

Microeconomics, Module 10: "Knowledge and Information" (Chapter 9)

Illustrative Test Questions

(The attached PDF file has better formatting.)

Question 10.1: Additional Earnings

The amount a producer earns above the minimum payment it would be willing to accept is called its

- A. Economic rent
- B. Pure social gain
- C. Marginal value
- D. Fabian confiscation
- E. Marginal revenue

Answer 10.1: A

Question: Rent is the price paid for land; what is its relation to economic rent?

Answer: Suppose a farmer rents a plot of land. If the property taxes on the land are zero, the owner would rent it for the highest price above zero that farmers offer. The minimum price is zero, and the entire amount paid by the farmer is the rent.

Land has no cost to maintain or produce, so the entire amount received for use of the land is economic rent.

The table below shows the marginal cost schedules for three firms. The firms must produce a total of 6 units of the good if social gain is to be maximized. (The final exam for the on-line course does *not* test the price system vs central planning.)

<i>Firm W</i>		<i>Firm Y</i>		<i>Firm Z</i>	
<i>Quantity</i>	<i>MC</i>	<i>Quantity</i>	<i>MC</i>	<i>Quantity</i>	<i>MC</i>
1	1	1	3	1	1
2	3	2	7	2	2
3	6	3	12	3	3

Question 10.2: Competitive Price System

If a competitive price system is used to allocate production of the 6 units, the total cost is

- A. \$12
- B. \$13
- C. \$15
- D. \$17
- E. \$18

Answer 10.2: B

Firm W produces 2 units, Firm Y produces 1 unit, and Firm Z produces 3 units. The total cost is $(1 + 3) + (3) + (1 + 2 + 3) = 13$.

Question 10.3: Social Planner

If a social planner allocated production of the 6 units by dividing it equally among the three firms, this creates a social loss of

- A. \$1
- B. \$2
- C. \$3
- D. \$4
- E. \$5

Answer 10.3: D

The total cost is $(1 + 3) + (3 + 7) + (1 + 2) = 17 = 13 + 4$.

Question 10.4: Efficient Market

In an efficient market

- A. No economic rent will be created.
- B. The informational content of prices is diluted by inflation.
- C. The pattern of past prices provides useful information about future prices that is not available elsewhere.
- D. The market price fully reflects all available information.
- E. All firms make the same profits.

Answer 10.4: D

Efficient markets are in the corporate finance course; they are not tested in the microeconomics course.

Question 10.5: Driving Care

Because people with auto insurance drive less carefully than people without insurance, premiums must be increased. This situation is an example of

- A. Adverse selection
- B. A speculative bubble
- C. Morale hazard
- D. The principal-agent problem
- E. None of A, B, C, or D is true.

Answer 10.5: C

Landsburg uses the term *moral* hazard; the insurance industry uses the term *morale* hazard. In the insurance industry, moral hazard refers to fraudulent activity by the claimant or policyholder.

Question: Can you give an example of this?

Answer: A person with Homeowners insurance is less careful about storm windows, since storm losses are covered by the policy; this is morale hazard. If a storm damages goods worth \$500 in the attic, the homeowner might claim that they were worth \$2,500, to collect more from the insurance company; this is moral hazard.

Question 10.6: Quality

Consumers prefer high quality products, but they sometimes have difficulty judging the quality of a product. Consumers often use brand names as an indication of the quality of a product, and firms spend substantial money to develop these brand names. This situation is an example of

- A. Signaling
- B. Adverse selection
- C. Efficient markets
- D. Rent
- E. The principal-agent problem

Answer 10.6: A

Question 10.7: Adverse Selection

When do insurance companies encounter the problem of adverse selection?

- A. When having insurance causes people to take more risks than they otherwise would.
- B. When they do not have the information to distinguish between good and poor risks.
- C. When the price of insurance fully reflects all available information.
- D. When the insurance company suffers large losses because a major catastrophe affects many people simultaneously.
- E. When neither insurers nor policyholders know who has a greater chance of loss.

Answer 10.7: B

Question: Is adverse selection a problem for all lines of business?

Answer: Adverse selection was a problem primarily for health insurance and life insurance until insurers were able to accurately measure mortality and morbidity risks. If the insurer does not know who is healthy and who is not healthy, the persons in poor health seek health and life insurance, whereas the healthier persons are less likely to seek insurance.

Adverse selection is less of a problem now, though it still occurs. Medical underwriting, blood tests, and more thorough medical histories, insurers are able to estimate loss costs about as well as the applicants. Existing conditions exclusions prevent an applicant from getting coverage for illnesses that already exist but that the insurer is not yet aware of.

Adverse selection still occurs when insurers are not permitted to test for a disease or when a chronic condition takes a turn for the worse. An overweight person with high blood pressure may start feeling chest pains every so often and seeks health insurance or life insurance to protect against cardiovascular illnesses. In the late 1980's, four states passed ordinances preventing insurers from using HIV tests for insurance underwriting, causing potential adverse selection for life insurance from HIV positive persons.

Question: Does adverse selection affect auto insurance?

Answer: Some actuaries define adverse selection as differing probabilities of loss among members of the same class. They say that if auto insurers are not permitted to set different rates for men vs women, adverse selection causes them to lose money on young male drivers and make money on young female drivers.

This is not the economic meaning of adverse selection; it is the opposite of adverse selection. The young male drivers think they have great reflexes and are wonderful drivers, with little chance of causing accidents; insurers think of them as accidents waiting to happen. Landsburg focuses on the relation of information to economic costs.

Question 10.8: Adverse Selection by Line of Business

Which line of business has a serious adverse selection problem?

- A. Life insurance, because people with children are likely to buy higher death benefits.
- B. Health insurance, because less healthy people are more likely to seek coverage.
- C. Auto insurance, because drivers with more assets are more likely to buy coverage.
- D. Homeowners insurance, because people with expensive homes buy more coverage.
- E. None of A, B, C, or D is true.

Answer 10.8: B

Drivers with more assets are generally adult drivers with lower accident frequencies. For auto no-fault insurance, the insurer pays wage loss to injured drivers, but the insurer has no trouble getting expected earnings from applicants for no-fault insurance.

Question 10.9: Principal-Agent Problem

Which of the following situations results from a principal-agent problem?

- A. People leaving their doors unlocked because they are insured for loss against theft.
- B. People dressing up for job interviews.
- C. Good risks being unable to purchase as much insurance as they desire.
- D. People being ripped off by mechanics who perform unnecessary repairs.
- E. Insurance agents mislead consumers into buying unnecessary coverages.

Answer 10.9: D

Statement A: Landsburg calls this moral hazard; we call it morale hazard.

Statement B: By dressing up, job applicants send a signal that they will be good workers.

Statement C: If insurers can't differentiate good risks from poor risks, they are reluctant to sell even good risks high amounts of insurance, since they suspect they might be poor risks; this is adverse selection.

Statement D: The mechanic is the agent of the car owner, who is hired to fix the car. If the car owner doesn't know what is wrong with the car, the mechanic may charge for repairs that are not needed and perhaps not done.

Statement E: Misleading consumers is unethical, but is not one of the information problems discussed by Landsburg.

Question: The principal agent problem is much discussed by Brealey and Myers; what do they use as their example?

Answer: The managers who run a firm are the agents of the shareholders, who are the owners. In theory, the managers seek to maximize the profits of the shareholders; in practice, the managers may be more interested in their own salaries, power, and perks than in the well-being of shareholders.