

Microeconomic Principles  
Second Exam – Spring 2006  
Schellberg

PART I (60 points)  
Multiple Choice

- 1: E
- 2: B
- 3: C
- 4: C
- 5: C
- 6: D
- 7: C
- 8: B
- 9: D
- 10: C
- 11: C
- 12: B
- 13: B
- 14: A
- 15: A
- 16: C
- 17: D
- 18: C
- 19: A
- 20: D
- 21: B
- 22: B
- 23: B
- 24: B

Microeconomic Principles  
Second Exam-Spring 2006  
Schellberg

PART II (40 points)

1. (12 points) Nils grows green beans. The market price of beans is \$6/bushel.  
The chart below shows Nils' costs in the short-run.

Q (bushels)	TR \$	TFC \$	TVC \$	TC \$	AVC \$/bu.	ATC \$/bu.	MC \$
0	0	2	0	2	----	----	----
1	6	2	3	5	3	5	3
2	12	2	7	9	3.5	4.5	4
3	18	2	12	14	4	4.67	5
4	24	2	18	20	4.5	5	6
5	30	2	25	27	5	5.4	7

- a. Complete the chart above.
- b. Find the profit if Nils produces 4 bushels of green beans. Show your work.

$$\begin{aligned} \text{Profit} &= TR - TC \\ &= \$24 - \$20 \\ &= \$4 \end{aligned}$$

2. (7 points) Suppose the city of Podunkville wants to build a new museum and cultural center to attract tourist to their small community. The federal government pays \$5 million dollars for this project after the city successfully lobbies for federal funding.

a. Who benefits from this project, and who bears the cost?

*Residents of Podunkville benefit from increased tourism dollars in their town.*

*Citizens (taxpayers) of the entire nation pay the cost of the museum and cultural center.*

b. Explain how rational ignorance of the electorate allows this project to be approved.

*Most people around the country do not take the time to find out about pork barrel projects around the country, because the benefits of finding out are less than the costs. With no opposition from citizens around the country, the pork barrel project will be approved.*

3. (13 points)

a. What is market failure?

Market failure exists when the free market does a poor job of allocating resources, or providing for human wants.

b. Give two examples of market failure. For each example, explain the nature of the problem, and what the government can do to alleviate the problem.

*Very unequal income distribution – because of unequal skills, talents or upbringing, some people end up very poor in a market-based economy. The government redistributes income and opportunity through the progressive tax system, subsidized education, welfare, and social security.*

*Poor information – when people have poor information on product safety or quality, they can end up buying products that are dangerous or useless – e.g. unsafe pharmaceuticals or insurance which provides no coverage when needed. The government regulates various industries to guarantee product safety and quality and to prevent people from being scammed.*

*Monopoly, oligopoly – when there is only one or a small number of firms in a market, people have no choice when buying that product. They end up paying too high a price and consuming too little of that good. They may also have too little product variety, if the firm(s) limit product choice. Antitrust laws prevent certain anticompetitive practices, such as predatory pricing or threatening competitors. These laws are also used to stop mergers that would substantially lessen competition.*

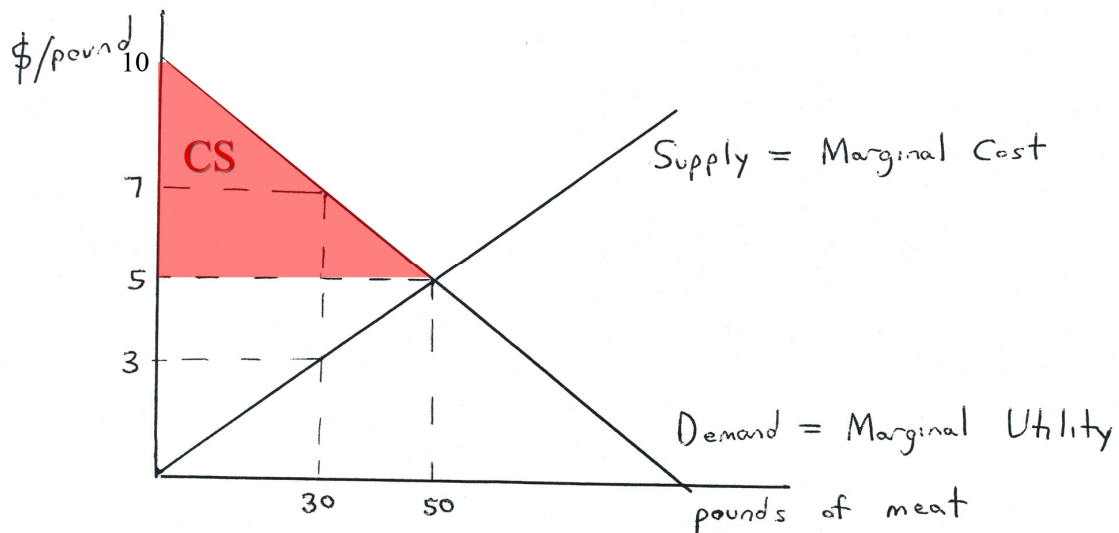
*Negative externalities – firms impose costs on third parties without paying for them. The usual example is pollution. We end up with dirty air and water and people who are poisoned. The government can impose emissions standards to limit the amount of pollution in the air.*

*Public goods – public goods are nonrivalrous and nonexcludable. Nonrivalrous means that of the good produced for one person, it is produced for all at no additional cost. Nonexcludable means that there is not way to exclude nonpayers from the benefits of the good. Because of this “free-rider” problem, no firm would be able to sell public goods in the market place. So, public goods like clean air and national defense would not be provided by the private sector. The government can collect taxes*

and use these funds to purchase public goods on behalf of its citizens.

Allocation of renewable and exhaustible resources over time – Some economists believe that the free market will use up resources such as oil or timber too quickly, so that little or none will be left for future citizens. Remedies to slow the rate of extraction include placing a tax on oil or timber, public funding for research into alternative energy (wind and solar), or public ownership and leasing of land for timber and oil extraction.

4. (8 points) The following graph shows the supply and demand for meat.



- a. If the price of meat is \$5/pound, how much meat will consumers buy?

50 pounds

- b. Sketch the consumer's surplus on the graph, if the price of meat is \$5/pound.

- c. Compute the value of consumer's surplus. Show your work. (The area of a triangle is  $\frac{1}{2} \times \text{base} \times \text{height}$ .)

$$\begin{aligned} A &= \frac{1}{2} \times (\$5 / \text{pound}) \times (50 \text{ pounds}) \\ &= \$125 \end{aligned}$$