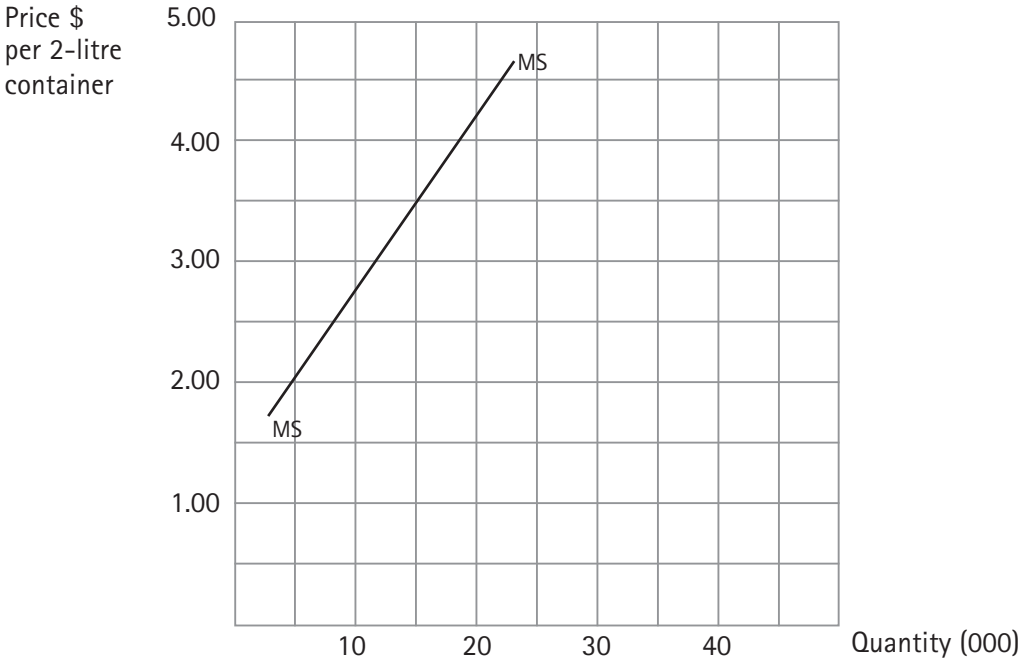
eLearneconomics: Market equilibrium (1)

Student response

Information from consumers about the milk they purchased at several supermarkets was collated in the table below.

Weekly demand schedule for milk				
Price $ per 2-litre container	Supermarket Plus	Supermarket Warehouse	Supermarket Store	Market quantity demanded
1.50	7 000		15 000	30 000
2.50	6 000		9 000	20 000
3.50	4 000		8 000	15 000
4.50	1 000		3 500	5 000

Weekly market for 2-litre containers of milk



a Work out the missing values for the quantity demanded at the various prices, than write the correct answer on your script. On the grid above plot the Weekly Market Demand Curve for 2-litre Containers of Milk. Label the Market Demand MD. On the graph and using dotted lines identify and label clearly the equilibrium price (Pe) and equilibrium quantity (Qe).

