

Chapter 2

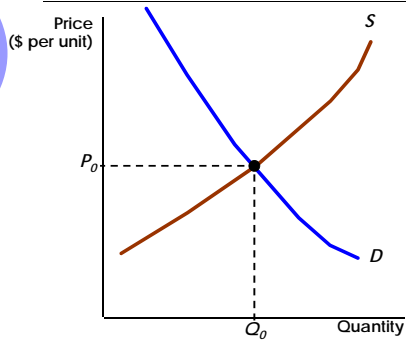
The Basics of Supply and Demand

Question: Suppose you bought an apple for 1,000 Won.

- Why 1,000 Won?
- Who determined it?

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Supply and Demand

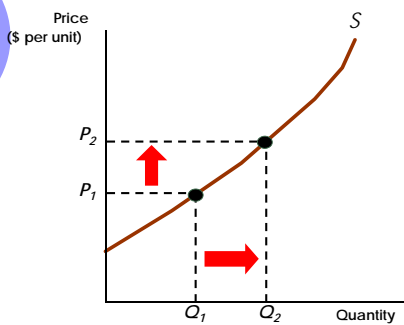
- ()
 - The relationship between the quantity of a good that producers are willing to sell and the price of the good.
 - Measures quantity on the x-axis and price on the y-axis

$$Q_S = Q_S(P)$$

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The Supply Curve



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The Supply Curve

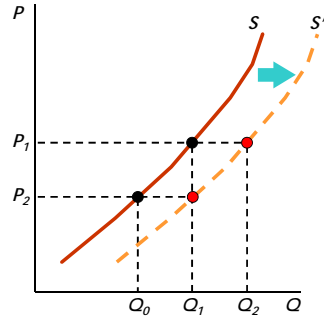
- Other Variables Affecting Supply
 - Costs of Production
 - Lower costs of production allow a firm to produce more at each price and vice versa

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Change in Supply

- The cost of raw materials falls



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The Supply Curve

- Change in ()
 - Movement along the curve caused by a change in price
- Change in ()
 - Shift of the curve caused by a change in something other than price

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Supply and Demand

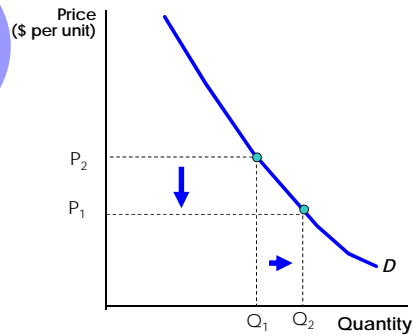
- The ()
 - The relationship between the quantity of a good that consumers are willing to buy and the price of the good.
 - Measures quantity on the x-axis and price on the y-axis

$$Q_D = Q_D(P)$$

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The Demand Curve



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The Demand Curve

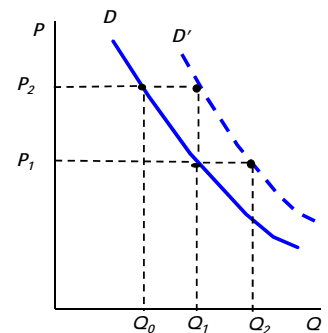
- Other Variables Affecting Demand
 - Income
 - Consumer Tastes
 - Price of Related Goods
 - Substitutes
 - Complements

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Change in Demand

- Income Increases



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The Demand Curve

- Changes in ()
 - Movements along the demand curve caused by a change in price.
- Changes in ()
 - A shift of the entire demand curve caused by something other than price.

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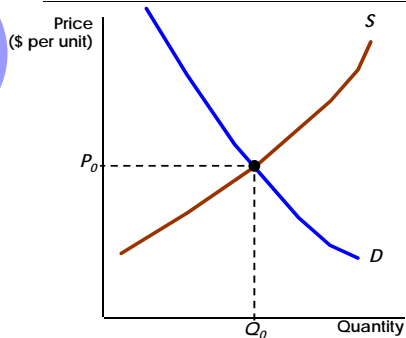
The Market Mechanism

- Markets clear when quantity demanded equals quantity supplied at the prevailing price
- () – price at which markets clear

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The Market Mechanism



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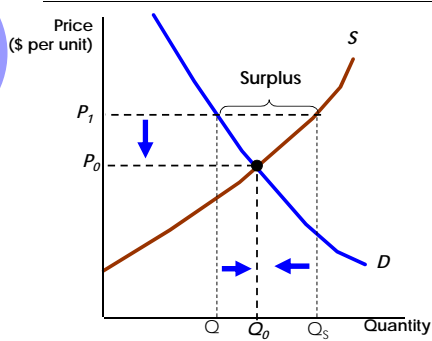
The Market Mechanism

- In equilibrium
 - There is no **shortage** or **excess demand**
 - There is no **surplus** or **excess supply**
 - Quantity supplied equals quantity demanded
- What if $P > P_0$? Or $P < P_0$?

