Macroeconomics 201 Discussion Session #2: Supply, Demand, and Equilibrium

1. What are the assumptions behind the market demand curve?

Income; tastes or preferences; price and availability of related goods (complements and substitutes); expectations of income, tastes, price and avail. of rel. goods; # of buyers; all held constant (because we want to look at just what the relationship is between the two variables—price of a good and the quantity demanded of that good, but other things affect quantity demanded other than price, so if we didn't hold these constant and there was a change in qd, we wouldn't know how much of the change was due to price and how much to a change in one of these other factors. (income affects ability, tastes affect willingness)

2. What are the assumptions behind the market supply curve?

Costs of production (includes: a) input prices and b) technology); expectations of future price, costs of production; # of sellers (because we just want to examine the relation of these two variables—price of a good and the quantity supplied of that good, but there are other things that affect quantity supplied other than price and if we didn't hold these constant and there was a change in qs, we wouldn't know how much of that change was due to a change in p and how much was due to a change in one of these other factors.)

3. Draw a market supply curve and a market demand curve for a hypothetical widget market. Label the equilibrium price p* and the equilibrium quantity q*.

4. For a hypothetical widget market, label a price p1 that is above the equilibrium price. Using dotted lines, indicate the quantity demand qd1 and the quantity supplied qs1, corresponding to price p1. How would you describe this market situation?

Market surplus or excess supply

5. Suppose there was excess demand in the widget market. Explain thoroughly the process by which the market would move from that disequilibrium position to the equilibrium.

Excess demand means that too many buyers are chasing too few goods, so buyers are competing with one another for the goods that are in relatively low supply. In order to make sure that they can get a hold of some of the product, buyers will offer too pay a little bit more for the good. As they bid up the price, sellers will respond to the higher offer by increasing their supply, while some buyers will respond to the higher price by withdrawing some of their demand (less willing and able to buy at the higher price). As long as $qs < qd$, buyers will continue to bid up prices, stimulating supply and causing demand to contract, until $p = p^*$ and $qs = qd$.

6. Suppose there was a market surplus in the widget market. Explain thoroughly the process by which the market would move to the equilibrium.

If there were a market surplus, firms with excess inventories competing with one another for the relatively low demand will slash prices to capture some of the limited demand. As they cut prices, buyers will increase their willingness and ability to buy while some sellers' willingness and ability to supply will fall at the lower prices. As long as $qs > qd$, firms will continue to slash prices, stimulating demand and causing supply to contract, until $p = p^*$ and $qs = qd$.

7. Use a graph with market supply and demand functions to demonstrate the impact of an increase in income.

Should show a shift out of the demand curve.

8. Use a graph with market supply and demand functions to demonstrate the impact of outlawing some technology used by firms in that market that increased productivity, and for which there is no substitute. (use reverse side if you need more room)

Should show a shift in of the supply curve.

9. What is own price elasticity of demand and what are the factors that determine it?

Own price elasticity of demand is the sensitivity or responsiveness of the demand for good x to a change in the price of good x. The factors that determine how elastic or inelastic demand will be for a good are:

a. number and availability of close substitutes. If there are lots of substitutes, demand will be elastic, as a small price change will cause people to switch to a substitute. If there are little or no substitutes, demand will be inelastic, as even a substantial price change means people have no alternative.

b. proportion of budget devoted to the good. If only a small part of your total budget is spent on the good, then even a large % change in price doesn't effect your pocketbook that much, so demand is inelastic. But if you spend a large part of your budget on the good, even a small % change will mean a large absolute impact on your pocketbook, so demand will be elastic.

c. time. In the short run, there is no time to search out alternatives, make adjustments to one's habits, investigate substitutes, etc. so demand will be inelastic. In the long run, one can do these thing, so demand will be elastic.

Firms care about own price elasticity of demand because they want to know what will happen to total revenue when there is a price change.