Introduction to Microeconomics

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ECO 1001

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Let's Talk Econ: Efficiency and Equity

▶ Right after a hurricane, demand for certain items (roofing, water) might increase but most state governments have laws against price gouging (charging way more than normal prices for basic necessities)

  ▶ Definitely more efficient to allow prices to adapt to increased demand

  ▶ But is it fair? Desirable?

▶ In practice, many construction companies give out water for free after a hurricane, and housing supply prices don't actually increase. Why?

United States: Minnesota Files Price Gouging Suit Against Egg Producer

How to report price gouging after a natural disaster

Anti-price gouging law activated by state of emergency declaration

Attorney General Bonta Issues Consumer Alert on Price Gouging Following State of Emergency Declaration in El Dorado County Due to Caldor Fire

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Consumer Surplus

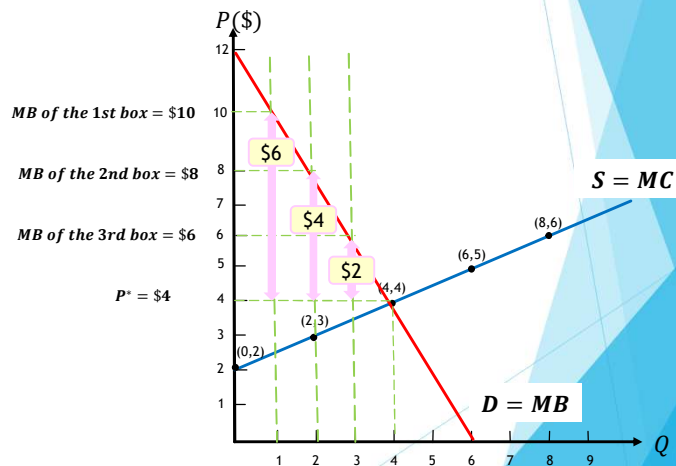▶ Consumer surplus: the value consumers get for a good above the price paid (how much the good is worth to them minus how much it cost)
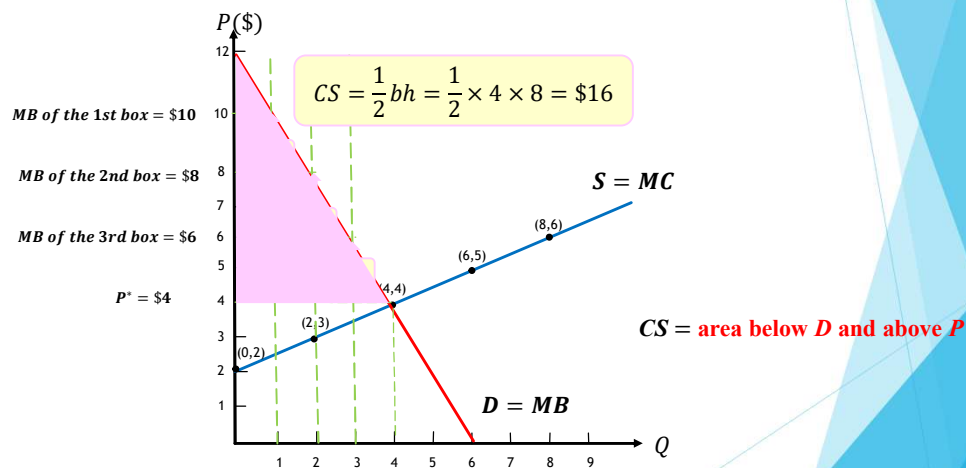
$$= MB - P^*$$

