

MICROECONOMICS I

Exercises (A)

- The Spanish government administers two programs that affect the market for cigarettes. First, media campaigns and labeling requirements are aimed at making the consumers aware of the dangers of cigarette smoking. Second, the Ministry of Agriculture maintains a price support program for tobacco, which guarantees tobacco farmers a selling price that is above the equilibrium market price. Are these two programs at odds with each other with respect to the goal of reducing cigarette consumption? Use graphs to illustrate your answer.
- Consider the following demand and supply schedules for Amaral's last CD.

Price	Quantity supplied	Quantity demanded
10	30,000	0
9	27,000	1,000
8	24,000	3,000
7	21,000	9,000
6	18,000	18,000
5	15,000	27,000
4	12,000	36,000
3	9,000	45,000

What are the equilibrium price and quantity? If the price falls from 10 euros to 8 euros, what is the elasticity of demand? If the price rises from 4 euros to 8 euros, what is the elasticity of supply?

- Suppose that the demand for gasoline in Italy can be expressed as $Q_d = 10 - 5P$ and supply as $Q_s = 10P - 5$ (where price is in euro/liter and quantity in millions of liters). Draw a graph of the market for gasoline in Italy. Find the equilibrium price and quantity. Assume that the Italian government decides to impose a tax of 0.75 euro per liter on gasoline, in order to fund the construction of new highways.
 - Find the new equilibrium price and quantity.
 - Capture the consumers' burden of the tax.
 - Capture the producers' burden of the tax.
 - What is the price elasticity of demand when moving from the pre-tax equilibrium to the post-tax equilibrium? (Comment on your answer and link it to the previous findings on the tax burden.)
- Given the demand curve $Q_d = 80 - 2P$, find the elasticity of demand if the price rises from 2 to 6. Is the good elastic or inelastic? What happens to firm's revenues in response to the same price change? Also find the point elasticity of demand at $P = 4$.
- Manny earns 25,000 euros per year and spends all his income in the consumption of beer. If the price of beer rises from 1 euro to 2 euros, what is the elasticity of Manny's demand? If the price of beer rises from 1 euro to 5 euros, what is the elasticity of Manny's demand? If you are the owner of the pub where Manny buys all the beer, you know that, in response to a 10% increase in price, your revenues are going to:
 - increase by 10%;
 - remain unchanged;
 - decrease by 10%.

6. Assume that taxi cabs licensed in Getafe are prohibited from picking up passengers in Leganes, and taxi cabs licensed in Leganes are prohibited from picking up passengers in Getafe. Hence, people in Getafe can only use cabs licensed in Getafe, while people in Leganes can only use cab licensed in Leganes. The supply and demand curves for taxi cab service in Getafe are: $Q_s = 25P$, $Q_d = 300 - 5P$. The supply and demand curves for taxi cab service in Leganes are: $Q_s = 15P$, $Q_d = 180 - 5P$.
- (a) With the above prohibitions in effect, how many rides will consumers in each town purchase in equilibrium? At what price?
- (b) Now, assume that the prohibitions for taxi cabs in both towns are removed and the two towns become a single market. Derive the demand and supply curves for this bigger market. How many rides will consumers purchase in the new equilibrium? At what price?