Problem Set 2

PART A: Suppose that you have a friend who is just joining the course, and wants to know what he has missed. His or her ability to understand the rest of the course, and avoid flunking, thus depends on your ability to provide concise and coherent short-paragraph explanations of no more than four normal sentences. What do you say in order to:

1) Explain why the concept of "opportunity cost" is important?

2) Explain why the concept of "willingness to pay" is important?

3) Explain why economists teach that free competitive markets (with secure property rights, no externalities, and so on) in equilibrium are highly likely to be very good social mechanisms for societies to utilize in order to organize the production and consumption of commodities?

4) Explain why governments' attempts to do better than free competitive markets in equilibrium at either deciding on what quantities should be produced or for what prices things should sell are likely to be a bad idea?

5) Account for widespread suspicion—especially on the political left, but it can and definitely used to show up on the political right as well—that praise of the market system by economists is greatly overblown?

PART B: 1) Let's consider the case not of a price ceiling but of a price floor: Suppose that PDC in the town of Avicenna is, as economists say, "captured" by the interests of latte producers, and they decide that the free market is unfair to those who produce lattes. Take the demand curve to be our standard example:

$P_d = \$10 - 0.0002Q$;

and take the supply curve to also be our perfect-competition example: $P_s = \$2.50$

a) Calculate the equilibrium price, quantity, consumer surplus, and producer surplus.

b) Now suppose that PDC imposes a price floor: nobody is allowed to sell a latte for less than $6. Determine now what the quantity produced and the price will be. Calculate the consumer and producer surplus.

c) Explain, to your friend who has just joined the course, why these calculations you have done are important and interesting.

d) What if PDC decides that it wants to set the price at a price that maximizes producer surplus? What price would it choose? Why do you think it would choose that price?

e) What if PDC decides, instead, that it wants to set the price at a price that maximizes *consumer* surplus—to forbid anyone from charging more than the price it sets. What price would it choose? Why do you think it would choose that price?

f) Suppose that a new political party emerges in Avicenna that claims that the free-market is anti-consumer, and uses the extraordinary high and extortionate price of lattes in the free-market equilibrium as its principal example. Do they have a case? If you think they do have a case, write one short paragraph explaining what you think their case is. If you think they do not have a case, write one short paragraph explaining to them why—in this case, at least—the free market equilibrium is not anti-consumer.

2) Let's rerun B1) with a different supply curve: not the perfect-competition $P_s =$ $2.50, but rather the pure rent $Q_s = 25000$—that is, no matter what the price is, as long as it is not zero, the quantity supplied is 25000.

a) What is the opportunity cost of latte producers for all quantities demanded up to 25000? What is the opportunity cost of latte producers for quantities demanded greater than 25000?

b) Calculate the equilibrium price, quantity, consumer surplus, and producer surplus.

c) Now suppose that PDC imposes a price floor: nobody is allowed to sell a latte for less than $6. Determine now what the quantity produced and the price will be. Calculate the consumer and producer surplus.

d) What if PDC decides that it wants to set the price at a price that maximizes producer surplus? What price would it choose? Why do you think it would choose that price?

e) What if PDC decides, instead, that it wants to set the price at a price that maximizes *consumer* surplus—to forbid anyone from charging more than the price it sets. What price would it choose? Why do you think it would choose that price?

f) Suppose that a new political party emerges in Avicenna that claims that the free-market is anti-producer, and uses the extraordinary low and unfair price of lattes in the free-market equilibrium as its principal example. Do they have a case? If you think they do have a case, write one short paragraph explaining what you think their case is. If you think they do not have a case, write one short paragraph explaining to them why—in this case, at least—the free market equilibrium is not anti-producer.