At $Q = 3$,

$$\begin{cases} MB = \$6 \\ P^* = \$4 \end{cases} \Rightarrow CS = MB - P^* = \$2$$
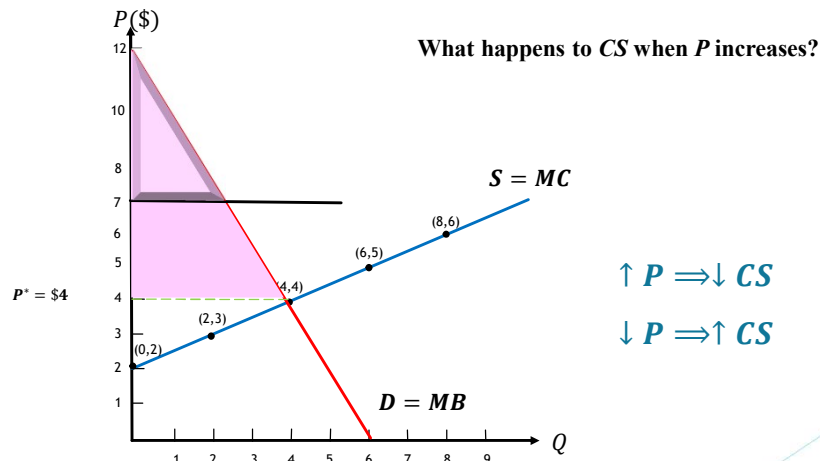
Different from a quantity surplus!

$P(\$)$

MB of the 1st box = \$10
MB of the 2nd box = \$8
MB of the 3rd box = \$6
$P^* = \$4$

$S = MC$
$D = MB$

\$6 \$4 \$2

(0,2) (2,3) (4,4) (6,5) (8,6)

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Total Consumer Surplus

$P(\$)$

$$CS = \frac{1}{2}bh = \frac{1}{2} \times 4 \times 8 = \$16$$

MB of the 1st box = \$10
MB of the 2nd box = \$8
MB of the 3rd box = \$6
$P^* = \$4$

$S = MC$
$D = MB$

(0,2) (2,3) (4,4) (6,5) (8,6)

$CS =$ area below D and above P

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Total Consumer Surplus

P($)

What happens to *CS* when *P* increases?

$S = MC$

(8,6)
(6,5)
(4,4)
(2,3)
(0,2)

$P^* = \$4$

$D = MB$

$$\uparrow P \Longrightarrow \downarrow CS$$
$$\downarrow P \Longrightarrow \uparrow CS$$

Q

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Producer Surplus (PS)

- Remember we are still in a competitive market – producers are also "price-takers"

- Supply curve can then be a depiction of every supplier, lined up by their marginal cost

- For the producer, for whom the marginal cost of production might be $3.50, they experience a benefit from the fact that the market price is $4. That's the producer surplus.

P($)

$S = MC$

(8,6)
(6,5)
(4,4)
(2,3)
(0,2)

$P^* = \$4$
$MC\ of\ the\ 3rd\ box = \$3.5$

Producer Surplus = $0.5

$D = MB$

Q
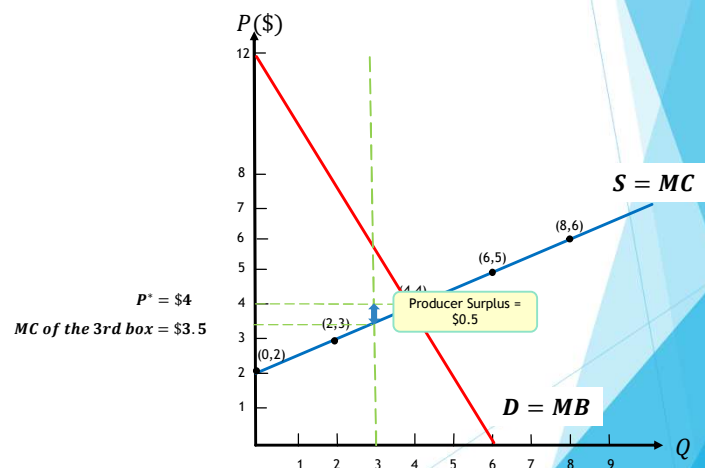
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Producer Surplus

