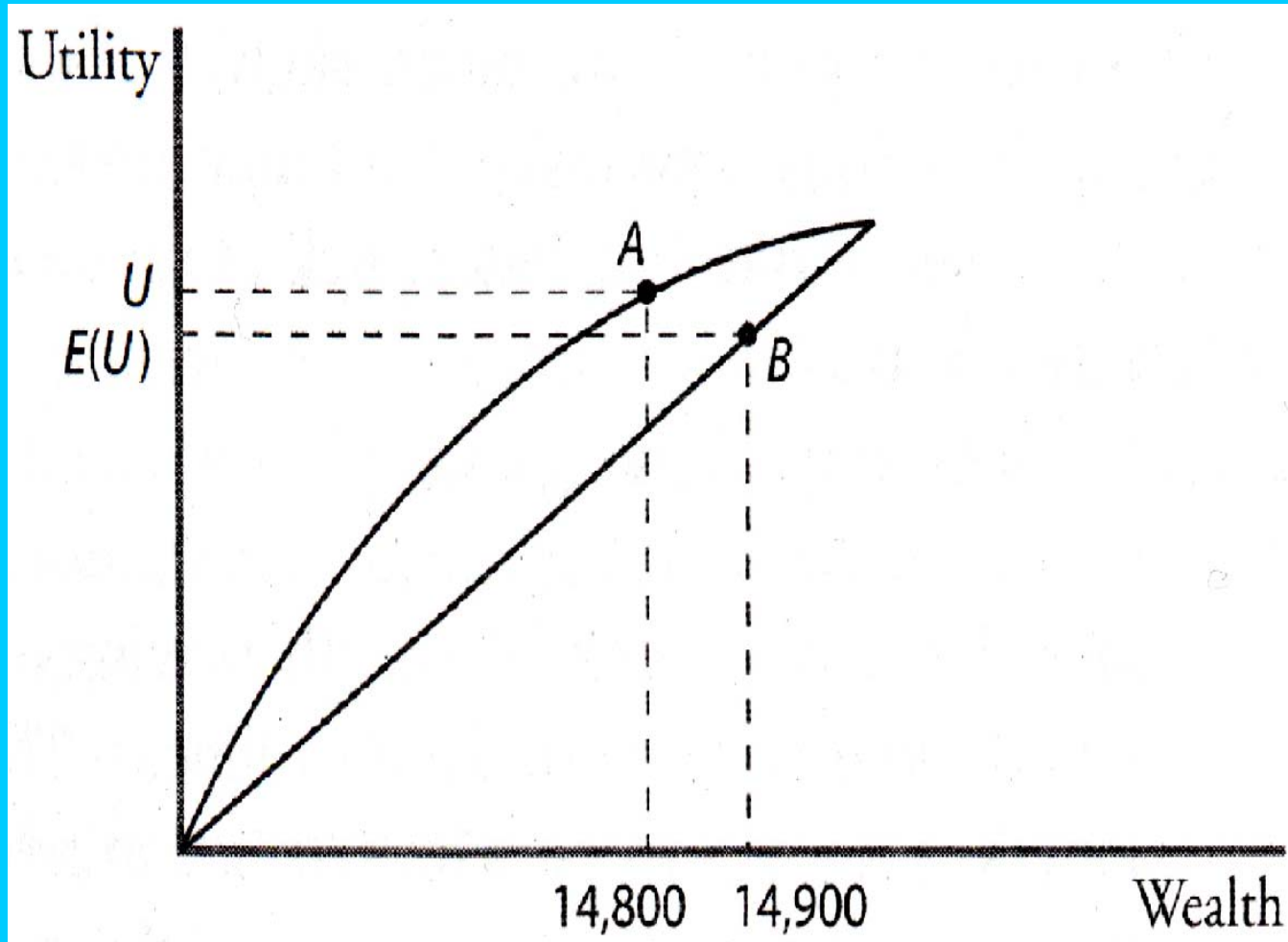
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EU = expected utility

- The weighted average of the utilities associated with possible outcomes, where the weight is the probability that a given outcome will occur.

Risk aversion can be illustrated diagrammatically: In the following figure, EU is the expected utility of an uncertain outcome. U is the utility associated with a certain outcome. Here, a person with wealth = \$15,000 pays \$200 for insurance. Her certain (net) income will be \$14,800. Since this provides greater utility than a 10% chance of incurring a \$1000 medical bill, which leaves her with an expected income of \$14,900, she is risk averse.

