

# CHAPTER 6

## Consumer and Producer Surplus

# What you will learn in this chapter:

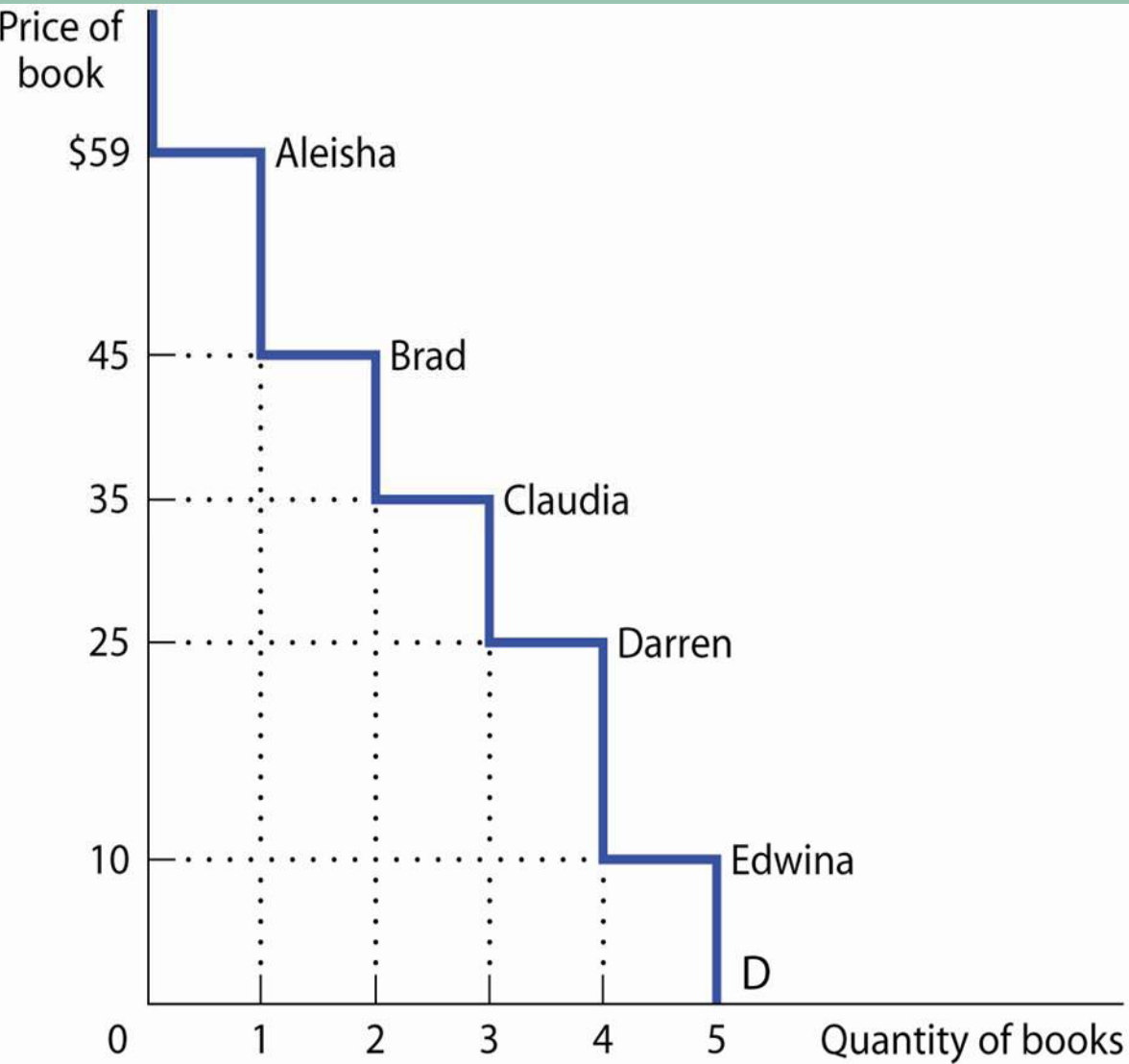
- ④ How much benefit do producers and consumers receive from the existence of a market?
- ④ How is the welfare of consumers and producers affected by changes in market prices?
- ④ How are these concepts related to demand and supply curve?
  - Consumer Surplus
  - Producer Surplus
  - Cost
  - Market Failure

# Consumer Surplus and the Demand Curve

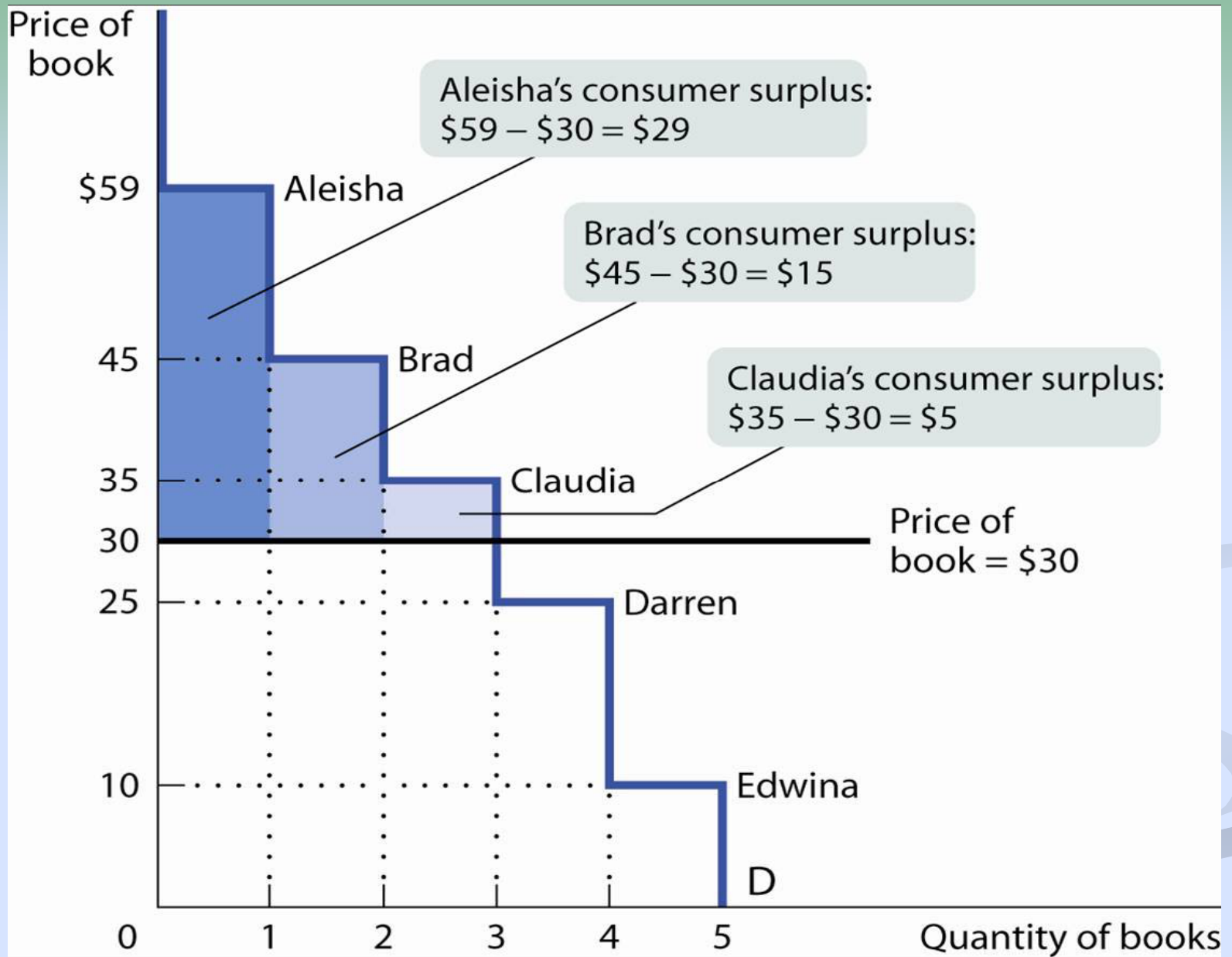
**Individual consumer surplus** is the net gain to an individual buyer from the purchase of a good. It is equal to the difference between the buyer's willingness to pay and the price paid.

