

Problem set 2: will be reviewed in discussion sections week of Oct 3-7

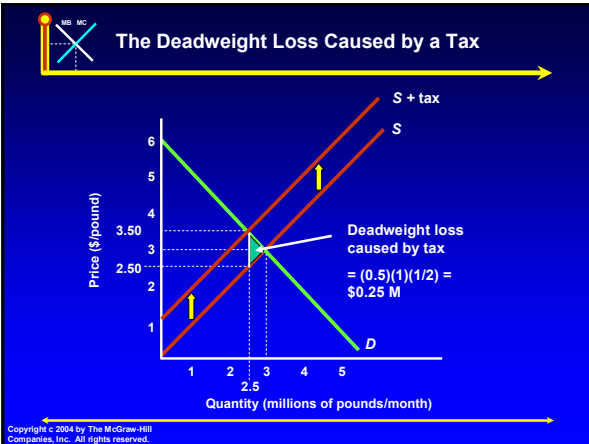
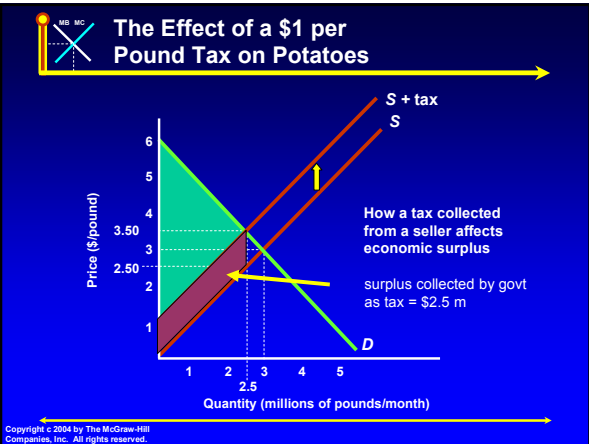
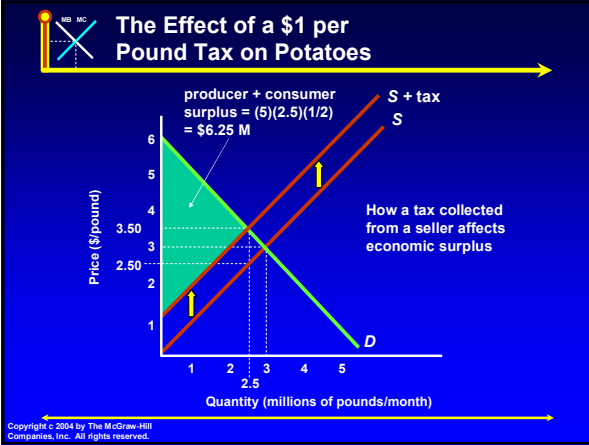
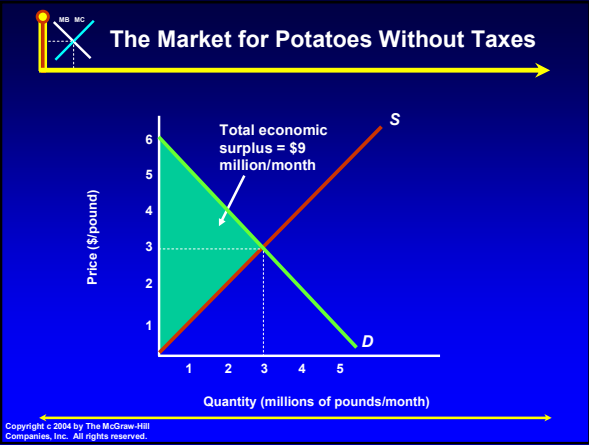
- From the problems at the end of Chapter 9 ("Monopoly, Oligopoly, and Monopolistic Competition"), pages 261-263: prob #2a-c, #7a-e, #8, and #9

No class on Friday, Sept 30 (but discussion sections will meet)