# A. 보험시장



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## 2. 보험상품의 공급

*보험회사:* Insurance companies estimate what their average payouts will be. If they can charge more than the average payout to cover costs, they can make profits.

*보험가입자:* Risk averse consumers are willing to pay more than the expected value of their losses for insurance. The amount the consumer is willing to pay over the actuarial fair value of the policy is called the **load** or **loading fee**. This is the price of transferring risk to the insurance company.

## A. 보험시장

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*The load (L)* is often expressed as a ratio between the price of insurance, the premium, and the expected payout (E)

$$L = 100 \times (\text{Premium} / E - 1)$$

In the equation (above) the marginal utility of wealth is decreasing as wealth increases. When that is true, the slope of the EU curve decreases as wealth increases.

In that situation, an individual will be willing to take an “unfair bet”, e.g. pay more for insurance than the expected value of the loss against which he is insuring himself.

## B. 보험과 소비자행동

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### 도덕적 해이(Moral Hazard)

If being insured affects behavior in such a way that the expected payout from the insurance company is increased, this is called *moral hazard*.

건강보험은 다른 보험과 다소 다른 특성이 있음:

- Reduces the cost of the expenditure (medical care) associated with adverse outcome, e.g. illness.
- Main form of moral hazard associated with having health insurance is increased use of medical care by an individual or family.
- With other types of insurance, moral hazard is usually associated with behavior that affects the likelihood of the adverse outcome.

## B. 보험과 소비자행동

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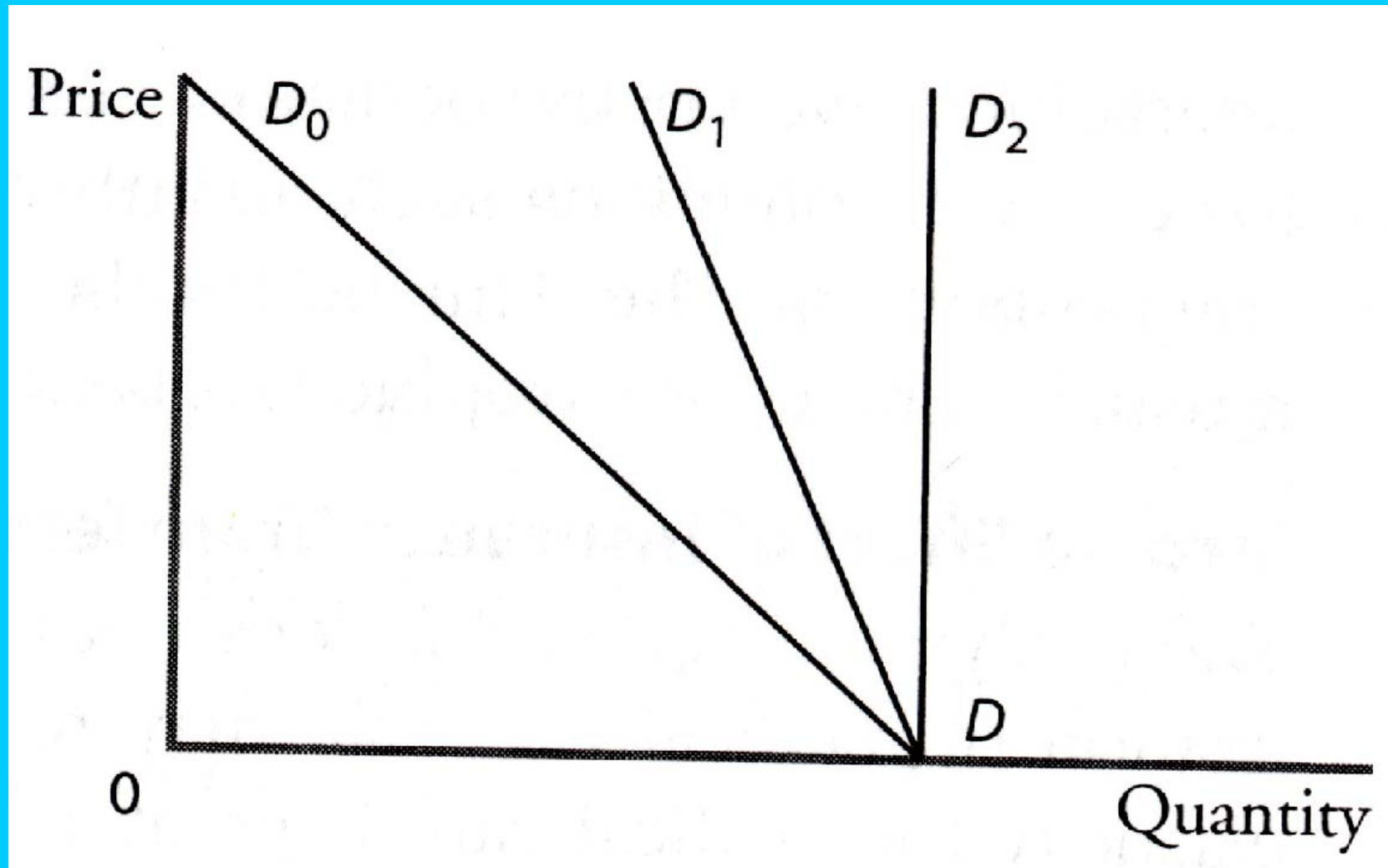
If the demand for medical care is the usual downward sloping function, and if health insurance reduces the price of medical care, being insured would tend to lead to the use of **more** medical care, everything else being held constant.

