

Other Demand Elasticity Concepts

Chapter 6-3
How much of a shift?

Other Elasticity Concepts

- Other elasticities can be useful in specifying the effects of a shift factor of demand:
 - Income elasticity of demand.
 - Cross-price elasticity of demand.

Income Elasticity of Demand

- **Income elasticity of demand** – the percentage change in demand divided by the percentage change in income.

$$E_{Income} = \frac{\text{Percentage change in demand}}{\text{Percentage change in income}}$$

Income Elasticity of Demand

- Income elasticity of demand tells us the responsiveness of demand to changes in income.

Income Elasticity of Demand

- An increase in income generally increases one's consumption of almost all goods.
- The increase may be greater for some goods than for others.

Income Elasticity of Demand

- **Normal goods** are those whose consumption increases with an increase in income.
- They have income elasticities greater than zero.

Income Elasticity of Demand

- Normal goods are divided into luxuries and necessities.

Income Elasticity of Demand

- **Luxuries** are goods that have an income elasticity greater than one.
- Their percentage increase in demand is greater than the percentage increase in income.

Income Elasticity of Demand

- A **necessity** has an income elasticity less than 1.
- The consumption of a necessity rises by a smaller proportion than the rise in income.

Income Elasticity of Demand

- **Inferior goods** are those whose consumption decreases when income increases.
- Inferior goods have income elasticities less than zero.

Income Elasticities of Selected Goods

Product	Income elasticity	
	Short Run	Long Run
Motion pictures	0.81	3.41
Foreign travel	0.24	3.09
Tobacco products	0.21	0.86
Furniture	2.60	0.53
Jewelry and watches	1.00	1.64
Hard liquor	—	2.50
Private university tuition	—	1.10

Cross-Price Elasticity of Demand

- **Cross-price elasticity of demand** – the percentage change in demand divided by the percentage change in the price of another good.

$$E_{\text{Cross - Price}} = \frac{\text{Percentage change in demand}}{\text{Percentage change in price of a related good}}$$

Cross-Price Elasticity of Demand

- Cross-price elasticity of demand tells us the responsiveness of demand to changes in prices of other goods.

Complements and Substitutes

- **Substitutes** are goods that can be used in place of another.
- Substitutes have positive cross-price elasticities.

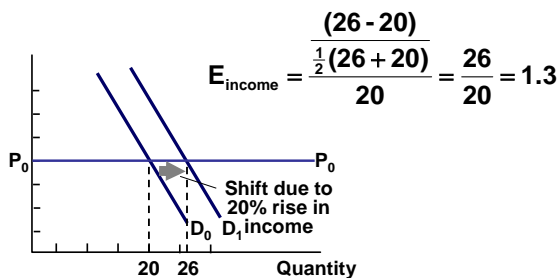
Complements and Substitutes

- **Complements** are goods that are used in conjunction with other goods.
- Complements have negative cross-price elasticities.

Cross-Price Elasticities

Commodities	Cross-Price Elasticity
Beef in response to price change in pork	0.11
Beef in response to price change in chicken	0.02
U.S. cars in response to price changes in European and Asian automobiles	0.28
European automobiles in response to price changes in U.S. and Asian automobiles	0.61
Beer in response to changes in wine	0.23
Hard liquor in response to price changes in beer	-0.11

Calculating Income Elasticity



Calculating Cross-Price Elasticity

