Intermediate Microeconomics. Lecture 9

Market Demand Curve

Oscar Gálvez-Soriano[1]

[1]University of Houston
Department of Economics

Summer 2021

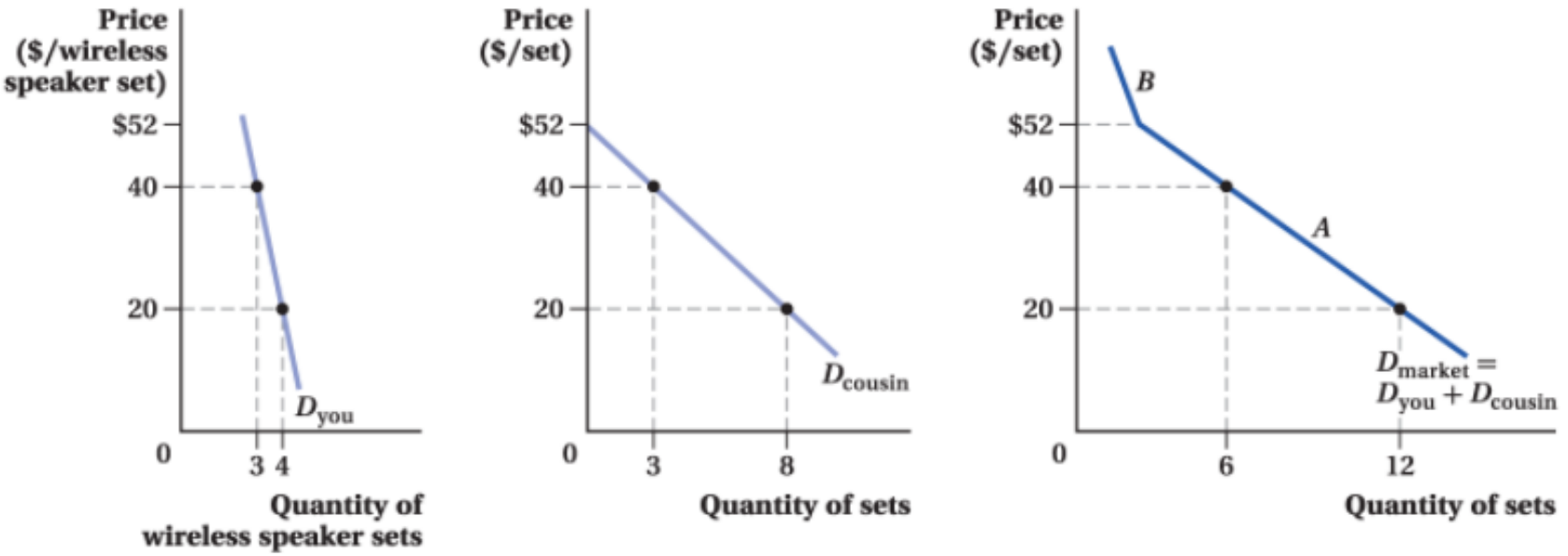
Contents

Contents

Market Demand Curve

- The market demand for a good is the sum of all the individual demand curves
- The market quantity demanded for a good at a particular price is the sum of every individual consumer's quantity demanded at that price
- The total market demand curve is obtained by summing horizontally each of the individual demand curves

Market Demand Curve



Goolsbee et al., *Microeconomics*, 3e, © 2020 Worth Publishers

Figure: Market Demand Curve

From Individual to Market Demand Curve

We can move from individual to market demand algebraically as well as graphically. Consider the following individual demands (shown in previous figure)

$$Q_{you} = 5 - 0.05P$$

$$Q_{cousin} = 13 - 0.25P$$

To find the market demand for the speakers, we start by adding up the two individual demand curves

$$Q_M = Q_{you} + Q_{cousin} = (5 - 0.05P) + (13 - 0.25P)$$

$$Q_M = 18 - 0.3P$$

From Individual to Market Demand Curve

- The prices at which you and your cousin will consume no speakers — the demand choke prices — are different
- Yours is \$100; your cousin's is \$52
- That means at prices above \$52, the market demand is only your demand because your cousin's quantity demanded is zero
- Therefore, market demand is your demand for prices between \$52 and \$100 and the sum of both individual demands for prices below \$52

Contents

Example

Suppose that at a rural gas station in Toby Acres, there are only two customers, Johnny and Olivia. They have the following individual demands

$$Q_J = 32 - 8P$$

$$Q_O = 20 - 4P$$

- Solve for the market demand equation for gasoline
- Draw a diagram showing the market demand curve for gasoline

Example

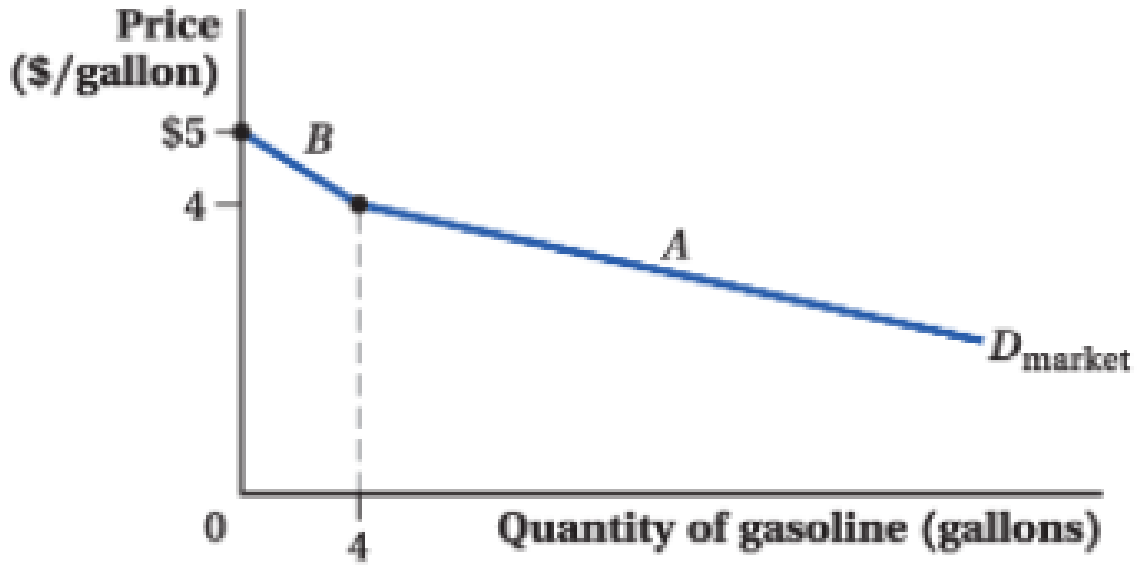
Market demand equation

$$Q_M = Q_J + Q_O = (32 - 8P) + (20 - 4P)$$

$$Q_M = 52 - 12P$$

Now, Johnny is not willing to buy any gas if the price is greater than or equal to \$4 because that is his demand choke price. So, once the price hits \$4 only Olivia will be in the market. Her demand choke price is \$5

Example



Goolsbee et al., *Microeconomics*, 3e, © 2020 Worth Publishers

Figure: Market Demand Curve