If an insurance policy is structured so that the insured pays only the premium, after which medical care is free, demand is represented by  $D_2D$  in the diagram of the next slide.

If the insurance company pays half the bill and the insured pays the other half (e.g. has a 50% co-payment), then the demand curve shifts to  $D_1D$ . Without insurance the demand is shown by  $D_0D$ .



## B. 보험과 소비자행동



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### 도덕적 해이의 해결책

- Deductibles
- Co-payments
- Life-time limits on payouts
- Reimbursing in accordance with “usual or customary fees”

## B. 보험과 소비자행동

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### 역선택(Adverse Selection)

*Adverse selection* exists when people who are more likely to buy insurance or policies with more extensive coverage are also more likely to use more insured medical services.

Adverse selection in an insurance pool will:

- Drive up the price of insurance premiums, causing those who expect to purchase fewer insured services (the younger and healthier) to drop out of the pool.
- May lead to a “**Death Spiral**” - the pool of insured will become smaller and smaller, with only the high risk members of the pool remaining, in which case, the insurer may discontinue marketing the product, since the market has shrunk.

## B. 보험과 소비자행동

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### 역선택의 제거

If insurance companies can distinguish individuals who are higher and lower risk and can set prices in accordance with this, adverse selection can be offset.

One technique is to price using *experience rating*: pricing premiums on the basis of past payouts.

Another related technique is to demand medical records, and to price in accordance with apparent health status, in some cases providing insurance that excludes coverage of “pre-existing conditions”.

## C. Group Health Insurance

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In the United States, most private insurance is employment-based group health insurance. It has historically been very popular with workers and employers.

(1) Group health insurance partially offsets the problem of adverse selection. Within groups there is *community rating*, e.g. no price discrimination based on medical histories or personal characteristics of individual members of the group.

(2) All employment-based group health insurance receives favorable tax treatment: employees are not taxed on the value of the insurance policy, and employers can deduct the cost of their contribution to employee insurance premiums as part of the cost of production.

(3) Except for very small groups, or those known to be characterized by adverse selection, group health insurance premiums are much lower than are premiums on insurance purchased by individual families.

## C. Group Health Insurance

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There are some disadvantages to a system of employment-based health insurance.

- (1) It tends to tie people to their jobs (job lock) and therefore reduces labor mobility.
- (2) Small firms often cannot afford to provide workers with insurance, so the employment-based system, when not mandatory, leaves many workers without access to affordable insurance.
- (3) The unemployed face the double insecurity of loss of wages and loss of health insurance.
- (4) Employers are cutting back on their contribution to employee health insurance, with the result that many workers now do not have insurance because they drop out of the firm's plan when they have to pay an increasingly large part of the premium.

## D. Community Effects of Health Insurance

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Over time, at least until the last decade, U.S. workers have opted for more comprehensive health insurance coverage, usually largely paid for “up front” by employers. The favorable tax treatment of employment-based group insurance has augmented this demand for health insurance. (In the 1950s, most people had, at most, insurance covering hospitalization).

Some economists believe that this has led to negative aggregate welfare effects. (Martin Feldstein is an example of this point of view). They argue that too much insurance is inefficient and leads to “consumption” of medical care to the point where the marginal benefit, certainly the marginal social benefit, is less than the marginal social cost. The good effects of insurance coverage are partly offset by the increase in the price of health care that results from the increased demand of the community.