**Total producer surplus** in a market is the sum of the individual producer surpluses of all the sellers of a good.

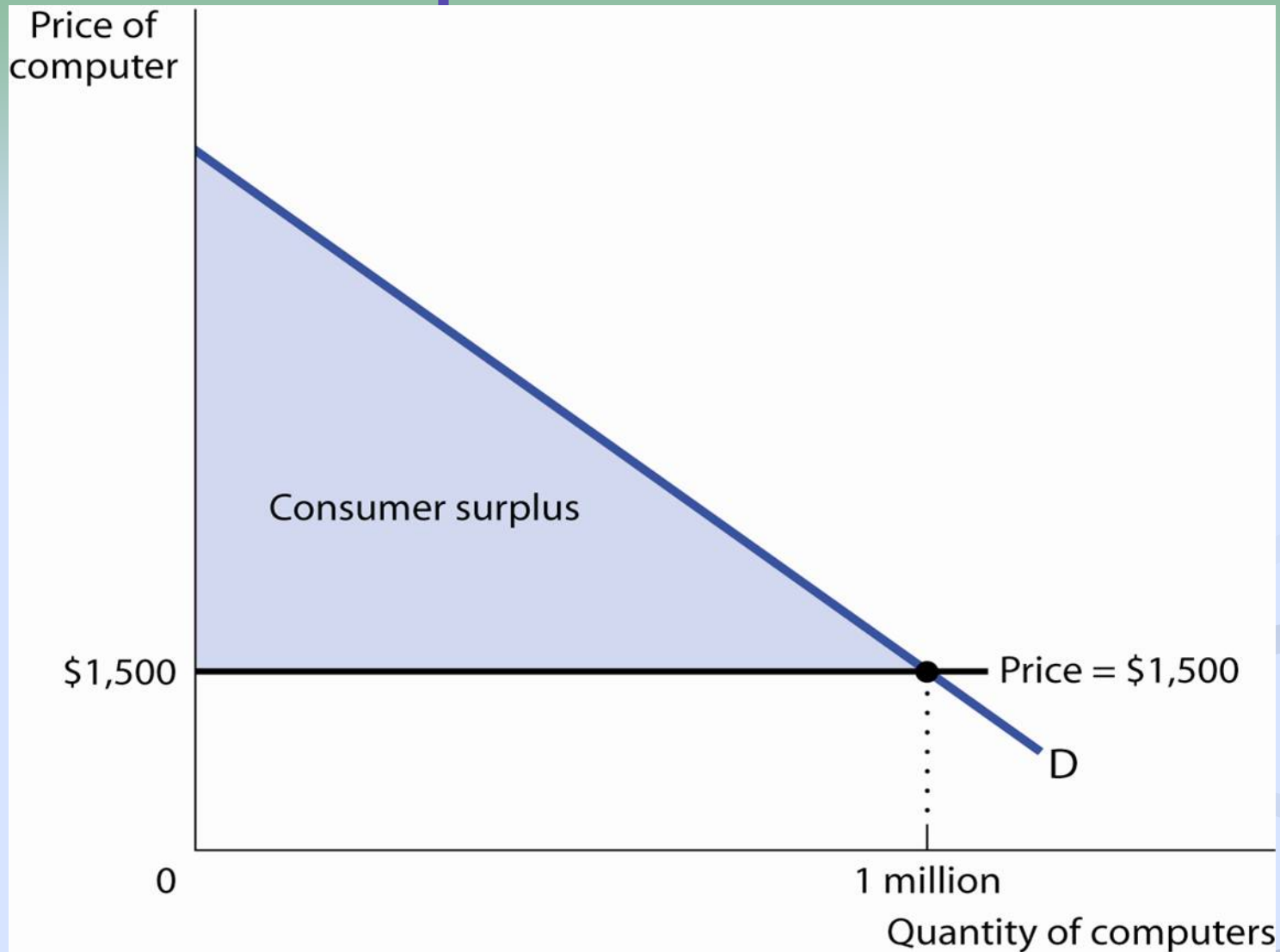
# The Demand Curve for Used Textbooks



Potential buyers	Willingness to pay
Aleisha	\$59
Brad	45
Claudia	35
Darren	25
Edwina	10