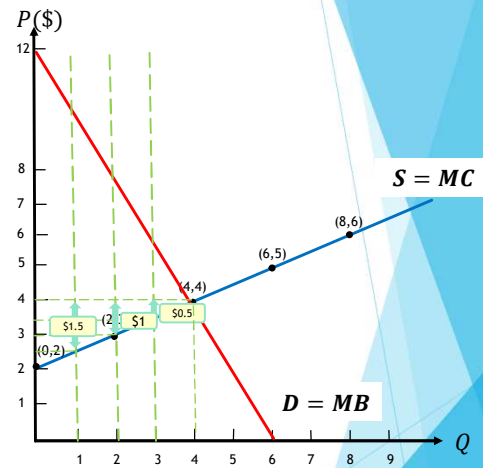- Producer surplus: the value producers get for selling a good or service above the cost of producing it
$$= P^* - MC$$

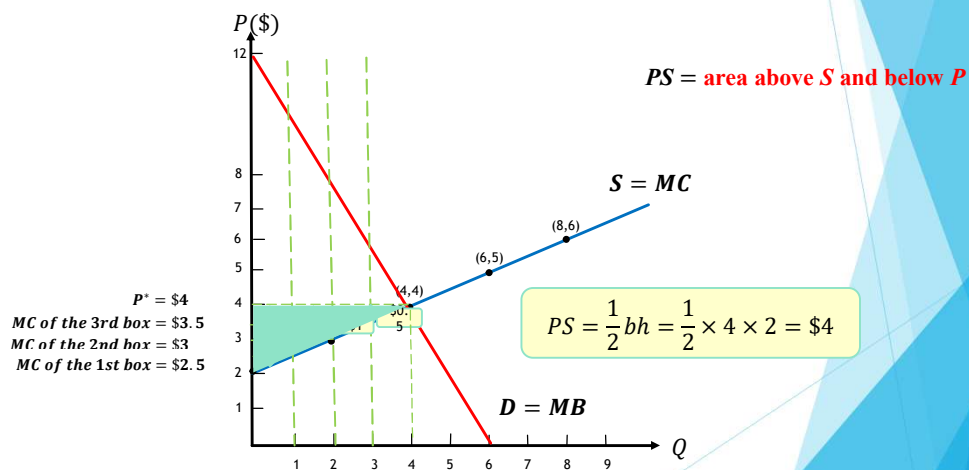At $Q = 3$,
$$\begin{cases} P^* = \$4 \\ MC = \$3.5 \end{cases} \Rightarrow PS = P^* - MC = \$0.5$$

P($)

$P^* = \$4$
MC of the 3rd box = \$3.5
MC of the 2nd box = \$3
MC of the 1st box = \$2.5

$S = MC$

(8,6)
(6,5)
(4,4)

$1.5   (2 $1 $0.5

(0,2)

$D = MB$

Q

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Total Producer Surplus

P($)

$PS =$ **area above S and below P**

$S = MC$

(8,6)
(6,5)
(4,4)

$P^* = \$4$
MC of the 3rd box = \$3.5
MC of the 2nd box = \$3
MC of the 1st box = \$2.5

$$PS = \frac{1}{2}bh = \frac{1}{2} \times 4 \times 2 = \$4$$

$D = MB$

Q

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4

Total Producer Surplus

What happens to *PS* when *P* decreases?

$S = MC$

$P^* = \$4$

(8,6)

(6,5)

(4,4)

$D = MB$

$\downarrow P \Rightarrow \downarrow PS$

$\uparrow P \Rightarrow \uparrow PS$
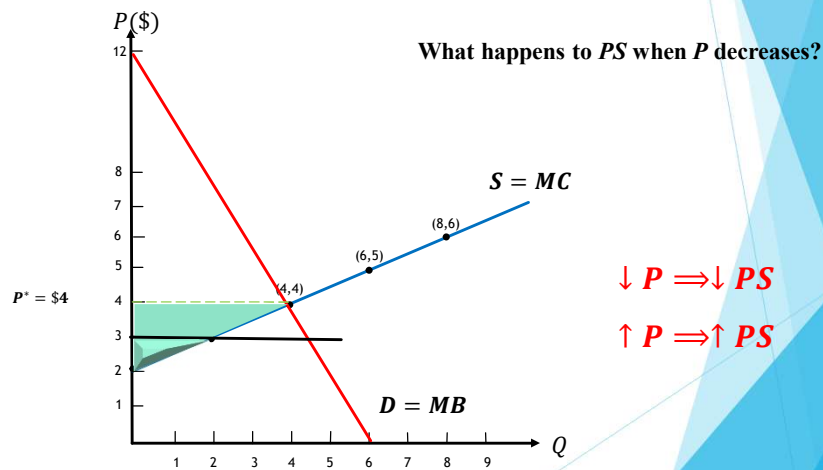
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Test 1

Some things you *need* to know (this is not a complete list!)