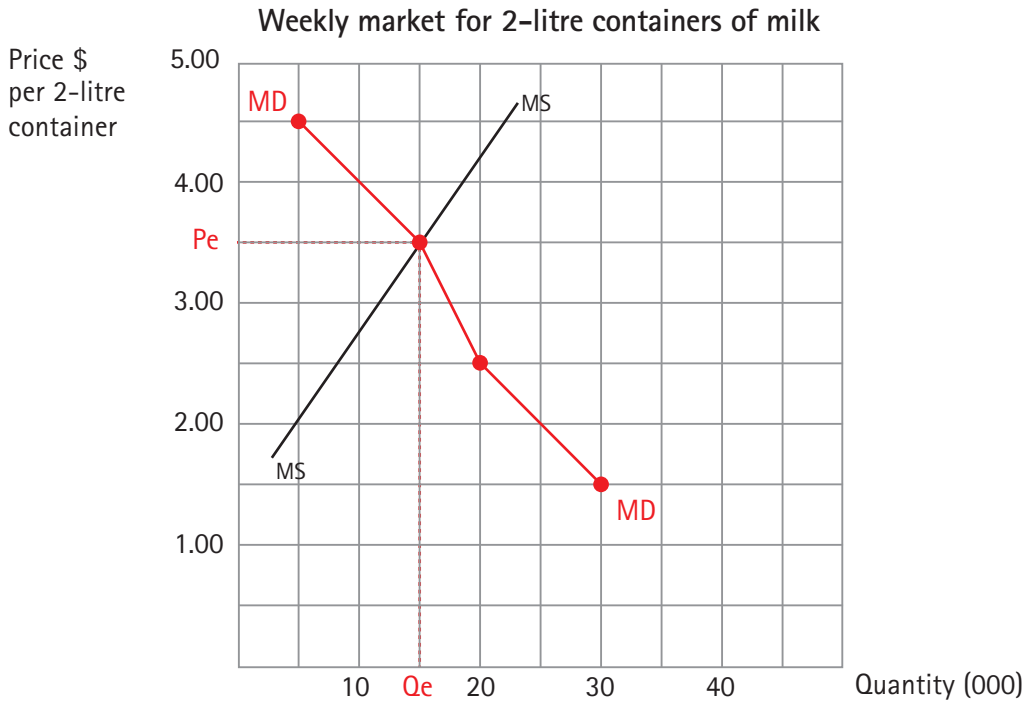
b Using data from the graph, fully explain how the market will restore equilibrium when there is a shortage. In your answer:

- describe what a shortage is and identify a price where there is a shortage
- explain the consumers' reaction
- use the law of supply and the law of demand.

eLearneconomics: Market equilibrium (1a)

Solutions

(a) Missing values: 8,000 5,000 3,000 500



(b) A shortage will occur at any price below the equilibrium price of $3.50 because the quantity demanded by consumers is greater than the quantity supplied by producers. A shortage will occur at $2.00 per 2-litre container of milk because the QD by consumers is 25 000 and QS by producers is 5 000. (Note: student may use other figures.) OR at $2.50 QD is 20 000 and QS is 8 000. OR at $3.00 the QD is 17 500 and QS is 12 000.

Consumers will bid up the price as they try to get milk. As price rises, quantity demanded falls (as stated by the law of demand) from 25 000 containers to 15 000 containers. The quantity supplied will increase (as stated by the law of supply) from 5 000 containers to 15 000 containers because producing milk will be more profitable. The price will continue to rise until it reaches $3.50 per 2-litre container where the QD will equal the QS of 15 000 containers and the equilibrium is restored.

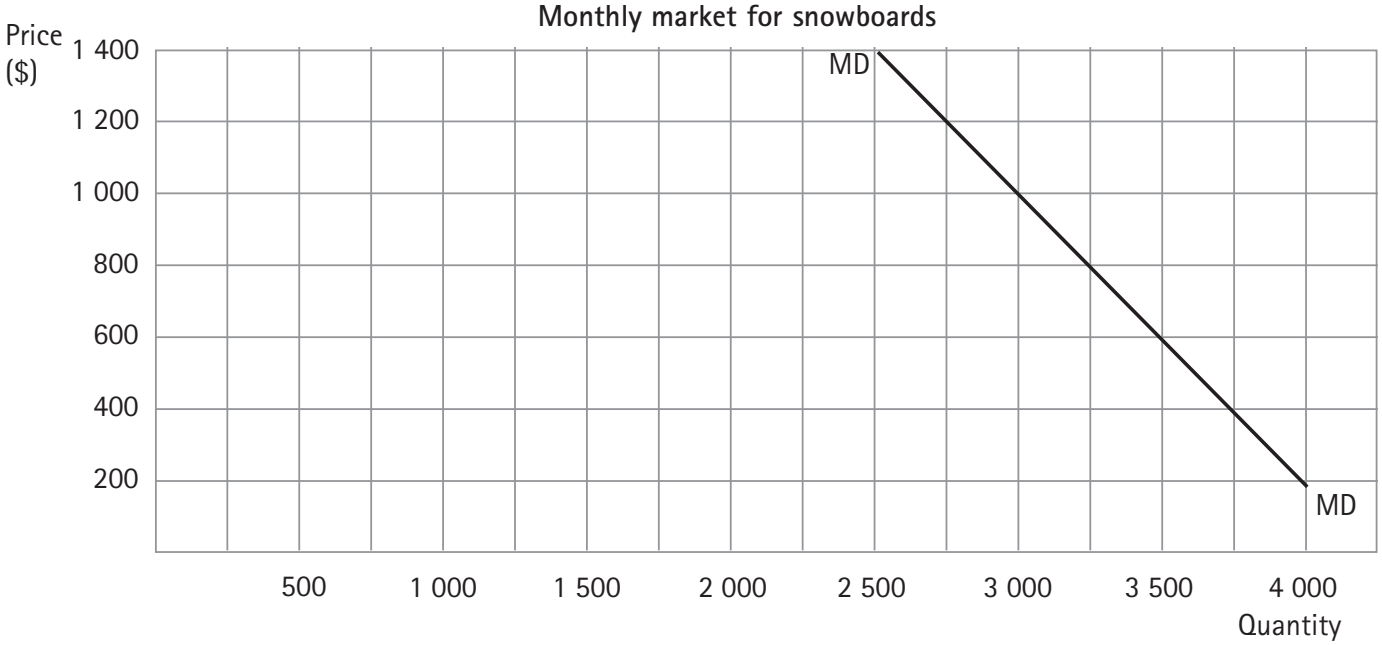
Explains in depth how equilibrium is restored with specific reference to data/graph. Uses appropriate economic terms.