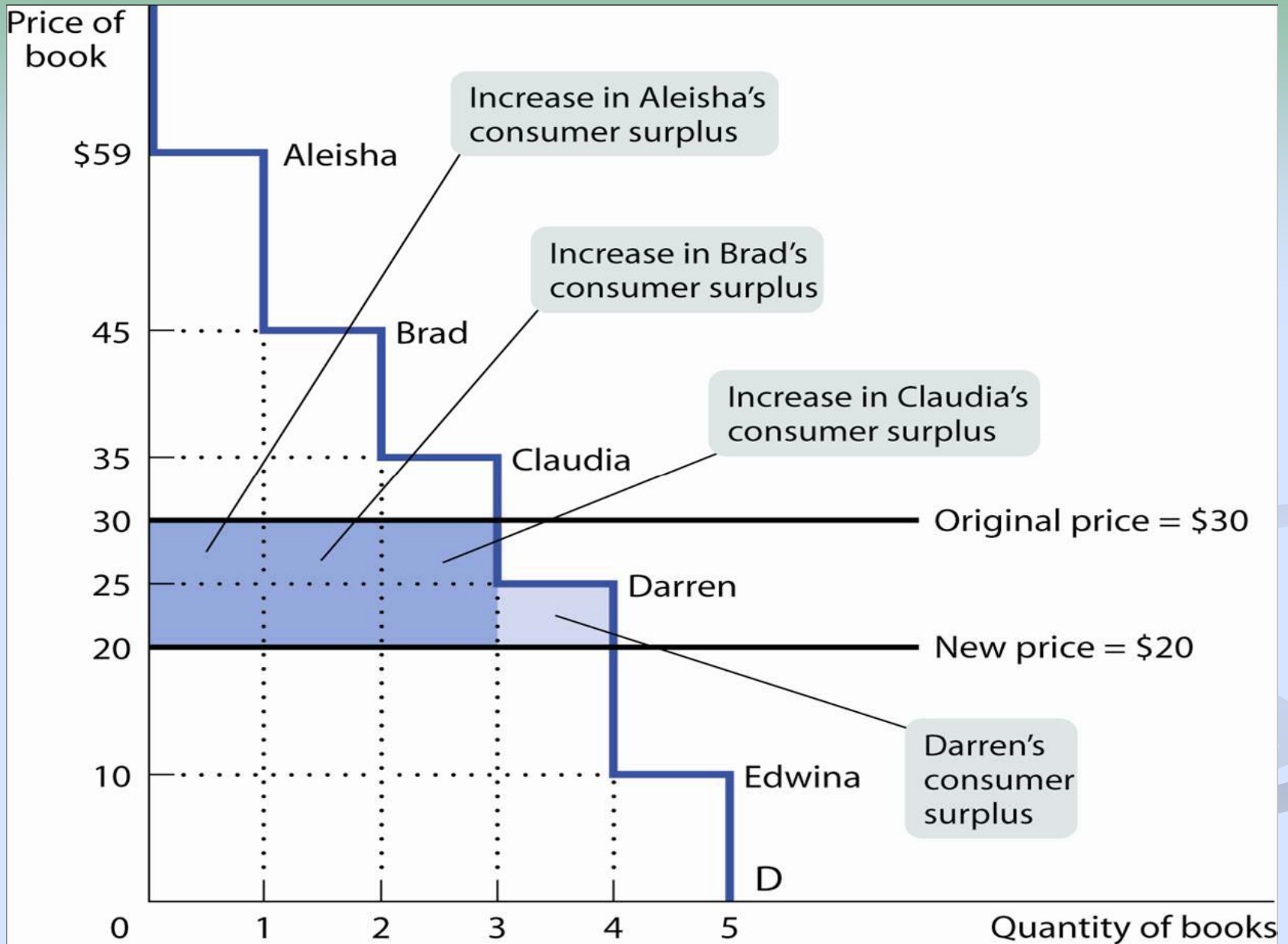


# Consumer Surplus

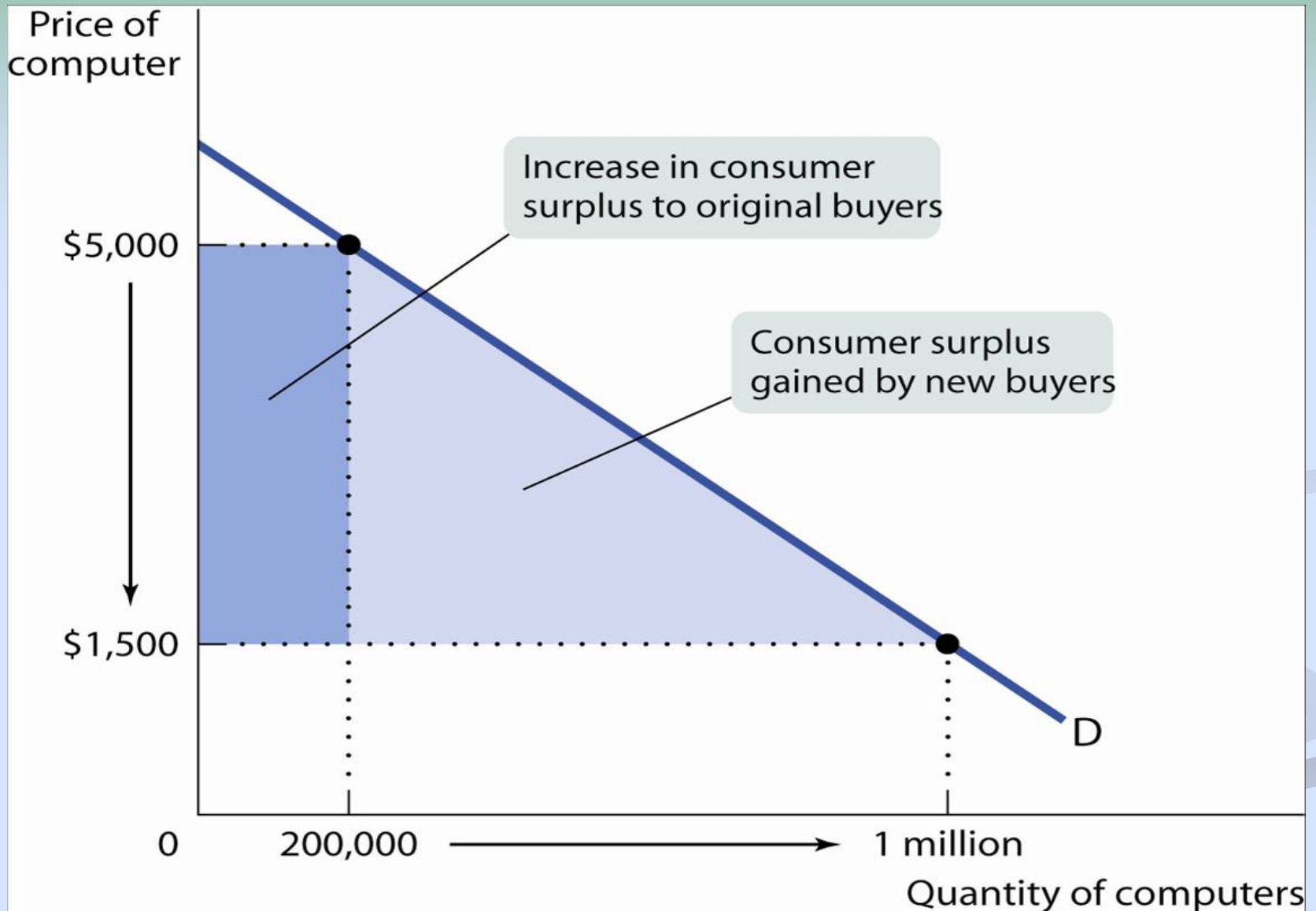


The total consumer surplus generated by purchases of a good at a given price is equal to the area below the demand curve but above that price.

# A Fall in the Price of Used Textbooks



# A Fall in the Market Price Increases Consumer Surplus





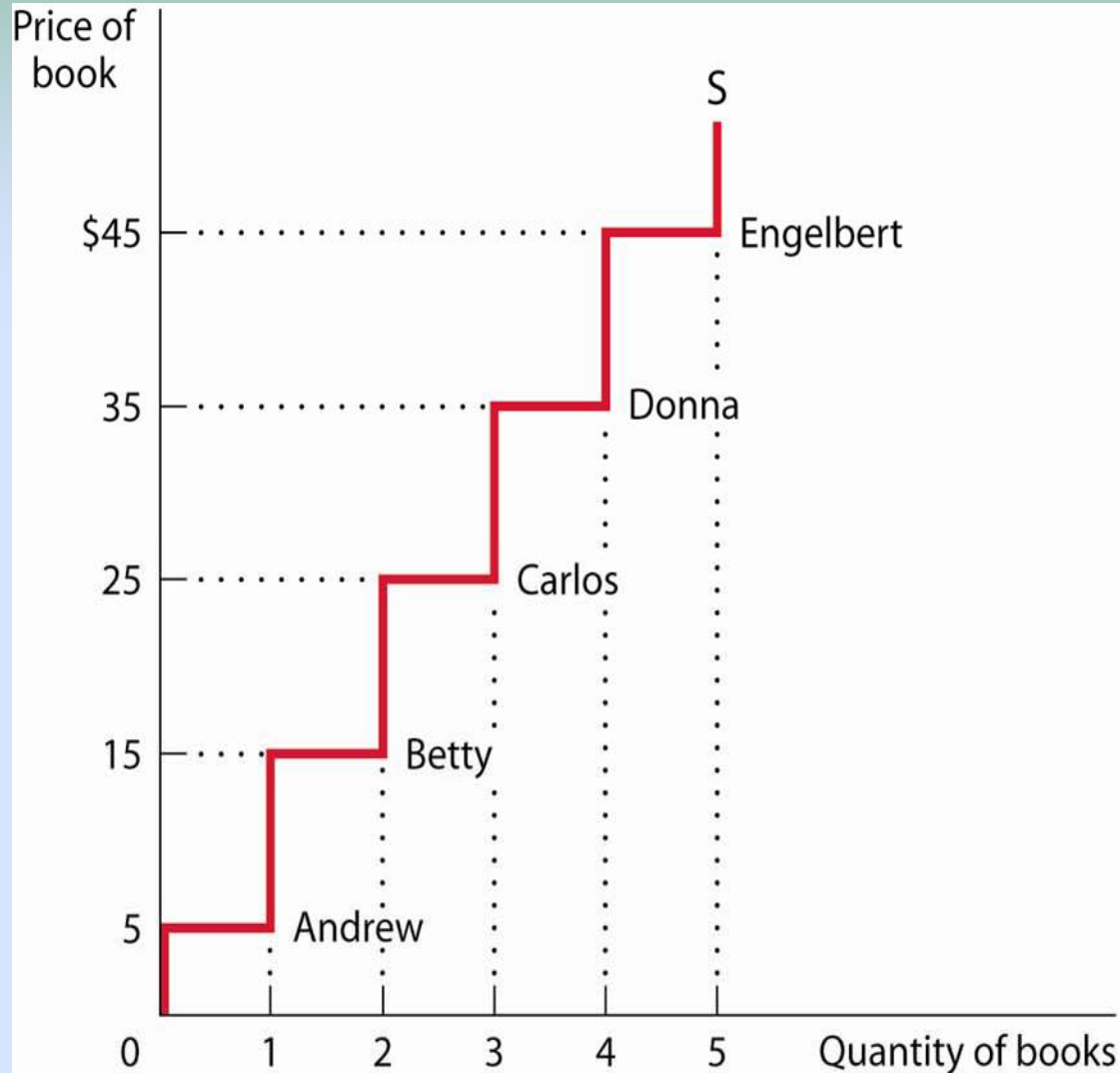
# Producer Surplus and the Supply Curve

A potential seller's **cost** is the lowest price at which he or she is willing to sell a good.

**Individual producer surplus** is the net gain to a seller from selling a good. It is equal to the difference between the price received and the seller's cost.

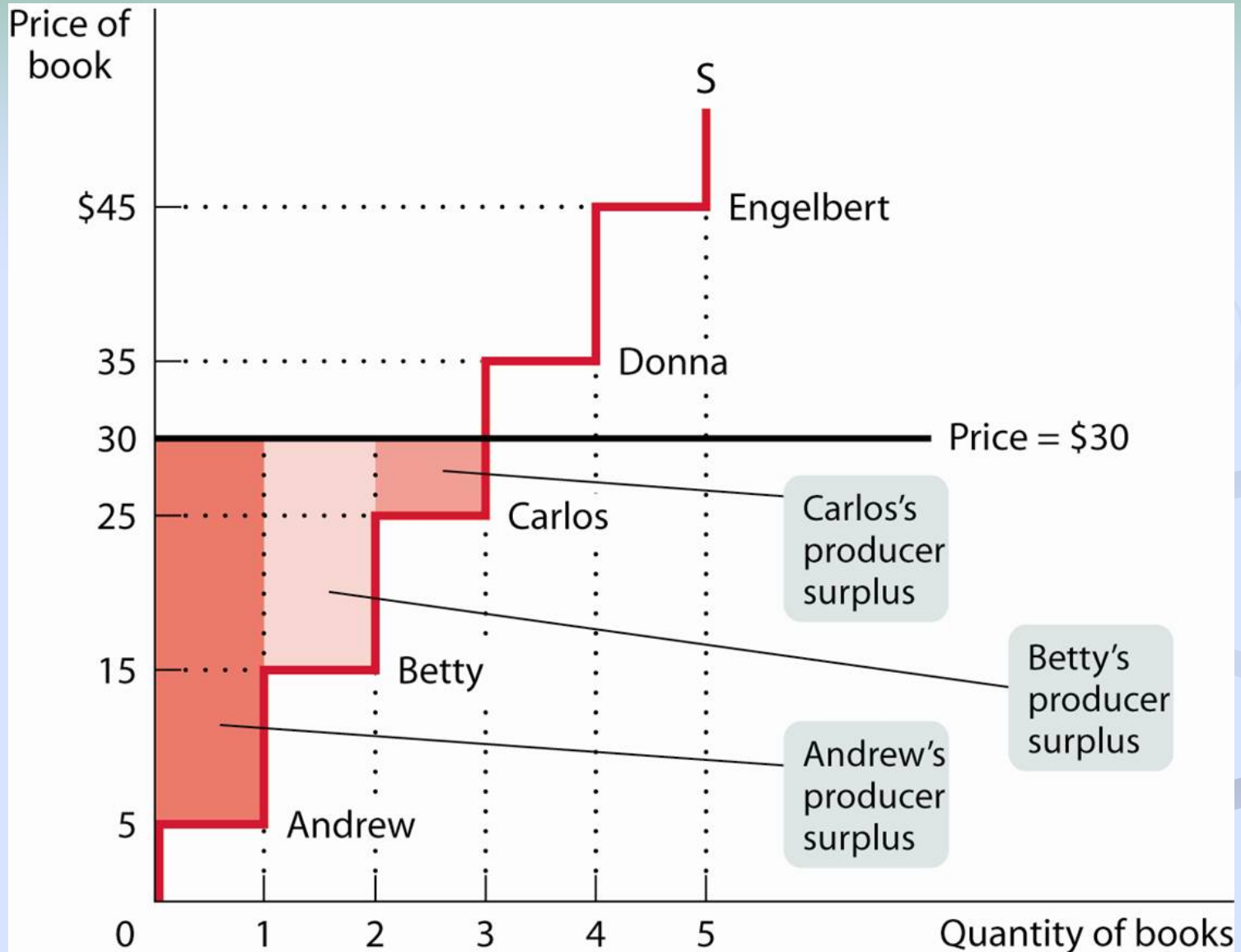
**Total producer surplus** in a market is the sum of the individual producer surpluses of all the sellers of a good.

