Chapter 6 Review
Government Intervention in Markets

Readings
Chapter 6, all

Outline

O. Why Intervene?

I. Price Ceilings
   A. What is the goal?
   B. Results?
      1. Have we made the good more available?
      2. Who gets it?
         a. Goals: What is our desired outcome?
            i. give it to those will highest WTP?
            ii. give it to those will lowest WTP?
         b. Methods: Non-price rationing
   C. Are there any other methods that might do better at achieving the same goal?
      a. Govt. provision (ex. public housing) … or not
      b. Income tested Subsidies: Section 8 vouchers, Foodstamps, WIC, etc.
      c. Tax Credits (housing, childcare, etc.)
      d. General income assistance (TANF).
      e. Attack the root problem: low human capital ⇒ low productivity ⇒ low income … but how?

II. Price Floors
   A. Examples
   B. What is the goal?
   C. Results
      1. Are all/most sellers making more?
      2. How well targeted are the benefits? Do any groups we don’t want to target gain? Do any groups we do wish to target lose?
   D. Are there any other methods that might do better at achieving the same goal?
      a. The Earned Income Credit (EIC)
      b. Tax Credits (housing, childcare, etc.)
      c. General income assistance (TANF).
      d. Govt. provision (ex. public housing) of “necessities” … or not
      e. Income tested Subsidies: Section 8 vouchers, Foodstamps, WIC, etc.
      e. Attack the root problem: low human capital ⇒ low productivity ⇒ low income… but how?
III. Taxes

A. The dilemma … We want the things that taxes buy, but we don’t want taxes.

B. Modeling Taxes

C. Legal Incidence vs Tax Incidence

D. Tax incidence and elasticities
   1. Elasticity principle: *Summary: you want to “other side” to be inelastic*
   2. Example: High $E_D$, Low $E_S$
   3. Example: Low $E_D$, High $E_S$
   4. Flashback: The Reagan supply-side income tax cuts

Text and Study Guide Questions

Questions for Review from the text (p 132)
all

Problems and Applications from the text (pp 132 – 133)
all but 9

Other Problems

1. You are a labor union president in the Republic of Elastistan. Your goals are twofold: 1) to get high wages for workers, and 2) to minimize unemployment among workers (i.e. to have as many jobs for your workers as possible). Two cities are having elections to decide whether or not to impose a minimum wage. Your union has $150,000 to contribute to one of these campaigns. Experts tell you that $150,000 spent in one city is enough to get the minimum wage law passed in that city. However, it is not enough to get the law passed in both cities. *i.e. You need to pick the one city you most want the see the minimum wage law.* These cities are identical except for their elasticity of demand for labor. *Which city will you pick? Why?*

<table>
<thead>
<tr>
<th>City</th>
<th>$E_{Labor}$</th>
</tr>
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<tbody>
<tr>
<td>Onengrad</td>
<td>1.71</td>
</tr>
<tr>
<td>St. Twosburg</td>
<td>0.71</td>
</tr>
</tbody>
</table>
2. Below, you are given Supply and Demand for the market for haircuts in Dredlock, Colorado. Assume there is perfect information about the quality of the service (haircut), all buyers and sellers act competitively, and there are no externalities.

a. Assume the market is left to seek its own equilibrium.

• What is the resulting level of Consumer Surplus? __________

• Indicate the Consumer Surplus on the graph.

• What is the resulting level of Producer Surplus? __________

• Indicate the Consumer Surplus on the chart.

• What is the resulting net gain to society from having the market? __________

b. Assume a price ceiling of $12.00 is applied to the same market and is effectively enforced.

• What is the maximum resulting level of Consumer Surplus? __________

• Indicate the maximum Consumer Surplus on the graph.

• What is the maximum resulting level of Producer Surplus? __________

• Indicate the maximum Consumer Surplus on the chart.

• What is the maximum resulting net gain to society from having the market? __________
c. Assume a price floor of $24.00 is applied to the same market and is effectively enforced.