eLearneconomics: Market equilibrium (2)

Student response

Monthly supply schedule for snowboards				
Price $	**Rave Boards**	**Just Boards**	**Boards R Us**	**Market quantity supplied**
200		75	150	250
600		600	700	1 500
1 000		1 200	1 300	3 000
1 400		1 500	1 400	3 500

a (i) Calculate the missing values for Rare Boards.
(ii) On the grid below plot the Monthly Supply Curve for Snowboards. Label the Market Supply MS.
(iii) On the graph and using dotted lines identify and label clearly the equilibrium price (Pe) and equilibrium quantity (Qe).

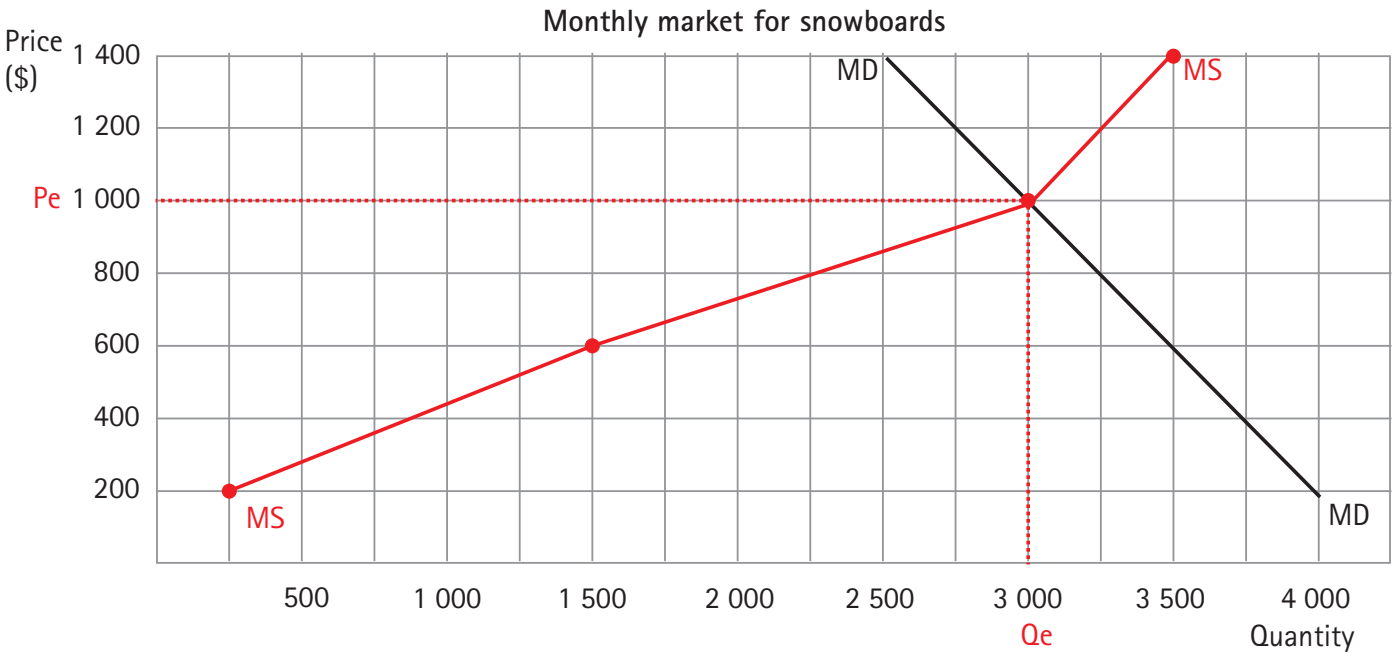


b Using data from the graph, fully explain how the market will restore equilibrium when there is a surplus. In your answer:
- describe what a surplus is and identify a price where there is a surplus
- explain the producers' reaction
- use the law of supply and the law of demand.

eLearneconomics: Market equilibrium (2a)

Solutions

(a) Rave Boards: 25 200 500 600



(b) A surplus will occur at any price above $1 000 because the quantity supplied by producers is greater than the quantity demanded by consumers.

