



B.E. International Program

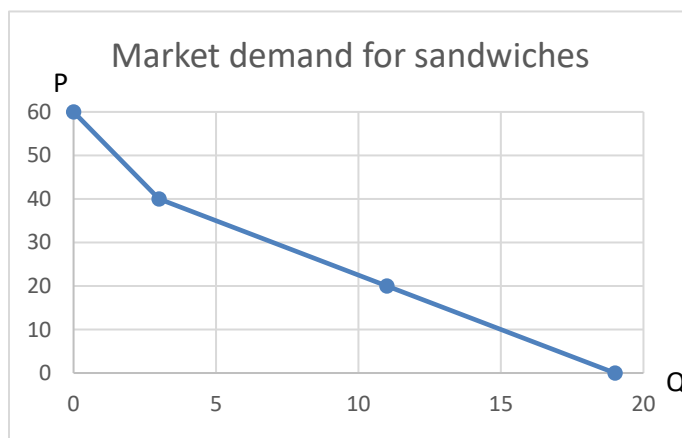
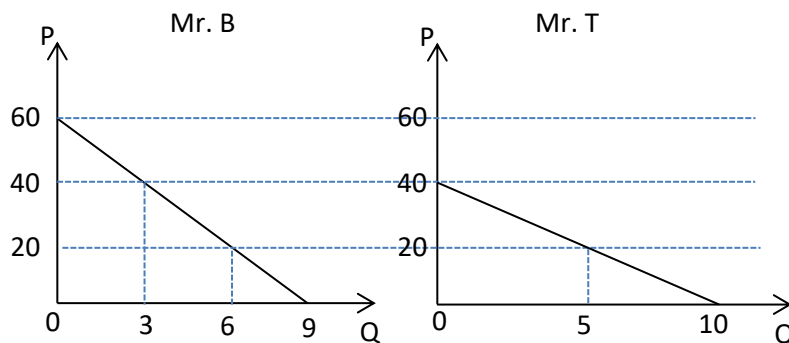
Faculty of Economics, Thammasat University



EE 211 Principle of Microeconomics

Exercise 2

1. Suppose there are two consumers, Mr. B and Mr. T, in the market, and their demands for sandwiches can be shown as follows.



Draw the market demand for sandwiches.

2. Which of the following could result in change in demand?

- a. A decrease in average income.
- b. An increase in the price of a substitute good.
- c. A decrease in the cost of producing the good.
- d. An increase in the price of a complement good.
- e. An increase in population.
- f. An increase in the number of sellers.
- g. A government program that redistributes income.

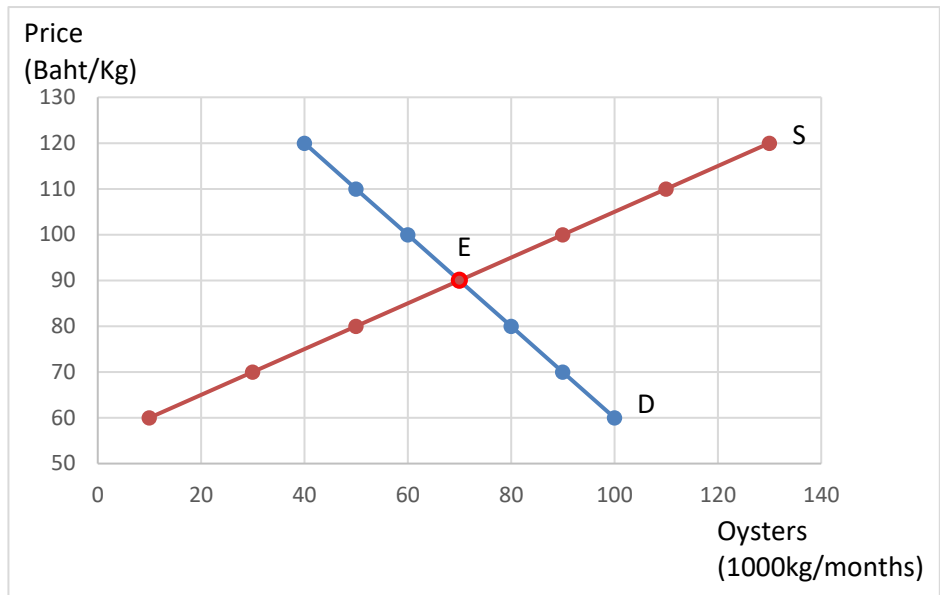
3. Which of the following could result in an increase in the supply of durians?