Chapter 7: Efficiency and Exchange

E. Applications

1. Price ceilings
2. Effects of taxes



Chapter 7: Efficiency and Exchange

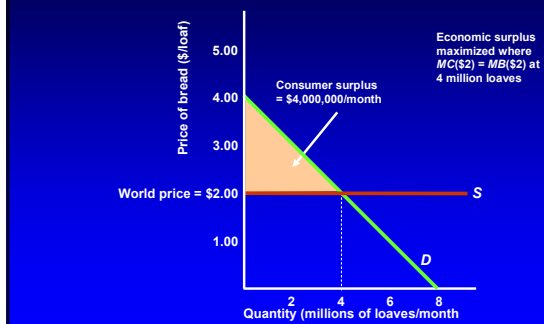
- E. Applications
1. Price ceilings
 2. Taxes
 3. Subsidies

The Cost of Preventing Price Adjustments

- Price Subsidies: Do They Help the Poor?
 - By how much do subsidies reduce total economic surplus in the market for bread?
 - Assume a small nation imports all its bread at the world price of \$2.00

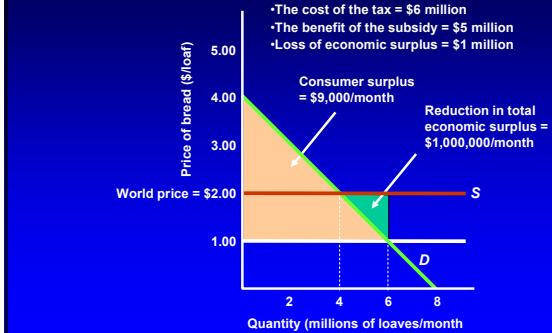
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Economic Surplus in a Bread Market Without Subsidy



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The Reduction in Economic Surplus from a Subsidy



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Chapter 9: Monopoly, Oligopoly, and Monopolistic Competition

- A. Total revenue and marginal revenue

Definition:

total revenue = total amount received from selling product

P = price of product

Q = number of units sold

PQ = total revenue

Definition:

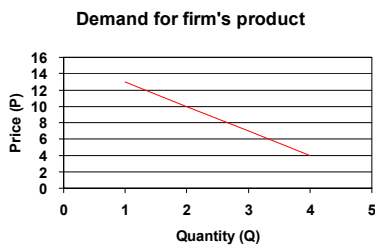
marginal revenue = amount received
from selling one more unit of product

Definition:

marginal revenue = amount received
from selling one more unit of product

$$\frac{\Delta(PQ)}{\Delta Q} \text{ or } \frac{d(PQ)}{dQ}$$

Firm with downward-sloping
demand curve



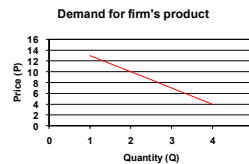
Example: Firm with downward-
sloping demand curve



