Econ 101 Discussion Section-Handout 6

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1 Review

Important Key Concepts of the week:

- Government Spending: According to Milton Friedman, the government should fix the market failures
  - Every day we consume public goods, public goods are generally provided by the government
  - To be able to provide those goods the government needs to get income from somewhere
    - * Taxes
    - * Government Sales
    - * Bonds
    - * Public Firms
- Excise Taxes: One way of getting income is to tax some goods when a purchases is made
  - Remember that some part of the tax is paid by the consumers, some part is paid by the producers
  - Both consumer surplus and producer surplus is modified
  - Nevertheless there is always some dead weight loss
- Tax sensitivity
  - Who suffers the most by the tax imposition?
  - It depends of how sensible the demand or the supply are to changes in price.
  - We will talk so much about this later.

2 Problems: Midterm, Taxes

1. Question 30. Consider a market in which the government has implemented a quota limit that results in the quantity traded in the market being less than the market equilibrium quantity. If the costs of production in this market fall, then holding everything else constant,

   (a) Producer surplus shrinks.

   (b) Price decreases and quantity increases.

   (c) Both price and quantity remain the same as they were before the change in the costs of production.

   (d) Consumer surplus increases.

2. Question 29. Suppose there are three firms producing macbooks and their respective supply curves are as follows where P is the price per macbooks and Q is the quantity of macbooks: Firm 1: P=1+2Q Firm 2: P=1+3Q Firm 3: P=2+Q Given the above information, how many kink points does the market supply curve have?

   (a) 0
   (b) 1
   (c) 2
   (d) 3

3. Question 28. King Pyrrhus is considering a price guarantee program in a market. His economic advisers tell him that (5, 115) and (10, 105) are two points on the linear demand curve (where the first number in each pair represents the quantity demanded), while (15, 45) and (20, 60) are two points on the linear supply curve. Given this information and holding everything else constant, what per-unit subsidy would be required to support a price of 90?

   (a) 25
   (b) 20
   (c) 10
   (d) There is no need to pay a per-unit subsidy since the equilibrium price is 90.

4. Castor, Pollux and Helen spend their days fishing and hunting boar. Their PPF's are given by the following equations (where F is the number of fish caught and B is the number of Boars hunted): Castor: B = 20 - 2F Pollux: F = 10 - 0.5B Helen: B = 10 - 0.2F .

5. Consider the market of the Badger football tickets in Wisconsin. Take the units in thousands of pounds. Market demand : Q = 9 - P, Market supply : Q = P - 1.

   (a) Solve for the equilibrium price and quantity.
   (b) Calculate consumer surplus, producer surplus, and total surplus of this market. Shade the corresponding areas in the graph.
   (c) Suppose the government imposes an excise tax of $2 per unit of tickets Graph and solve for the following:
      i. after-tax equilibrium price and quantity in the market
      ii. net price received by sellers
      iii. total tax revenue (this goes to the government)
      iv. consumers tax incidence (Burden of tax revenue on the consumers)
      v. producer tax incidence (Burden of tax revenue on the producers)
      vi. dead-weight loss
      vii. consumer surplus with the excise tax in place
      viii. producer surplus with the excise tax in place