- a. A decrease in the price of durians.
- b. A decrease in the price of labor employed in harvesting durians.
- c. A change in the number of producers.
- d. An increase in the demand for durians in China.
- e. An improvement in harvesting technology.

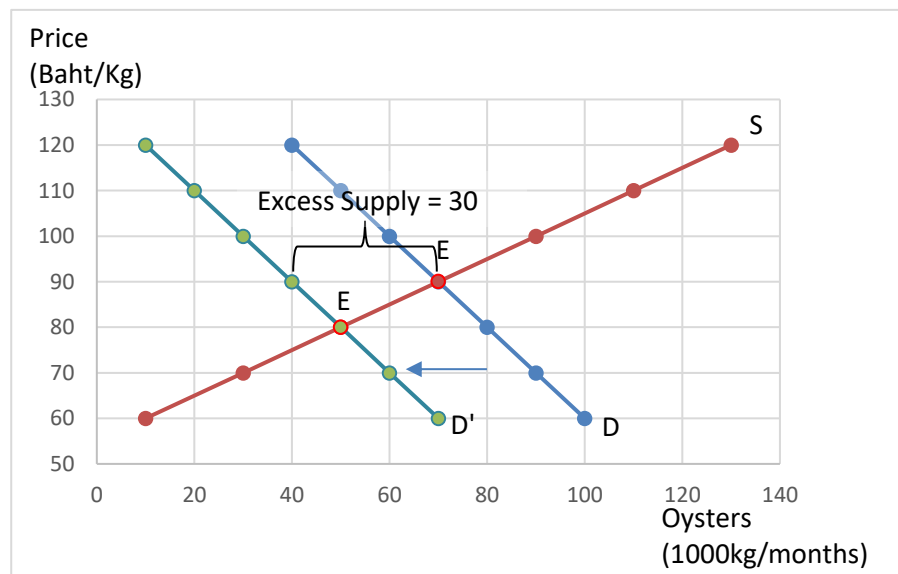
4. The demand and supply schedules for oysters in a local market (in 1,000 kilograms/months) are given as follows:

Price (Baht/Kg)	Quantity Demanded	Quantity Supplied	Excess demand (+) Excess Supply (-)
120	40	130	-90
110	50	110	-60
100	60	90	-30
90	70	70	0
80	80	50	+30
70	90	30	+50
60	100	10	+90

- a. Plot the demand and supply curves in the grid provided below. Indicate the equilibrium levels of price and quantity.



- b. Fill in column 4 for values of excess demand and excess supply. What is the value of excess demand (supply) at equilibrium?
- c. Suppose a decrease in the price of mussels, which are substitutes of oysters, results in a reduction in the quantity of oysters demanded by 30,000 kilograms per month at each and every price.
 - i. Plot the new demand curve in the grid in part a.