# The Supply Curve for Used Textbooks

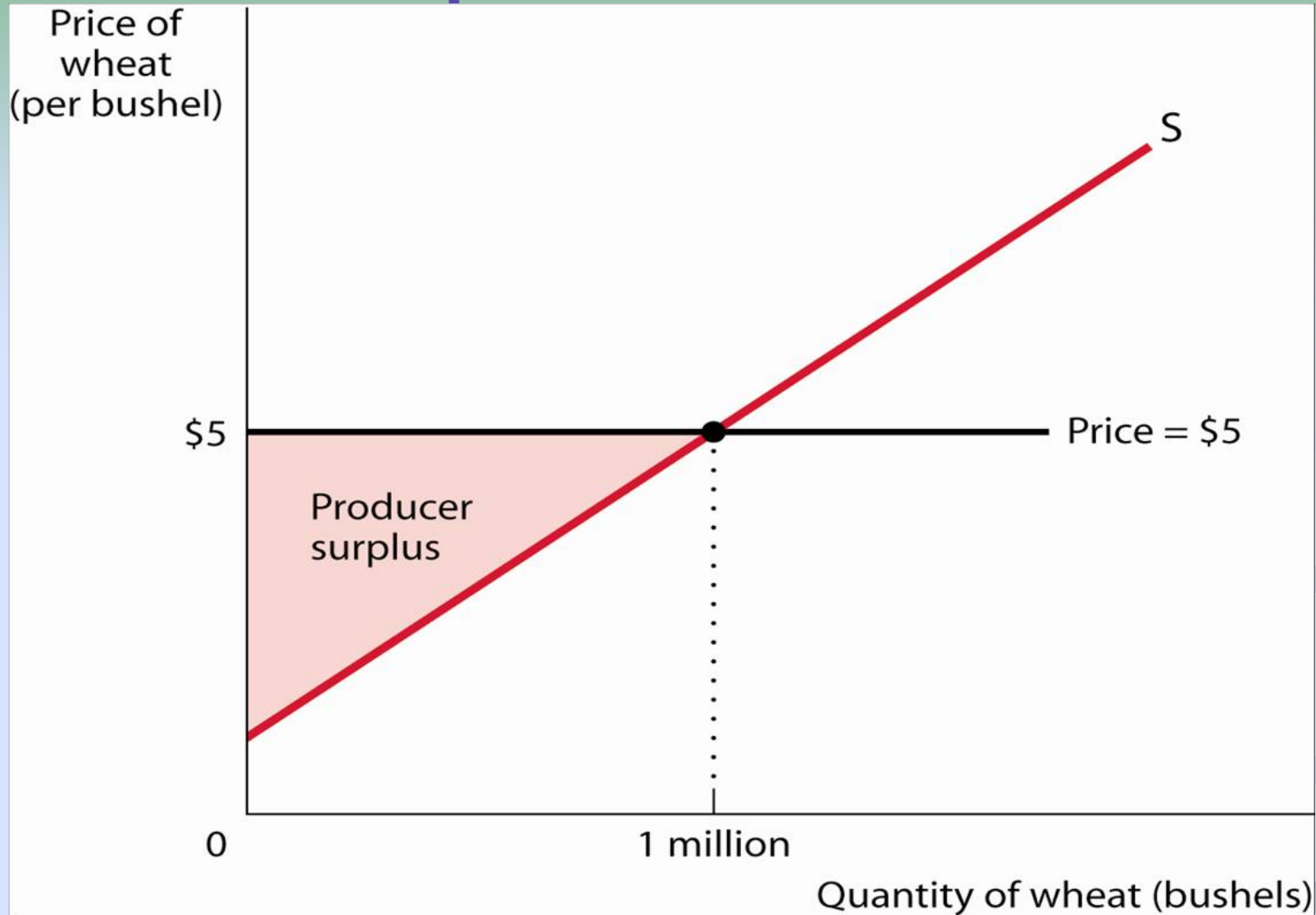


Potential sellers	Cost
Andrew	\$5
Betty	15
Carlos	25
Donna	35
Engelbert	45

# Producer Surplus in the Used-Textbook Market

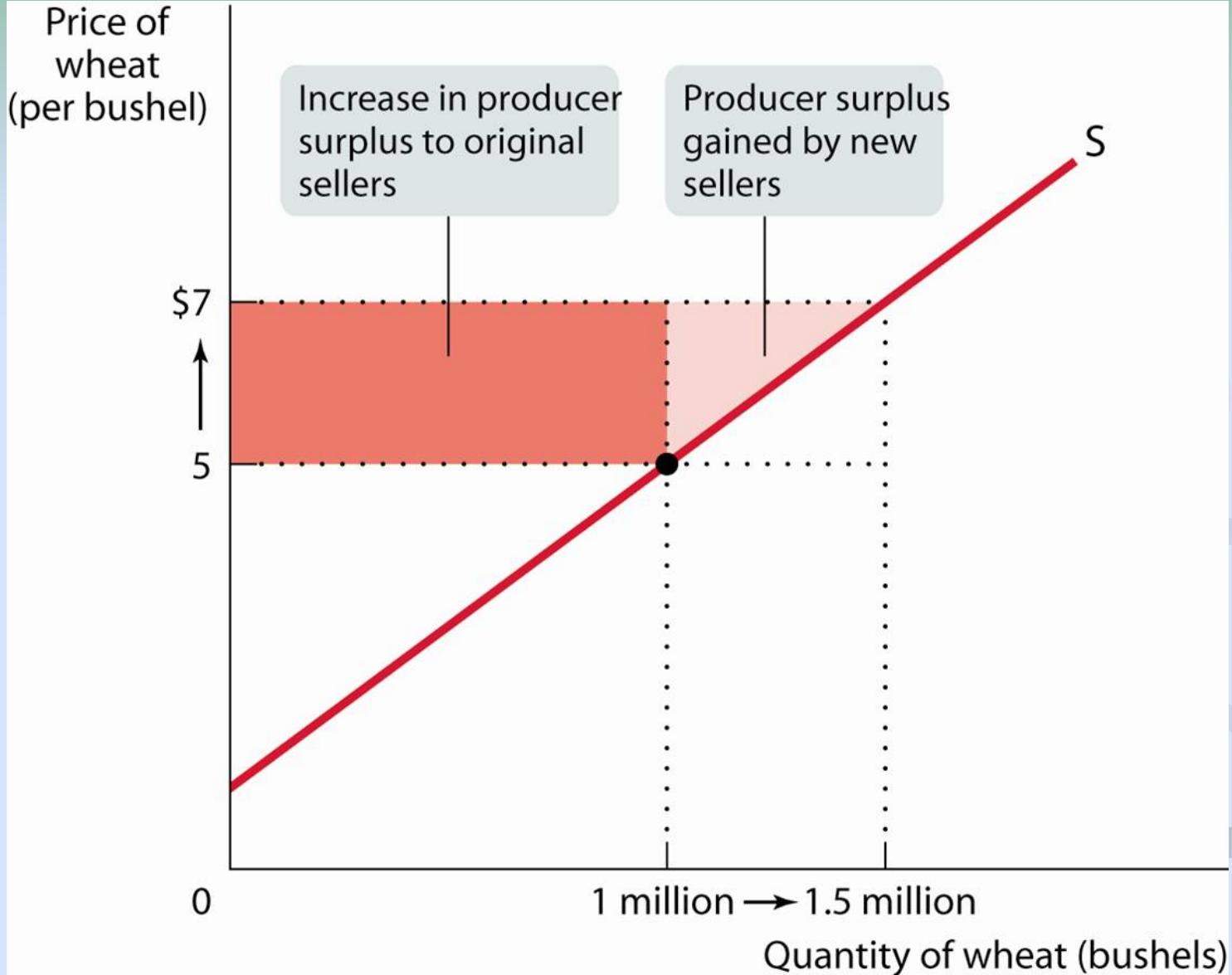


# Producer Surplus



The total producer surplus from sales of a good at a given price is the area above the supply curve but below that price.