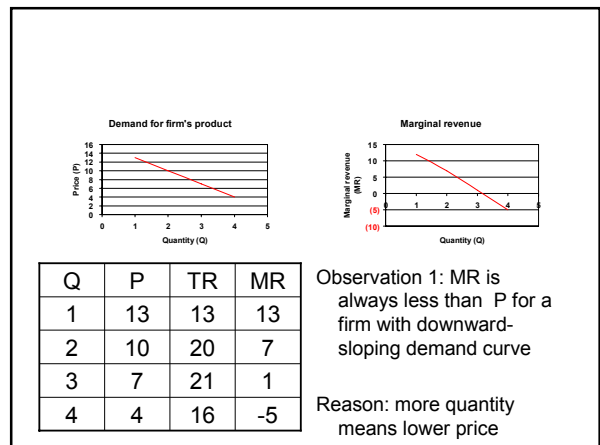
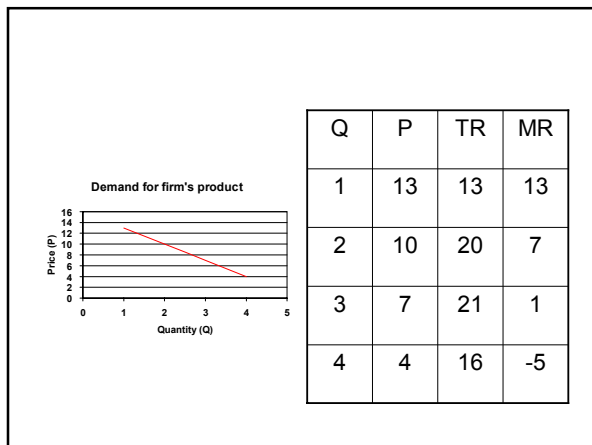
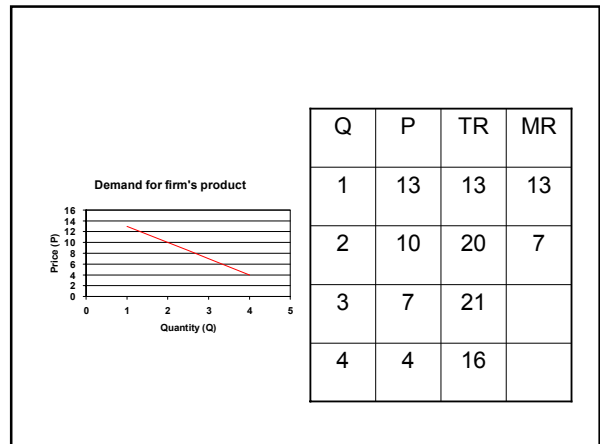
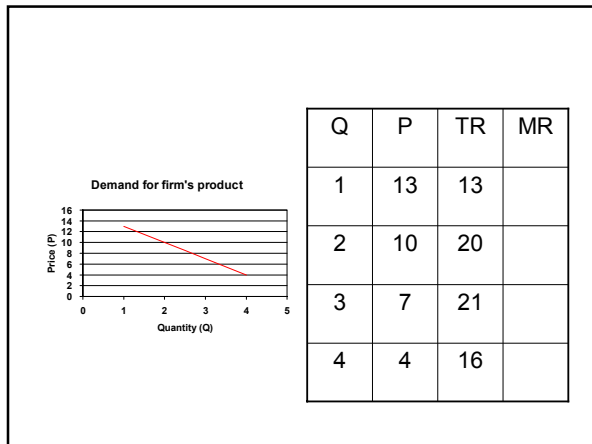
| Q | P | | |
|---|----|--|--|
| 1 | 13 | | |
| 2 | 10 | | |
| 3 | 7 | | |
| 4 | 4 | | |



| Q | P | TR | |
|---|----|----|--|
| 1 | 13 | | |
| 2 | 10 | | |
| 3 | 7 | | |
| 4 | 4 | | |



| Q | P | TR | |
|---|----|----|--|
| 1 | 13 | 13 | |
| 2 | 10 | 20 | |
| 3 | 7 | | |
| 4 | 4 | | |



Observation 2: MR can be negative

Reason: may lose more revenue on lower price from existing customers than gain from new customers

elasticity = percent change in quantity demanded divided by percent change in price

Our text's convention: elasticity is reported as a positive number (assume Q goes down if we raise price, question is by how much)

Whether total revenue increases when you decrease the price depends on elasticity

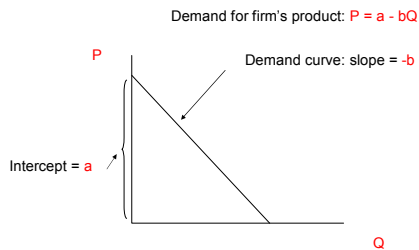
- If 10% price decrease leads to more than 10% gain in Q (elasticity > 1), then total revenue goes up.
- If 10% price decrease leads to less than 10% gain in Q (elasticity < 1), then total revenue goes down.

Special case: linear demand curve

$$P = a - bQ$$

a is the intercept
 $-b$ is the slope

Special case: linear demand curve



$$P = a - bQ$$

total revenue:
 $PQ = (a - bQ)Q$
 $= aQ - bQ^2$

marginal revenue:
 $\frac{d(PQ)}{dQ} = a - 2bQ$

Marginal revenue:

$$a - 2bQ$$

This is equation of a line where

a is the intercept

$-2b$ is the slope