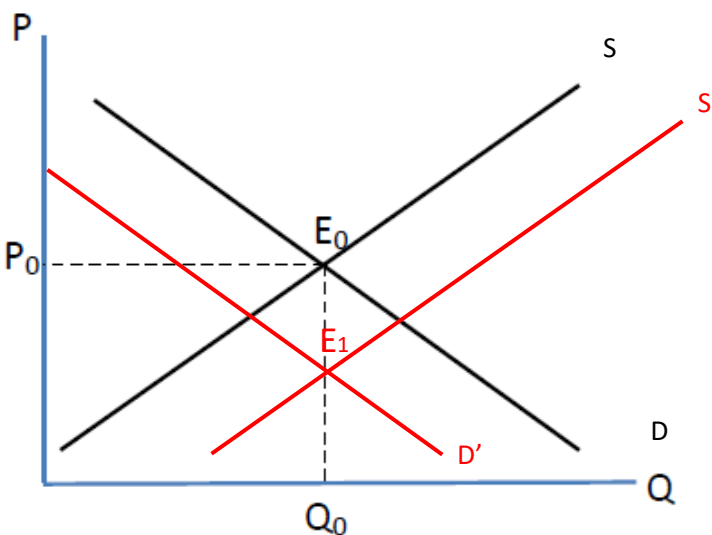
- ii. At the equilibrium price found in part a., is there excess demand or excess supply, and how much?

Excess supply = 30,000kg/months

- iii. Indicate the new equilibrium levels of price and quantity.

At the new equilibrium, the equilibrium price is 80Baht/Kg and the equilibrium quantity of Oysters is 50,000kg/months.

5. Suppose the input prices and the price of a substitute (in consumption) good simultaneously decrease, use a graph to illustrate the adjustments in equilibrium price and quantity.



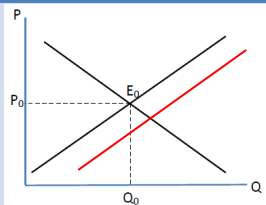
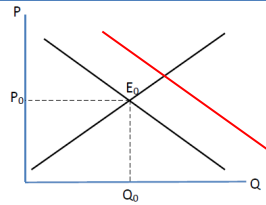
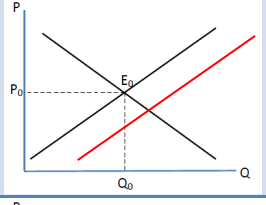
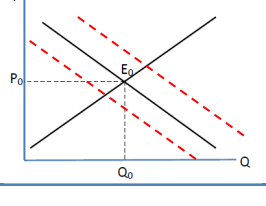
At the new equilibrium (E_1), the equilibrium price will decrease but the equilibrium quantity is unclear.

Case1: If the supply and demand in this case shift in the same magnitude, the equilibrium quantity will be the same.

Case2: If the supply shift with more magnitude than the demand, the equilibrium quantity will increase.

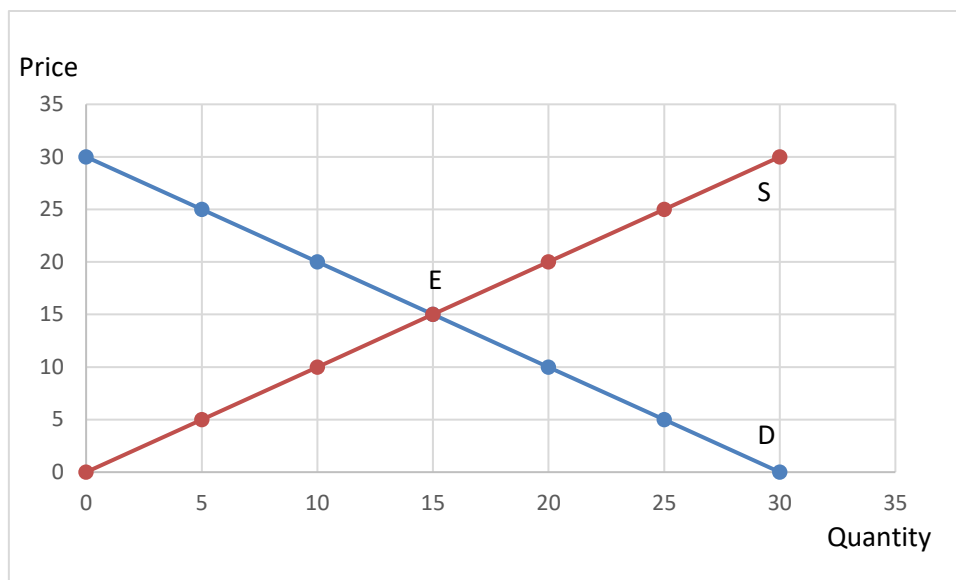
Case3: If the supply shift with less magnitude than the demand, the equilibrium quantity will decrease.