▶ Graphing – PPC, demand and supply (using tables, not equations)

▶ Marginal cost

▶ Absolute and comparative advantage

▶ Demand curve, quantity demanded, supply curve, quantity supplied

  ▶ What can shift these, in which direction?

▶ Market equilibrium (using tables or graph, not equations)

▶ Price ceilings and price floors

· I will provide calculators

· In the book, is Chapters 1, 2, 3

  · Practice questions at the end of each chapter, and answer key starting on page 537

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Test 1 –
Some Examples from Previous Years

When operating on its PPF, a country can produce 2 tons of butter and 200 cars OR 3 tons of butter and 150 cars. The opportunity cost of 1 ton of butter is _____ cars per ton of butter.

    A) 300

    B) 200

    C) 50

    D) 0.75

Answer: C

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Test 1 –
Some Examples from Previous Years

Suppose Joe can prepare 20 sandwiches or 10 pizzas in an hour and Beth can produce 36 sandwiches or 27 pizzas. The ideas of comparative advantage and specialization suggest that, to maximize output:

    A) Beth should produce both goods because she can produce more of both goods in an hour than can Joe.

    B) Beth should produce sandwiches and Joe should produce pizza.

    C) Beth should produce pizza and Joe should produce sandwiches.

    D) Beth should produce both goods and Joe should produce sandwiches.

Answer: C

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Test 1 –
Some Examples from Previous Years

The price of the steel used to produce car engines increases. How does this price increase affect the supply curve for cars?

A) The supply curve shifts leftward.

B) The supply curve shifts rightward.

C) The supply curve does not shift.

D) There is not enough information to tell how the change shifts the supply curve for cars.

Answer: A

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Test 1 –
An Example from the Book (p. 85)

A low-income country decides to set a price ceiling on bread so it can make sure that bread is affordable to the poor. Table 3.11 provides the conditions of demand and supply.

What are the equilibrium price and equilibrium quantity before the price ceiling?

By how much will there be a shortage if the price ceiling is set at $2.40? At $2.00? At $3.60?

Price	Qd	Qs
$1.60	9,000	5,000
$2.00	8,500	5,500
$2.40	8,000	6,400
$2.80	**7,500**	**7,500**
$3.20	7,000	9,000
$3.60	6,500	11,000
$4.00	6,000	15,000

TABLE 3.11

Answers:
Equilibrium Price and Quantity: $2.80, 7500
Shortage at $2.40: 1600
Shortage at $2.00: 3000
Shortage at $3.60: 0. No shortage.

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Test 1 –
Some Examples from Previous Years

Suppose you go to Giant and a sign says

<table>
<tr><td>**Ben and Jerry's ice cream pints**</td></tr>
<tr><td>1 pint for $4</td></tr>
<tr><td>2 pints for $5; must buy 2</td></tr>
</table>

What is the marginal cost (for you as a buyer) of the first pint of ice cream?

What is the marginal cost (for you as a buyer) of the second pint of ice cream?

Answers: $4; $1

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Test 1-
Some Examples from Previous Years

What will happen to the global market equilibrium price and quantity of coffee if it is discovered to help prevent colds and, at the same time, Brazil and Vietnam both have a great year for coffee production?

A) The price will fall and the effect on the quantity is uncertain.

B) The quantity will increase and the effect on the price is uncertain.

C) The quantity will decrease and the price will rise.

D) The quantity will increase and the price will remain unchanged.

Answer: B

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