# A Rise in Price Increases Producer Surplus

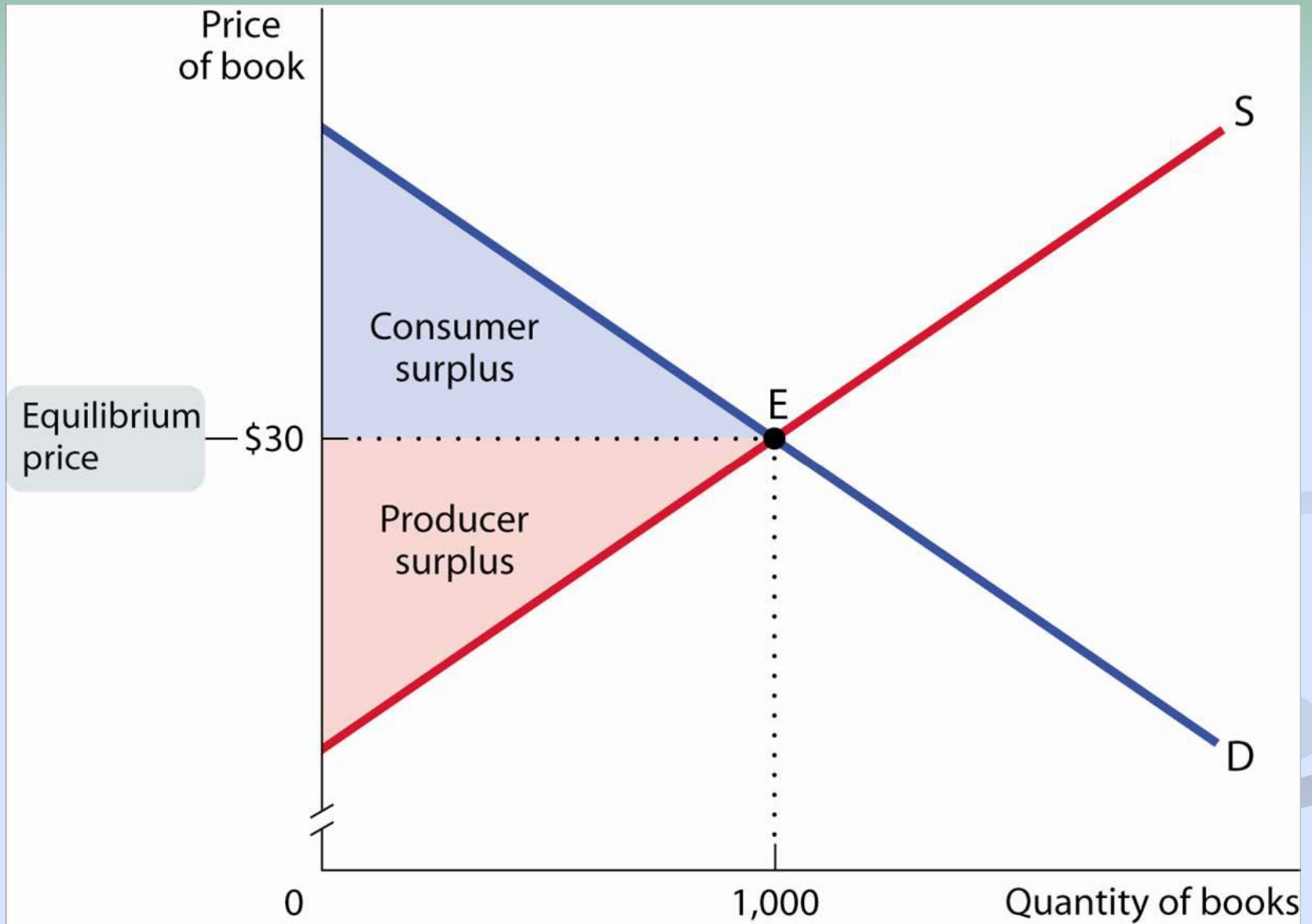


## Putting it together: Total Surplus

The **total surplus** generated in a market is the total net gain to consumers and producers from trading in the market. It is the sum of the producer and the consumer surplus.

The concepts of consumer surplus and producer surplus can help us understand why markets are an effective way to organize economic activity.

# Total Surplus



# Consumer Surplus, Producer Surplus, Gains from Trade and Efficiency of Markets

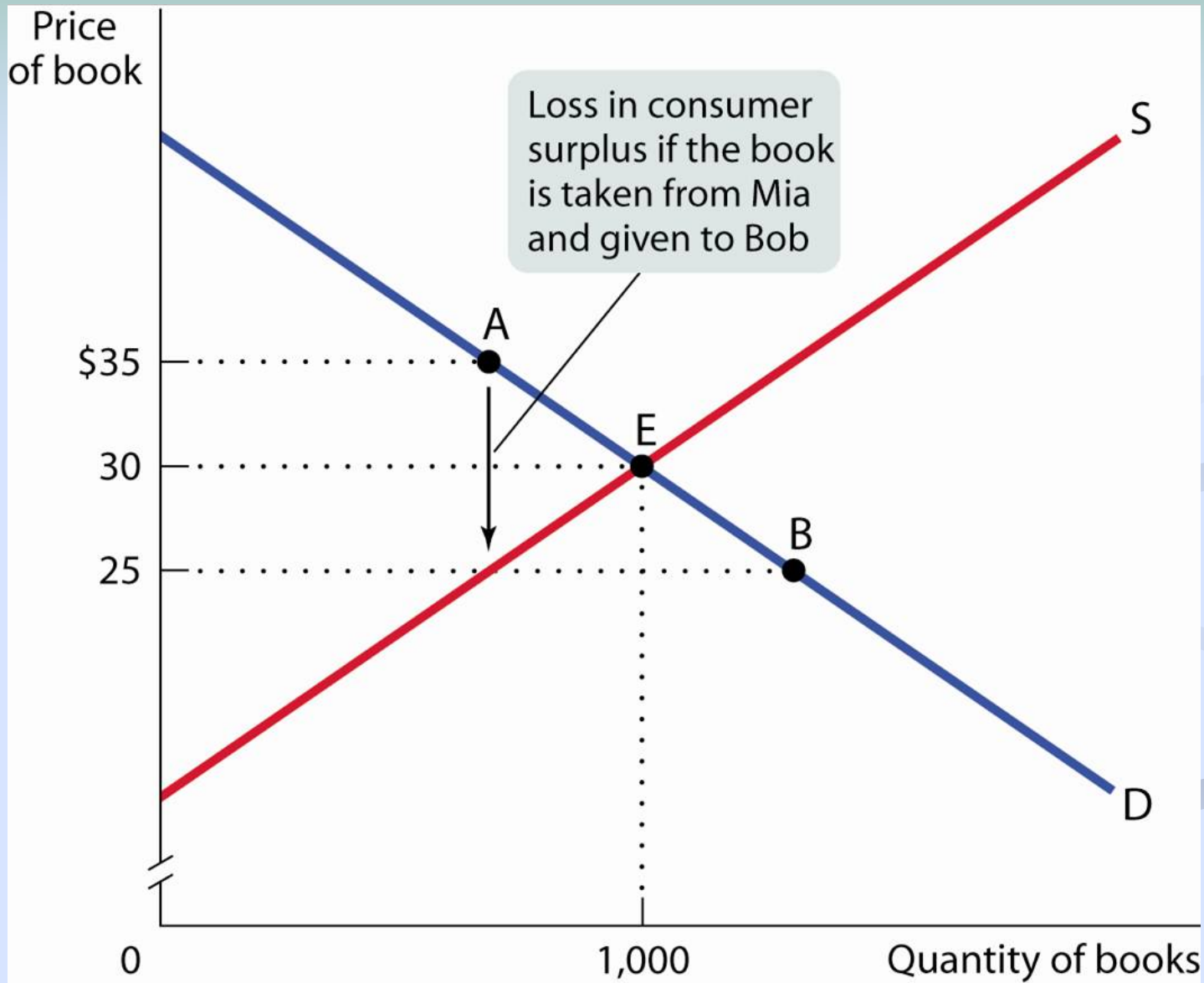
Both consumers and producers are better off because there is a market in this good, i.e. there are *gains from trade*.

The maximum possible total surplus (highest possible gain to society) is achieved at market equilibrium.