A surplus of 500 will occur at $1 200 because the quantity supplied is 3 250 and the quantity demanded is 2 750 (1 000 surplus at $1 400 because the QS is 3 500 and the QD is 2 500).

Producers will react to a surplus by lowering the price to get rid of unsold stock of snowboards.

As price decreases QS will decrease (as stated by the law of supply), while the QD will increase (as stated by the law of demand), until QD = QS and the equilibrium is restored at Pe and Qe ($1 000 and 3 000). If the price is $1 200 QS decreases from 3 250 to 3 000, while QD increases from 2 750 to 3 000. OR if the price is $1 400 QS decreases from 3 500 to 3 000, while QD increases from 2 500 to 3 000.

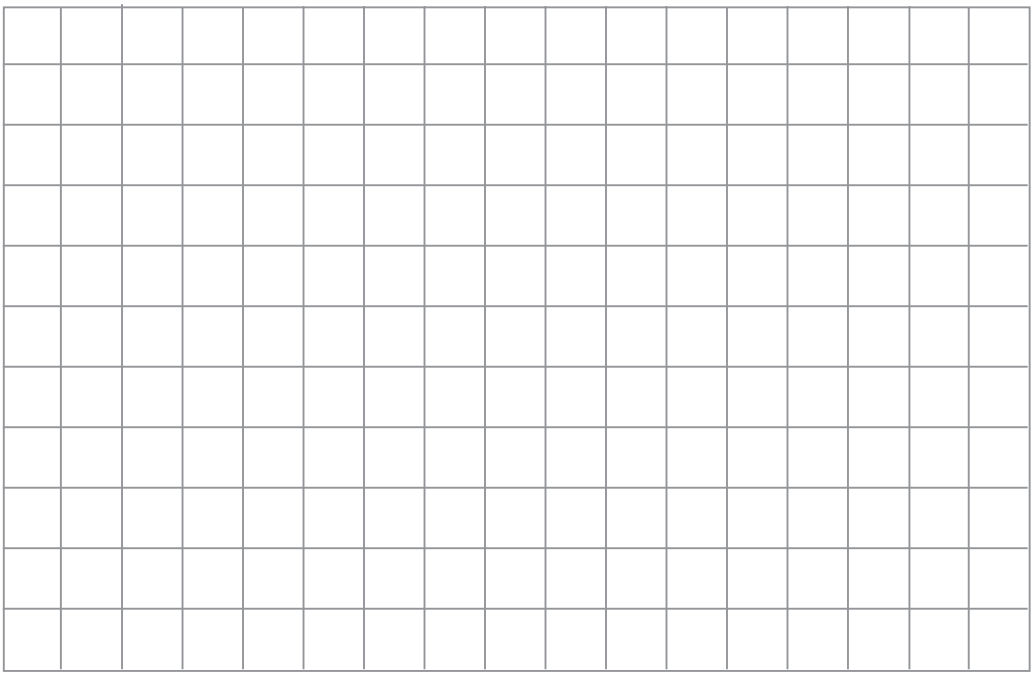
Explains in depth how equilibrium is restored with specific reference to data/graph. Uses appropriate economic terms.

eLearneconomics: Market equilibrium (3)

Student response

Weekly market for business class flights (return) between Auckland and Sydney		
Price ($)	**Market supply**	**Market demand**
2 000	8 000	1 000
1 500	7 000	2 000
1 000	4 500	4 500
500	2 000	7 000

a Use the schedule to draw the graph of business class flights between Auckland and Sydney (return) in the grid below. Indicate the market equilibrium price (Pe) and quantity (Qe).

