Tutorial 3 (Week 4)

Q1. What would you expect the price elasticity of demand to be in the markets for the following products? *Ceteris paribus*, what would be the most effective way for the suppliers (if they acted together as a group) to increase their total revenue in these markets?

a. food

b. rice

c. pork roasts

d. beer

e. Ferraris

f. matchboxes

g. refrigerators

Q2. What would you expect the cross-price of elasticity to be between the following pairs of markets?

a. pens and pencils

b. paper and printers

c. tomatoes and softdrink

d. tables and chairs

e. shampoo and conditioner

Q3. What would you expect the income elasticity of demand to be in the following markets in Australia? Categorise each of the products as either inferior, normal, and superior. Would any of you answers change if we considered the equivalent markets in rural India?

a. rice

b. vegetables

d. bicycles

e. tablet computers

f. handbags

g. Prada handbags

Q4. Consider a public policy aimed to reduce the amount of smoking.

a. Studies indicate that the price elasticity of demand for cigarettes is about 0.4. If a packet of cigarettes currently costs K8 and the government wants to reduce smoking by 20%, by how much should it increase the price?

b. If the government permanently increases the price of cigarettes, will the policy have a larger effect on smoking 1 year from now or 5 years from now?

Q5. We have a market with the following supply and demand functions:

$$Q_D = 250 - 3P \quad \text{and} \quad Q_S = 2P$$

a. Graph the market.

b. Calculate the equilibrium price and quantity in the market.

c. At the market equilibrium point, calculate the price elasticity of supply and the price elasticity of demand.

d. Calculate the consumer and producer surplus in the market.

e. Suppose a K10 per unit tax was levied on suppliers. Who would bear a larger share of the total tax burden?

e. Now calculate the actual equilibrium with a K10 per unit tax and graph the new equilibrium. What are the new equilibrium price(s) and quantity?

f. What is the total tax revenue? What fraction of this tax is borne by suppliers and what fraction by consumers?

g. Calculate the new consumer and producer surplus in the market. Add these amounts to the total tax revenue, an compare this answer with your answer to (d). What has happened to the market?

Q6. Consider a market with the following supply and demand functions:

$$Q_D = 12 - 2P \quad \text{and} \quad Q_S = 1.5P - 2$$

a. Graph the market.

b. Calculate the equilibrium price and quantity in the market.

c. Calculate the consumer and producer surplus in the market.

d. Now assume that the government intervenes in the market and fixes the price at K5. What type of price control is this? Calculate the new Q_D and Q_S. Using this information, what has this price control resulted in?

f. Calculate the new consumer and producer surplus in the market. Compare this with your answer to (c). What has happened to the market?

g. Consider the government's policy. Who is it intended to protect? What did it result in? Critically assess the effectiveness of the policy.

h. Seeing the challenges its policy has created, the government is considering subsidising the suppliers in the market. If you were employed as an economic consultant by the government, what would your advice be regarding their plan? If there aim is to protect the producer, what would you suggest instead? What if the government's aim was to create market efficiency?