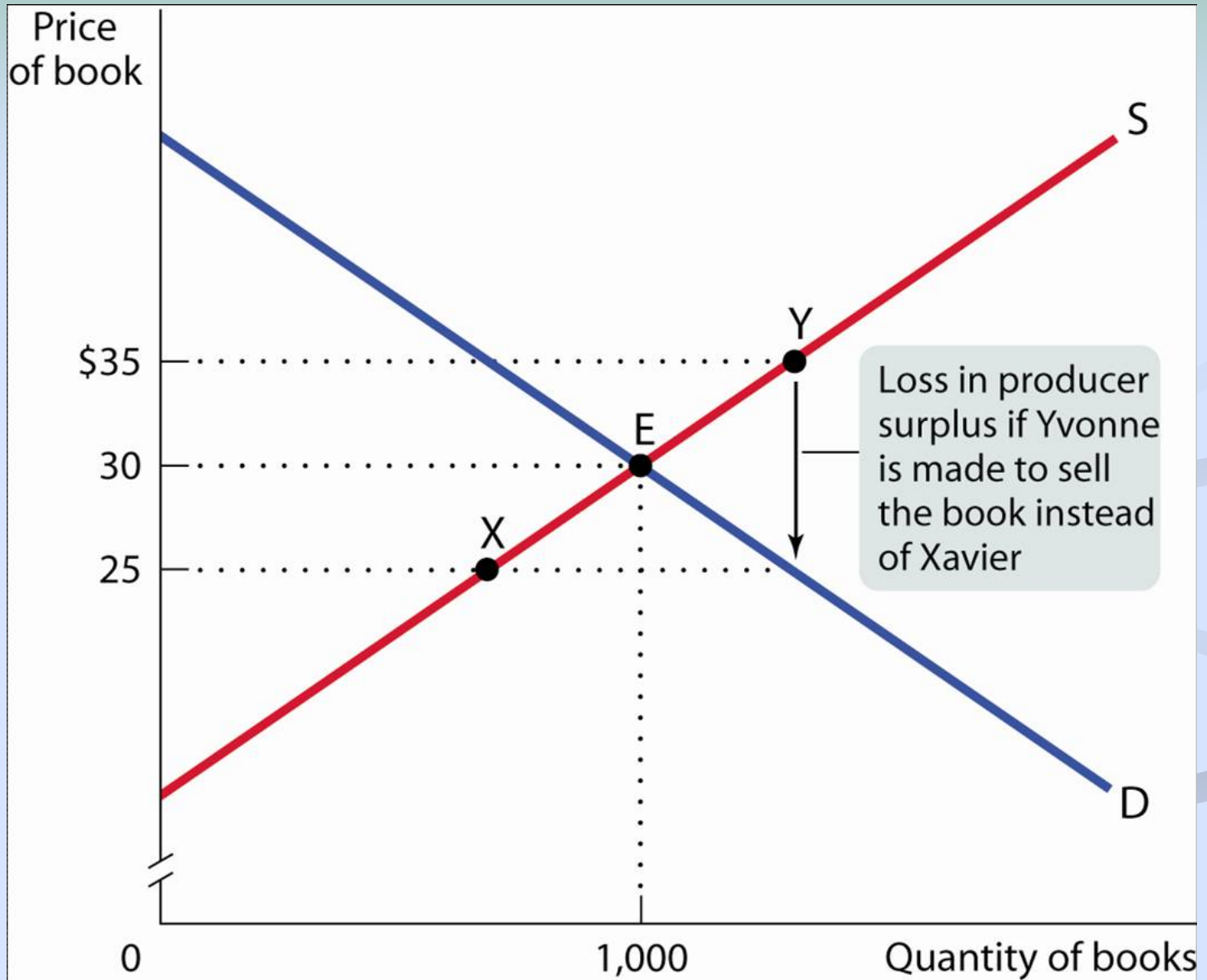
In the market equilibrium there is no way to make some people better off without making others worse off → markets are efficient.



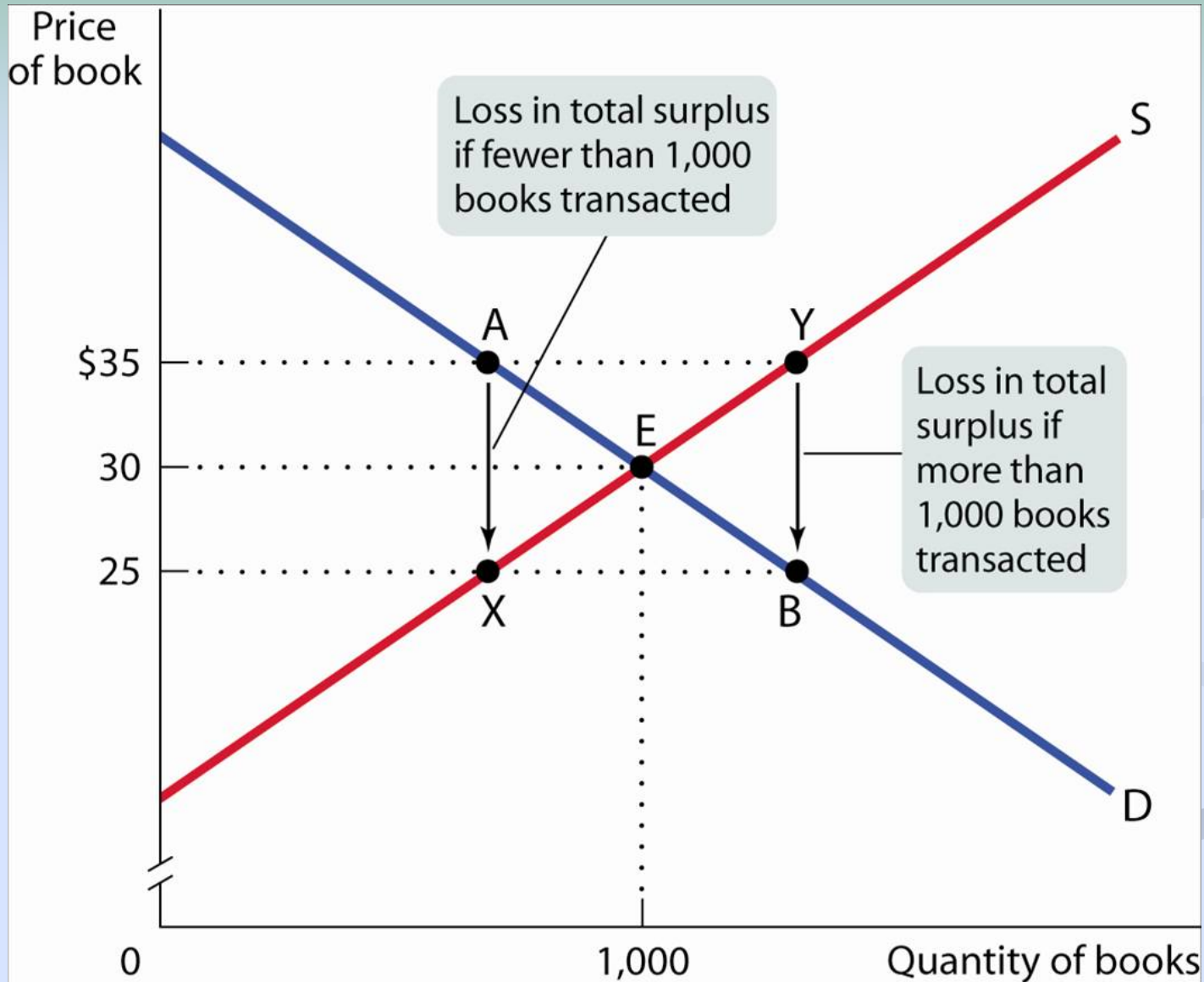
# Reallocating Consumption Lowers Consumer Surplus



# Reallocating Sales Lowers Producer Surplus



# Changing the Quantity Lowers Total Surplus



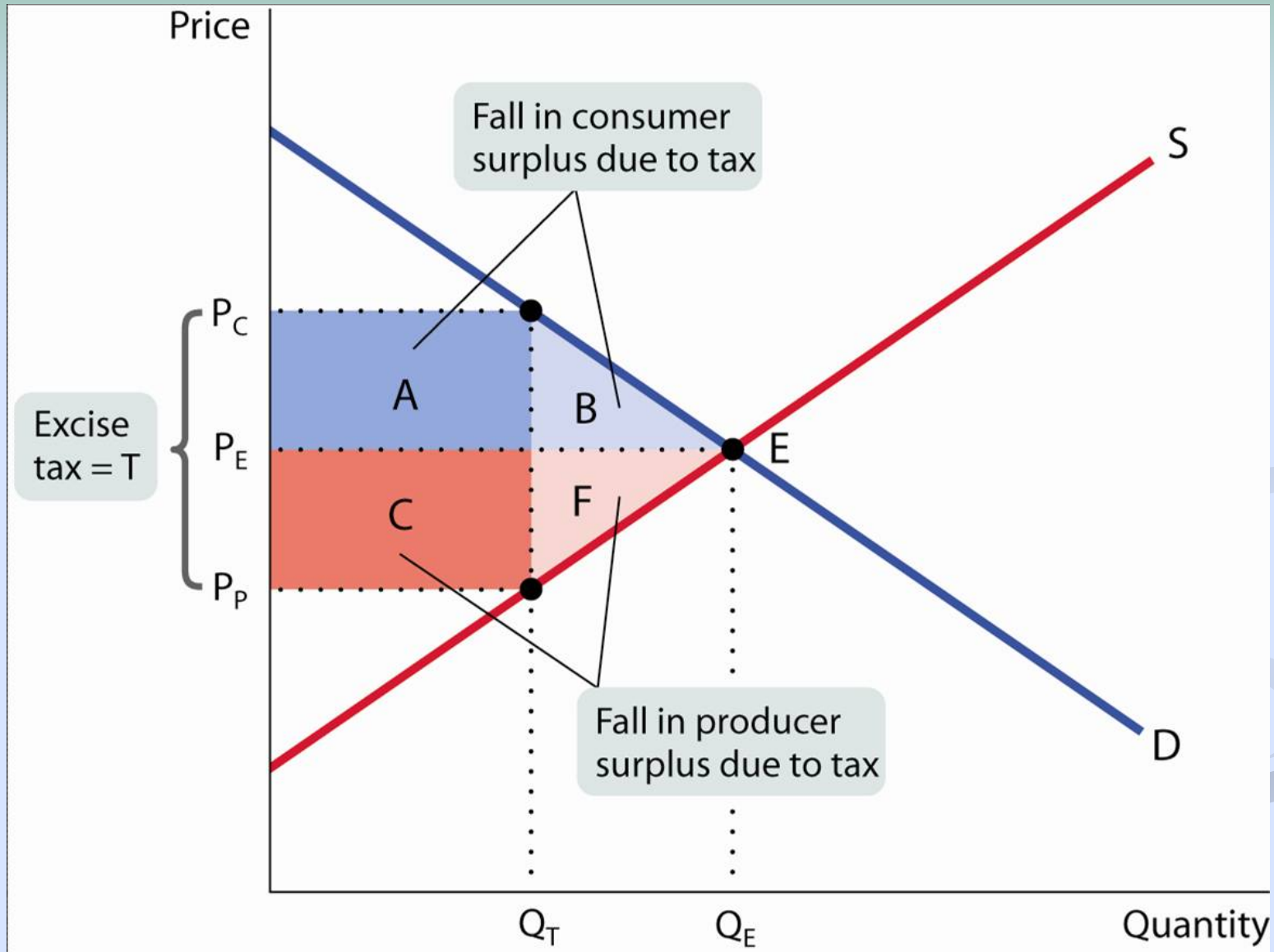
# The market equilibrium maximizes total surplus because the market performs four important functions:

1. It allocates consumption of the good to the potential buyers who value it the most.
2. It allocates sales to the potential sellers who most value the right to sell the good.
3. It ensures that every consumer who makes a purchase values the good more than every seller who makes a sale.
4. It ensures that every potential buyer who doesn't make a purchase values the good less than every potential seller who doesn't make a sale.

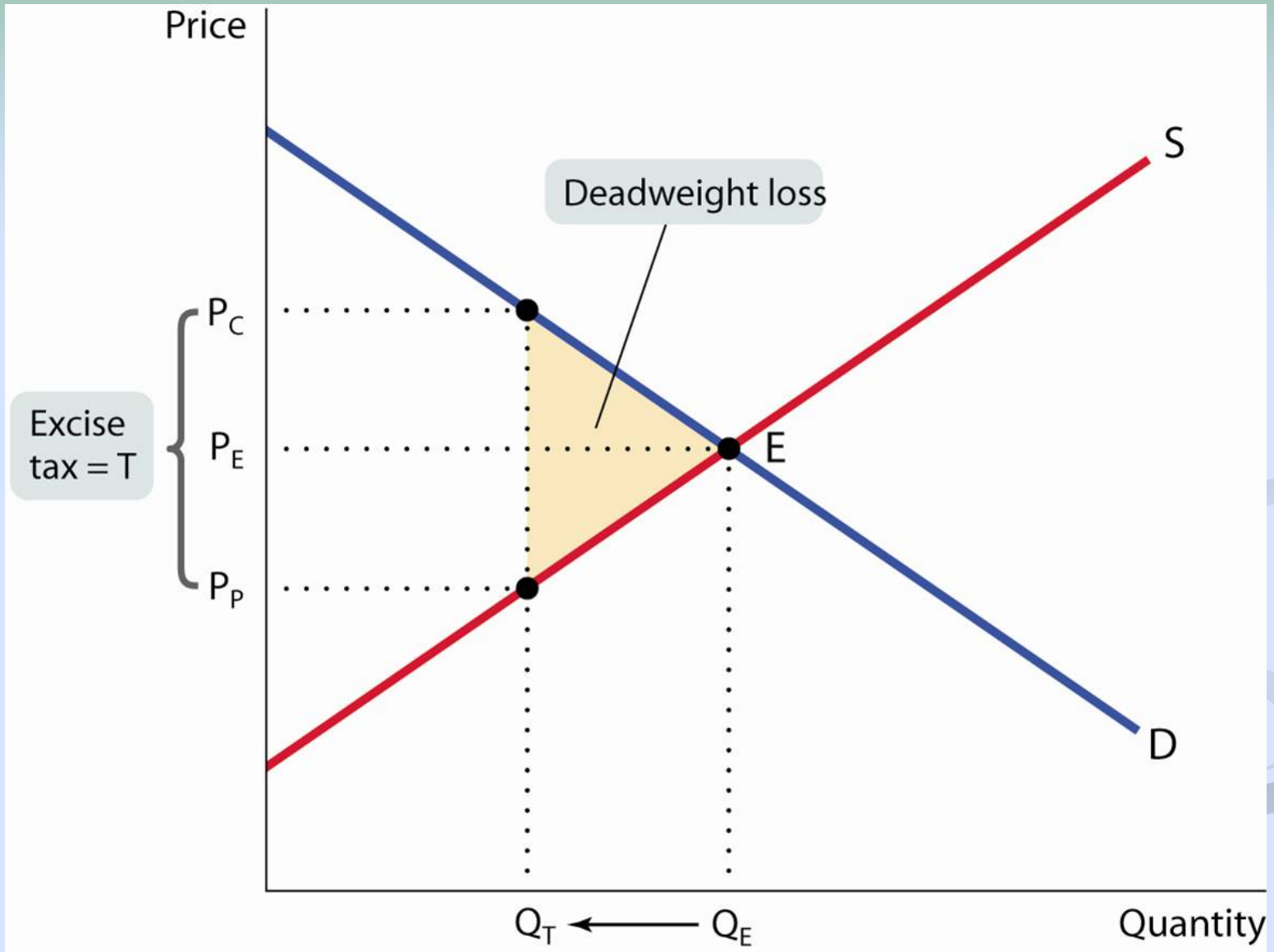
# Applying Consumer and Producer Surplus: The Efficiency Costs of a Tax

- A tax causes a ***deadweight loss*** to society, because less of the good is produced and consumed than in the absence of the tax. As a result, some mutually beneficial trades between producers and consumers do not take place.

# A Tax Reduces Consumer and Producer Surplus



# The Deadweight Loss of a Tax



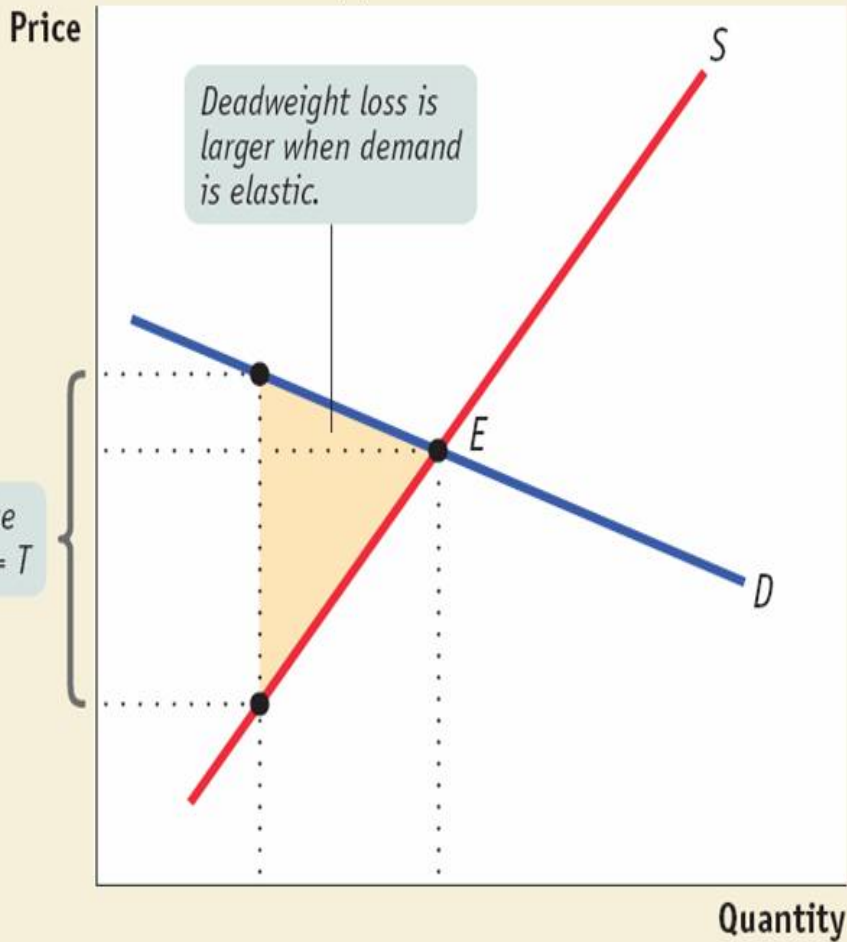
# Deadweight Loss and Elasticities

The general rule for economic policy is that other things equal, you want to choose the policy that produces the smallest deadweight loss. But how can we predict the size of the deadweight loss associated with a given policy?