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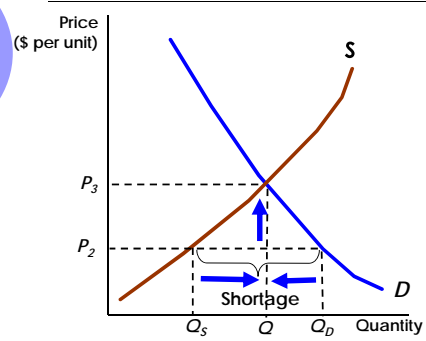
The Market Mechanism



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The Market Mechanism

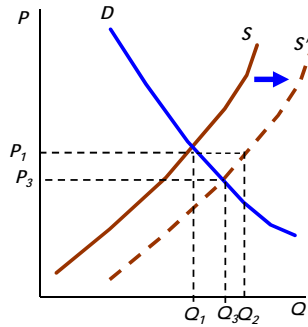


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Changes In Market Equilibrium

- When raw material prices fall

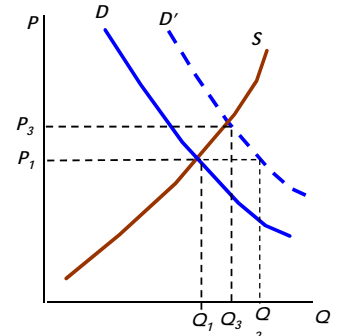


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Changes In Market Equilibrium

- When income increases

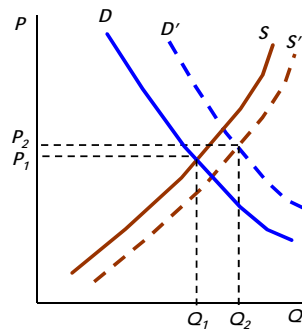


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Changes In Market Equilibrium

- When income increases & raw material prices fall



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Changes In Market Equilibrium

Question:

Why do the prices of some goods, like apples, go down during the months of heaviest consumption while others, like beachfront cottages, go up?

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Q: KORAIL's Problem

- Seoul-Chuncheon line: Deficit
- What to do?
 - Raise the price?

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Price Elasticity of Demand

- Measures the sensitivity of quantity demanded to price changes.
 - It measures the percentage change in the quantity demanded of a good that results from a one percent change in price.

$$E_p^D = - \frac{\% \Delta Q^D}{\% \Delta P}$$

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Price Elasticity of Demand

- The percentage change in a variable is the absolute change in the variable divided by the original level of the variable.
- Therefore, elasticity can also be written as:

$$E_p^D = -\frac{\Delta Q/Q}{\Delta P/P} = -\frac{P \Delta Q}{Q \Delta P}$$

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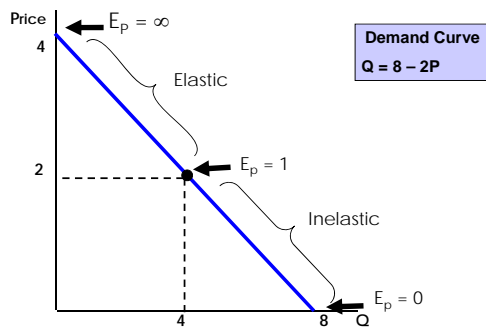
Price Elasticity of Demand

- When $E_p > 1$, the good is price elastic
 - $\% \Delta Q > \% \Delta P$
- When $E_p < 1$, the good is price inelastic
 - $\% \Delta Q < \% \Delta P$

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Price Elasticity of Demand



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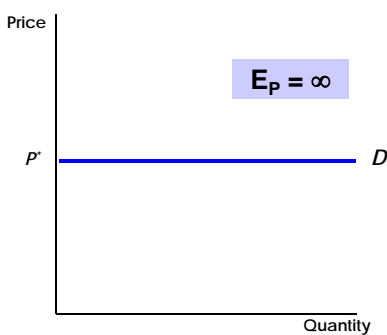
Price Elasticity of Demand

- Two extreme cases of demand curves
 - Completely inelastic demand – vertical
 - Infinitely elastic demand - horizontal

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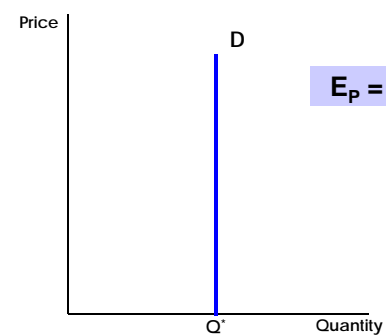
Infinitely Elastic Demand



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Completely Inelastic Demand



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Other Demand Elasticities

- ()
 - Measures how much quantity demanded changes with a change in income.

$$E_I = \frac{\Delta Q/Q}{\Delta I/I} = \frac{I}{Q} \frac{\Delta Q}{\Delta I}$$

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Other Demand Elasticities

- ()
 - Measures the percentage change in the quantity demanded of one good that results from a one percent change in the price of another good.

$$E_{Q_b P_m} = \frac{\Delta Q_b / Q_b}{\Delta P_m / P_m} = \frac{P_m}{Q_b} \frac{\Delta Q_b}{\Delta P_m}$$

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Other Demand Elasticities

- Complements: Cars and Tires
 - Cross elasticity of demand is negative
- Substitutes: Butter and Margarine
 - Cross elasticity of demand is positive

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Price Elasticity of Supply

- Measures the sensitivity of quantity supplied given a change in price
 - Measures the percentage change in quantity supplied resulting from a 1 percent change in price.

$$E_P^S = \frac{\% \Delta Q^S}{\% \Delta P}$$

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Q: Can Good News for Farming Be Bad News for Farmers?

- One day, KNU announces a major discovery.
- Researchers in its agronomy department have devised a new hybrid of wheat that raises the amount farmers can produce from each acre of land by 20 percent.
- Does this discovery make farmers better off?

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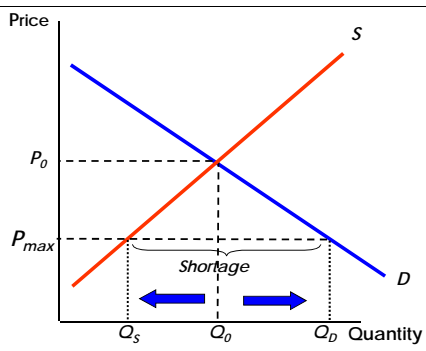
Q: Rent Control

- Chuncheon City decided to control rent around KNU campus for students.
- Are KNU students going to be better off?

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Effects of Price Controls



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