Chapter 5 Review: Externalities

Readings: Rosen: Chapter 5 all

Outline

I. Overview of Externalities

II. Solution for Negative Externalities: an Overview
   A. Social pressures
   B. Direct Regulation/Mandates
   C. Lawsuits
   D. Tax the activity generating the externality
   E. Subsidize people to do less of a bad thing
   F. Issue/Auction tradeable permits to do the activity generating the externality
   G. Assign ownership and property rights to the polluted resource

III. Negative Externalities: Mechanical Analysis

IV. Direct Regulation/Mandates
   A. Types of regulation
   B. Good points
   C. Bad points

V. Pigouvian Taxes
   A. Definition
   B. Benfits
   C. Drawbacks
   D. Equity considerations
   E. Examples

VI. Pigouvian Subsidy
   A. Definition
   B. Benfits
   C. Drawbacks
   D. Equity considerations:

VII. Tradeable “Pollution” Permits
   A. Examples:
   B. Benefits
   C. Drawbacks
   D. Equity considerations: How to assign/auction the permits

VIII. Lawsuits (Enforce existing property rights)

IX. Assign New Property Rights/Ownership (Coase Theorem)
   A. Definition
   B. Problems
C. Real world example

X. The U.S. Response

XI. Some Other Equity Considerations

Problems

There are some really good discussion questions a the end of chapter 5 of the text (pp 104 – 105). In particular, I am fond of #s 2 - 8. You go Harvey Rosen!

1. Congratulations! Your years of hard work at TCU have paid off. You have just taken a job for the government of Dontgothere. Your first assignment is to analyze methods for dealing pollution produced by tanneries (i.e. leather makers) around lake Yikesitstinks. There are 24 tanneries around the lake. Some are quite modern while others are quite old. There are over 4,500 fisherman who fish in the lake. Further, tens of thousands of bathers and vacationers use the lake for recreation.

• Ivan, the Minister of Important Things, has suggested a scheme whereby the government requires all firms to cut back their production of leather by the same % in order to reduce pollution flowing into the lake. Critique Ivan’s plan. What are the advantages and disadvantages of his plan?

• Yuri, the Minister of Vital Government Stuff, has suggested a scheme whereby the government requires all firms to adopt a certain type of technology. Critique Yuri’s plan. What are the advantages and disadvantages of his plan?

• Suggest another plan, in particular one which is more effective at harnessing the market incentives. Describe this plan and tell me the advantages and disadvantages of your plan.

• Suggest still another plan, in particular one which is more effective at harnessing the market incentives. Describe this plan and tell me the advantages and disadvantages of your plan.

• Long, open ended question, huh? An exam question would probably be more focused.

2. On the next page you are given estimates of the Marginal Private Cost (MPC), Marginal Private Benefit (MPB), and the Marginal Damage (MD) from producing copper ore.

• What level of production will the private sector undertake?

• What level of production is socially optimal?

• Assume the government chooses to use a Pigouvian tax to correct the problem. What will the (per unit) the amount of this tax be? What are some advantages of a Pigouvian Tax? What are some disadvantages?

• Assume the government chooses to use a Pigouvian subsidy to correct the problem. Describe how this subsidy would work including its amount. What are some advantages of a Pigouvian Subsidy? What are some disadvantages? What are the equity considerations?

1 A little known former Soviet republic
3. How much does compliance with environmental regulations cost the economy today according to EPA estimates? What are two examples of direct regulation or mandates regarding environmental pollution? What are two examples in which the U.S. use Pigouvian taxes regarding environmental pollution? What are two examples in which the U.S. uses tradeable permits or quotas.

4. Coase-ta-Rica, a small country, is having a bit of a problem. A large gold mine is polluting the coase-t line of a lake with cyanide. Two groups are up in arms over this, the one large fishing firm that uses the lake and thousands of recreational users of the lake. The government is thinking about assigning exclusive ownership of the lake to one of the three groups.2

- What theorem in economics covers externalities and ownership of a resource that would otherwise be common property?
- To whom does this theorem say that property rights should be assigned?
- Discuss the ramifications (difficulties, benefits, results) if the property rights are assigned to the gold mine.
- Discuss the ramifications (difficulties, benefits, results) if the property rights are assigned to the fishing firm.
- Discuss the ramifications (difficulties, benefits, results) if the property rights are assigned to the recreational users.

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2 The gold mine is a possible group.