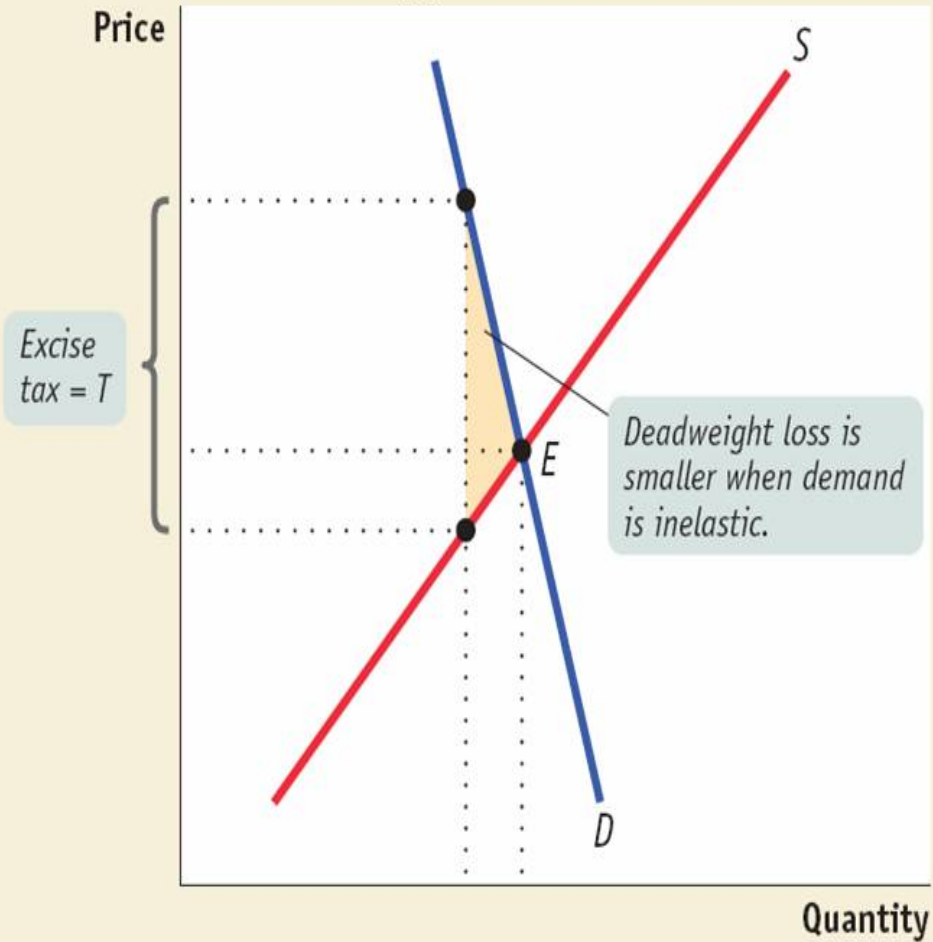
For a tax imposed when demand or supply, or both, is inelastic will cause a relatively small decrease in quantity transacted and a small deadweight loss.



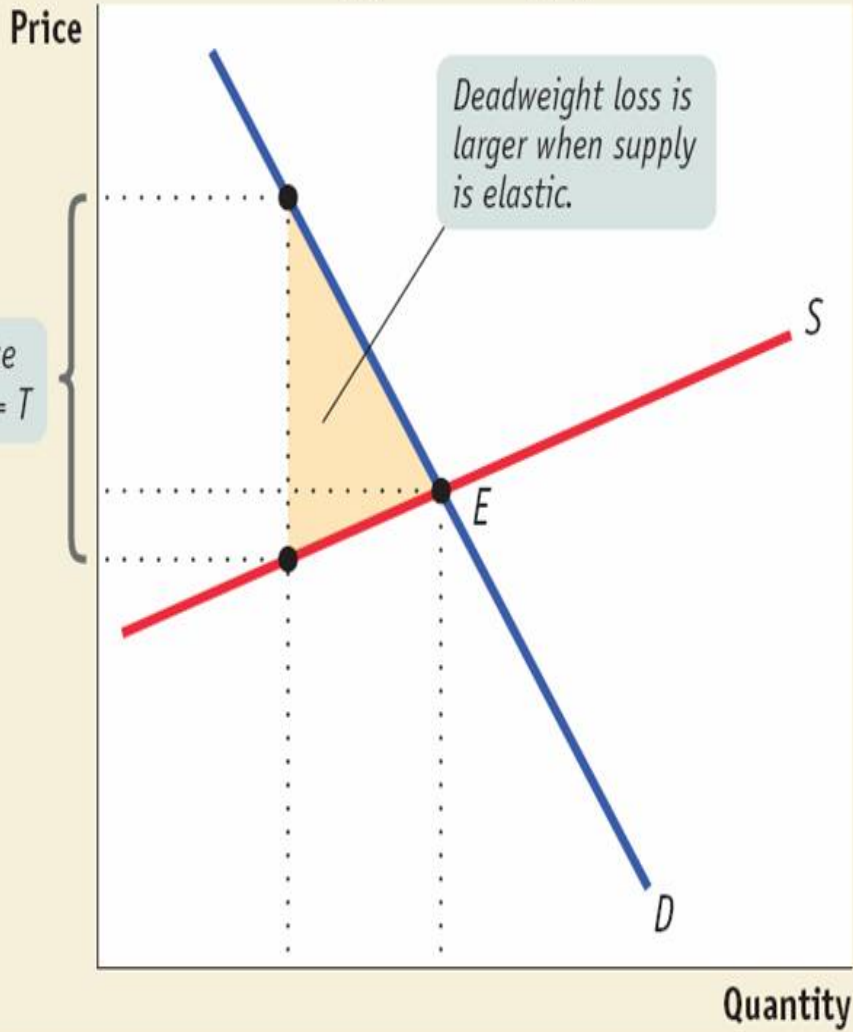
(a) Elastic Demand



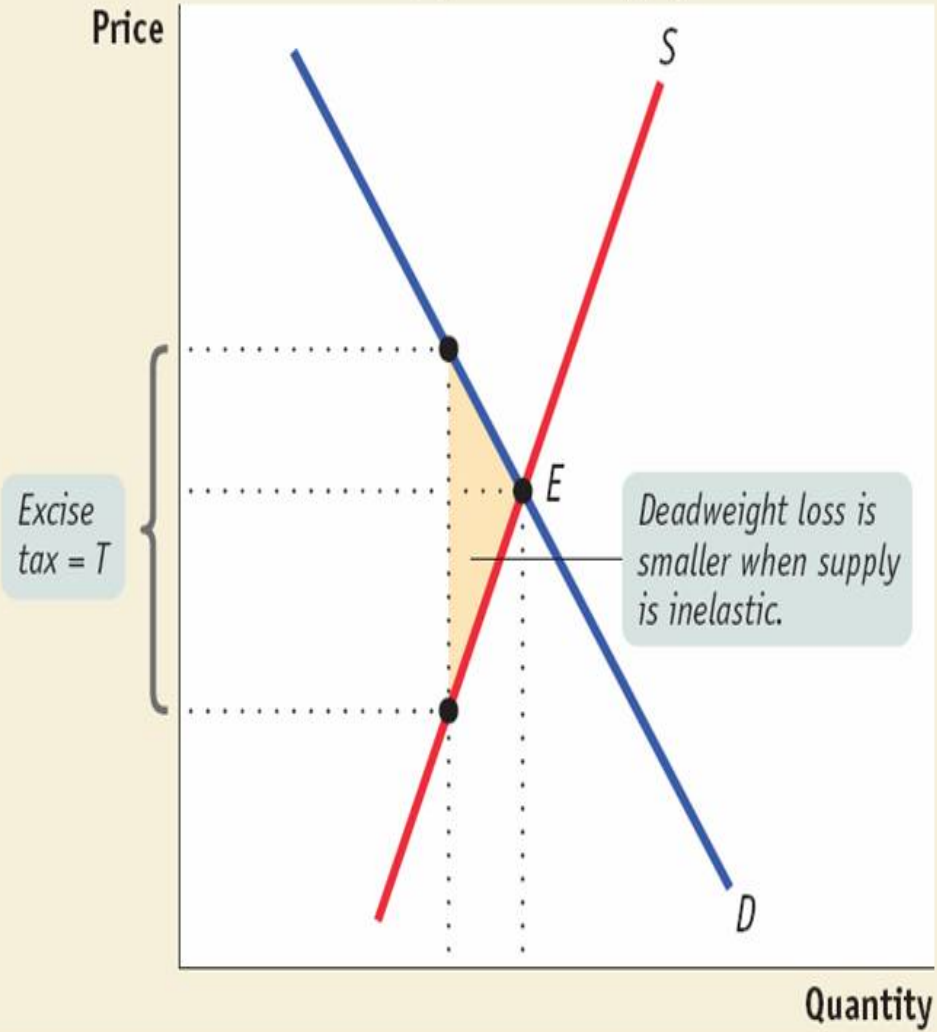
(b) Inelastic Demand



(c) Elastic Supply



(d) Inelastic Supply



# The End of Chapter 6

coming attraction:

## **Chapter 7: Making Decisions**