6. Read the description of certain events in the market for selected commodities. Predict the economic impact of these events by drawing the appropriate shifts in the diagram provided below. Also, use + and – to indicate whether there will be an increase or decrease in demand (D), supply (S), equilibrium price (P), and equilibrium quantity (Q). If the change cannot be deduced with the information provided, use U for uncertain. If there is no change, use 0.

Market	Event	Diagram	D	S	P	Q
a. Gold	Vast gold deposits are discovered in Myanmar.		0	+	-	+
b. Bicycles	There is increasing concern about physical fitness. Also, the price of gasoline rises.		+	0	+	+
c. Coffee	There is an increase in coffee plantation in Northern Thailand.		0	+	-	+
d. Fast foods	The public shows greater concern over high sodium and cholesterol. Also, there is an increase in the minimum wage.		U	0	U	U

7. The demand and supply of pencils are given by $Q^D = 30 - P$ and $Q^S = P$.

- a. Plot the demand and supply curve on the grid provided below and label them D and S, respectively.



- b. Determine the equilibrium price and equilibrium quantity, using two methods. First, interpret the diagram. Second, impose the equilibrium condition that $Q^D = Q^S$ and solve algebraically.

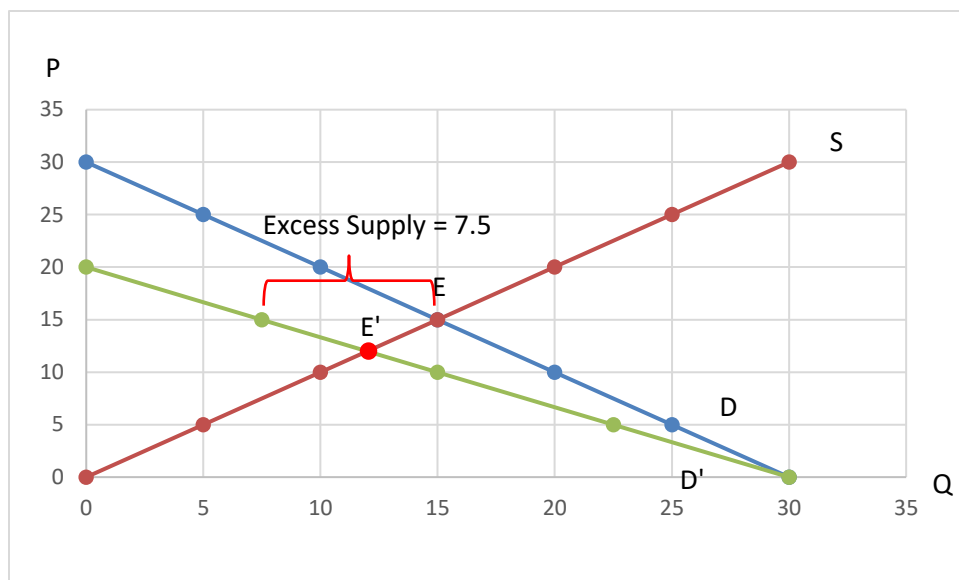
$$Q^D = Q^S$$

$$30 - P = P$$

$$2P = 30$$

$$P = 15, Q^S = Q^D = 15$$

- c. Suppose now that the demand curve changes to $Q^D = 30 - 1.5P$, *ceteris paribus*. Plot the new demand curve and label it D'. Before price adjustments from the answer in part b., is there excess demand or excess supply in the market, and how much?



d. Determine the new levels of equilibrium price and quantity.

[Note: this question is to encourage you to solve for market equilibrium algebraically.]

$$Q^D = Q^S$$

$$30 - 1.5P = P$$

$$2.5P = 30$$

$$P = 12$$

$$Q^D = Q^S = 12$$