- What is the maximum resulting level of Consumer Surplus? __________
- Indicate the maximum Consumer Surplus on the graph.
- What is the resulting level of Producer Surplus? __________
- Indicate the maximum Consumer Surplus on the chart.
- What is the maximum resulting net gain to society from having the market? __________

c. Assume that after the binding price floor is imposed, the maximum Producer Surplus is obtained. Why, besides the general reduction in quantity sold, might one object to this outcome? Why might one not want the sales to go to the sellers that will generate the most producer surplus?

#’s 3 – 6: On the next page, you are given the supply and demand curves, before any taxes, for horse back rides in Valley county, Montana. The city then decides to impose a tax, with the legal incidence on sellers, of $20 per (day long) ride.

3. How many horse back rides will be sold after the tax?
   a. 550        b. 450
   c. 350        d. 250
   e. none of the above

4. What is price will buyers be paying per horseback ride after the tax?
   a. $60        b. $55
   c. $50        d. $45
   e. none of the above

5. What is the $ amount, per ride, that sellers will get to keep after the tax?
   a. $60        b. $55
   c. $50        d. $45
   e. none of the above
6. What would happen to the relative incidence of the tax if buyers became more elastic (ex. lots of alternative entertainments come to the area)?

Answers to Other Problems

1. You are on your own here.

2. Below, you are given Supply and Demand for the market for haircuts in Dredlock, Colorado. Assume there is perfect information about the quality of the service (haircut), all buyers and sellers act competitively, and there are no externalities.

   a. Assume the market is left to seek its own equilibrium.
      - What is the max resulting level of Consumer Surplus? $16,000
      - Indicate the max Consumer Surplus on the graph.
      - What is the max resulting level of Producer Surplus? $8,000
• Indicate the max Consumer Surplus on the chart.

• What is the max resulting net gain to society from having the market? **$24,000**

**b.** Assume a price ceiling of $12.00 is applied to the same market and is effectively enforced.

• What is the max resulting level of Consumer Surplus? **$16,000**

• Indicate the max Consumer Surplus on the graph.

• What is the max resulting level of Producer Surplus? **$2,000**

• Indicate the max Consumer Surplus on the chart.

• What is the max resulting net gain to society from having the market? **$18,000**

**c.** Assume a price floor of $24.00 is applied to the same market and is effectively enforced.

• What is the max resulting level of Consumer Surplus? **$4,000**

• Indicate the max Consumer Surplus on the graph.

• What is the max resulting level of Producer Surplus? **$14,000**

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1 This is equal to the consumer surplus before the price ceiling. This is not always the case. CS can be decreased by a price floor (above P_E). This will happen if Supply is relatively elastic. CS can also be increased by a price floor above P_E if Supply is inelastic enough. Finally, this assumes the 1,000 buyers with the highest Willingness to Pay get the good. That’s highly unlikely … and perhaps undesirable (see part d).

2 A price ceiling (below P_E) **always** decreases PS.

3 An price ceiling (below P_E) **always** decreases the net gain to society (CS + PS)

4 A price floor (above P_E) **always** decreases CS. Less is bought and buyers who do get the good pay more.

5 A price floor (above P_E) can increase or decrease (or even leave unchanged) PS. Sellers sell less (which means lower PS), but they get a higher price for the units they do sell (which means a higher PS). PS is more likely to be
• Indicate the max Consumer Surplus on the chart.

• What is the max resulting net gain to society from having the market? **$18,000**

d. Hint. Can you think of any cases in which the sellers that will generate the most PS (i.e. have a low WTA) are not the ones we are trying to help.

Ooooh! I’ve thought of one. At age 16 I was willing to work for very little; well below the minimum wage. At the same time a gentleman named Tony was willing to work but only for just under the minimum wage. Tony had 4 kids. By working Tony would lose some government assistance and also would have to come up with money for daycare. Despite his desperate straights, Tony’s Willingness to Accept (WTA) was higher than mine. Giving me, with my low WTA, a minimum wage job sure produced a lot of producer surplus. I, however, was not supporting a family let alone myself. I gained from the minimum wage. The general reduction in hiring because of the higher wages caused Tony to go without a job. Could you think of anyone who you would rather have gained?

Increased if Demand is relatively inelastic (i.e. a small reduction in amount sold). PS is more likely to be decreased if Demand is relatively elastic (i.e. a large reduction in amount sold).