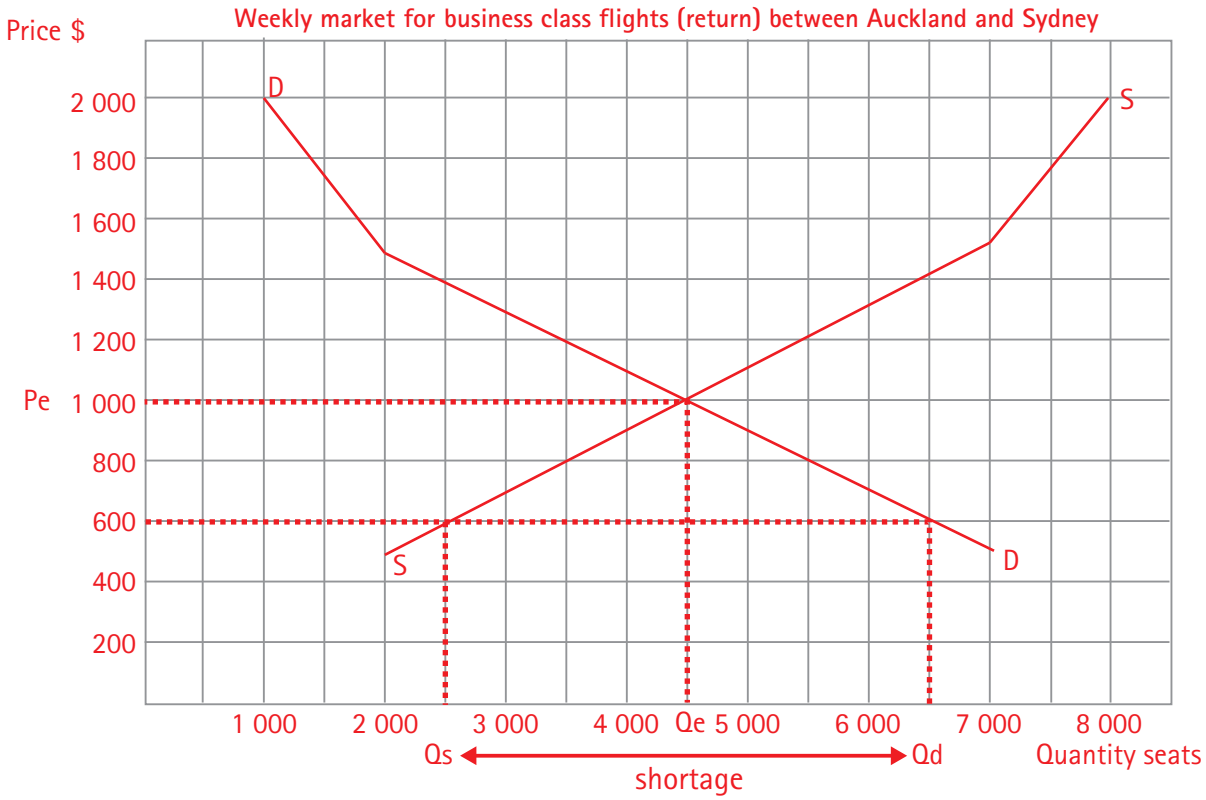


b On the graph, show the market situation if the price of a business class return flight between Auckland and Sydney was $600. Use dotted lines to show the quantity demanded (label this Qd) and the quantity supplied (label this Qs). Label the resulting shortage or surplus.

c Discuss how the market would react to this situation. In your answer you should explain the change in the market price, the change in quantity demanded and quantity supplied. Refer to the data given.

eLearneconomics: Market equilibrium (3a)

Solutions



At $600 there is a shortage of 4 000 seats because the quantity demanded by consumers (6 500) is greater than the quantity supplied by airlines (2 500).

Passengers travelling from Auckland to Sydney will bid up the price as they attempt to get seats.

As the price rises, quantity demanded will fall (from 6 500 to 4 500 seats) because passengers cannot afford to buy more expensive seats. As price rises, the quantity supplied of business class seats by airlines increases (from 2 500 to 4 500) because flights between Auckland and Sydney become more profitable.

The price will rise to the equilibrium price Pe ($1 000) where the quantity demanded equals the quantity supplied at Qe of 4 500 seats weekly.

Explains in depth how equilibrium is restored with specific reference to data/graph. Uses appropriate economic terms.

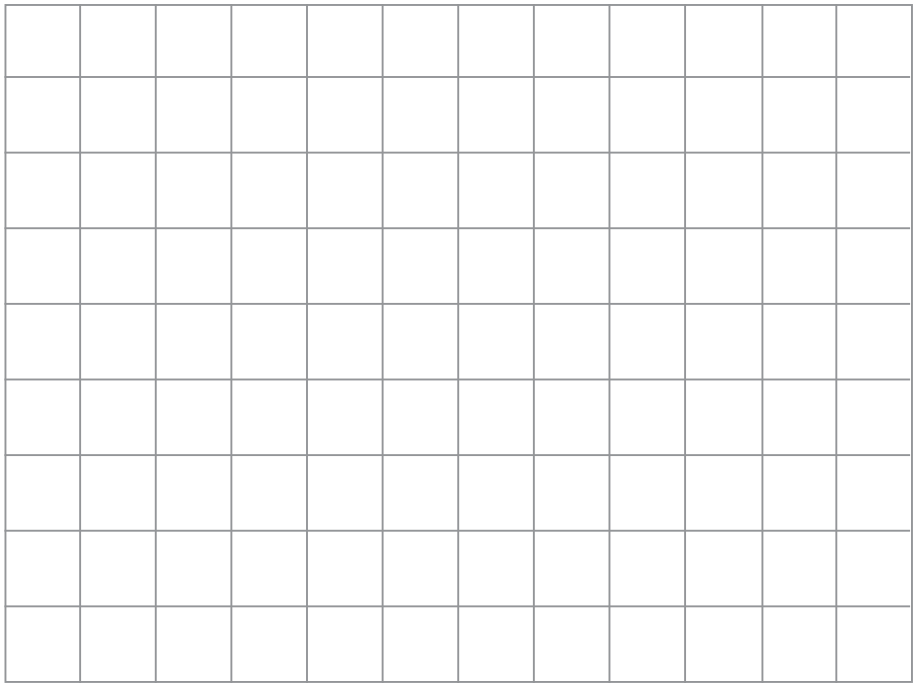
eLearneconomics: Market equilibrium (4)

Student response

The demand and supply of coffee is given below.
At $3 a cup the market demand is 1 000 per day. At $4 individuals buy 800. At $5 market demand is 400, while at $6 consumers purchase 50% less cups than at $5.

Market supply schedule for coffee daily	
Price $	**Market supply**
6	1 100
5	700
4	500
3	200

a On the graph below plot the market for coffee daily. Use dotted lines to show the market equilibrium price (P1) and quantity (Q1).



b On the graph, show the market situation if the price of a cup of coffee was $6.00. Use dotted lines to show the quantity demanded (label this Qd) and the quantity supplied (label this Qs). Label the resulting shortage or surplus.

c Discuss how the market would react to this situation. In your answer you should explain the change in the market price, the change in quantity demanded and quantity supplied. Refer to the data given.

eLearneconomics: Market equilibrium (4a)

Solution

At $6.00 per cup of coffee there is a surplus of 900 cups because the quantity supplied by firms Qs (1 100) is greater than the quantity demanded by consumers Qd (200).

Firms will lower the price to get rid of unsold stock.

As the price falls, quantity demanded by consumers will increase because they can afford to buy more cups of coffee. As the price falls, firms will decrease the quantity supplied because it is less profitable.

The price will fall until it reaches $4.50 at P1 where the quantity demanded will equal the quantity supplied of 600 cups of coffee at Q1. The quantity supplied falls from 1 100 cups to 600 cups and the quantity demanded increases from 200 cups to 600 cups of coffee daily.

Explains in depth how equilibrium is restored with specific reference to data/graph. Uses appropriate economic terms.