SUPPLY AND DEMAND:
- MARKETS AND WELFARE

Consumers, Producers, and the Efficiency of Markets

REVISITING THE MARKET EQUILIBRIUM

- Do the equilibrium price and quantity maximize the total welfare of buyers and sellers?
- Market equilibrium reflects the way markets allocate scarce resources.
- Whether the market allocation is desirable can be addressed by welfare economics.

Welfare Economics

- ***Welfare economics*** is the study of how the allocation of resources affects economic well-being.
- Buyers and sellers receive benefits from taking part in the market.
- The equilibrium in a market maximizes the total welfare of buyers and sellers.

Welfare Economics

- Equilibrium in the market results in maximum benefits, and therefore maximum total welfare for both the consumers and the producers of the product.

Welfare Economics

- Consumer surplus measures economic welfare from the buyer’s side.
- Producer surplus measures economic welfare from the seller’s side.

CONSUMER SURPLUS

- ***Willingness to pay*** is the maximum amount that a buyer will pay for a good.
- It measures how much the buyer values the good or service.

CONSUMER SURPLUS

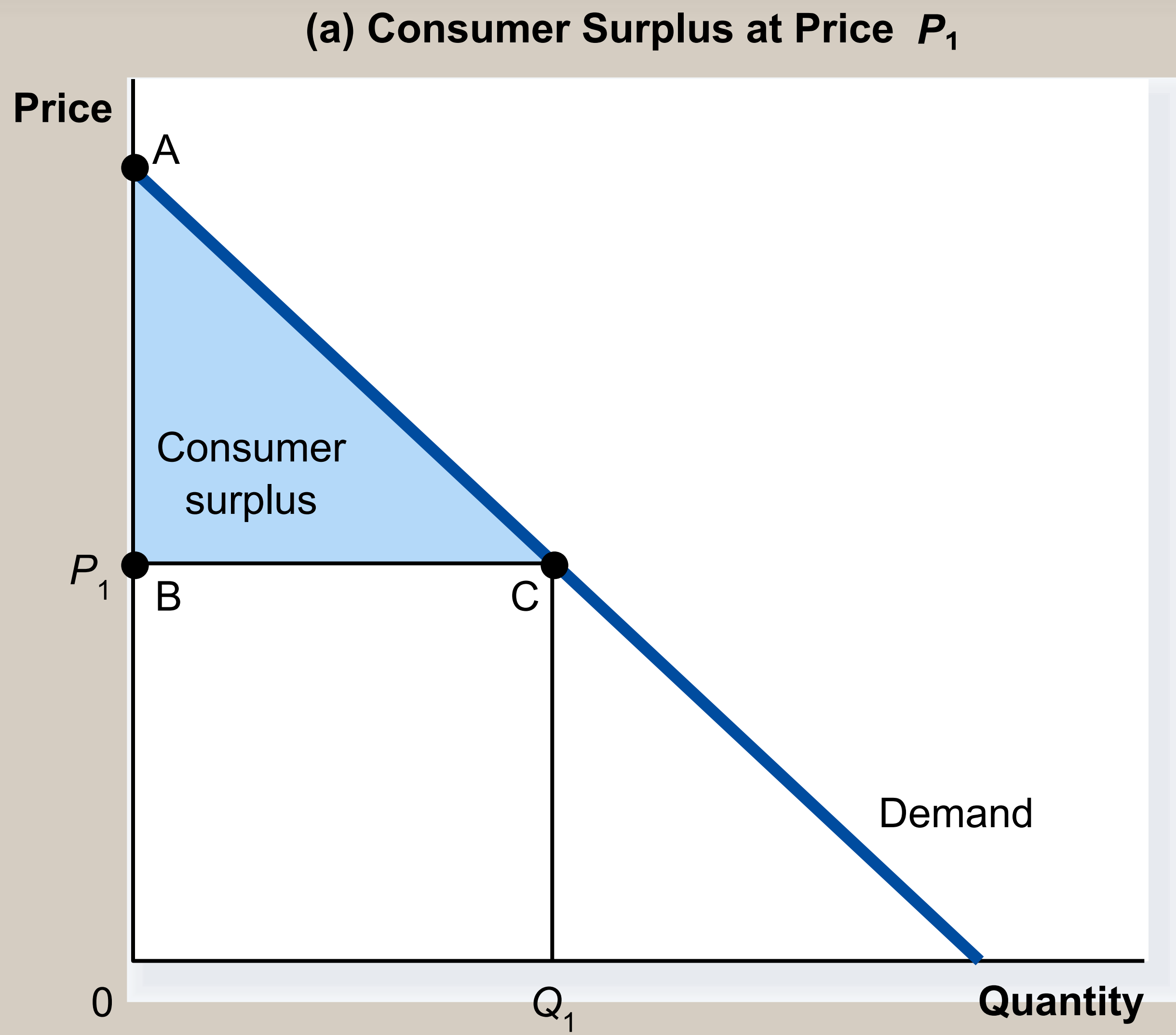
- ***Consumer surplus*** is the buyer's willingness to pay for a good minus the amount the buyer actually pays for it.

CONSUMER SURPLUS

- The market demand curve depicts the various quantities that buyers would be willing and able to purchase at different prices.

- The area below the demand curve and above the price measures the consumer surplus in the market.

How the Price Affects Consumer Surplus



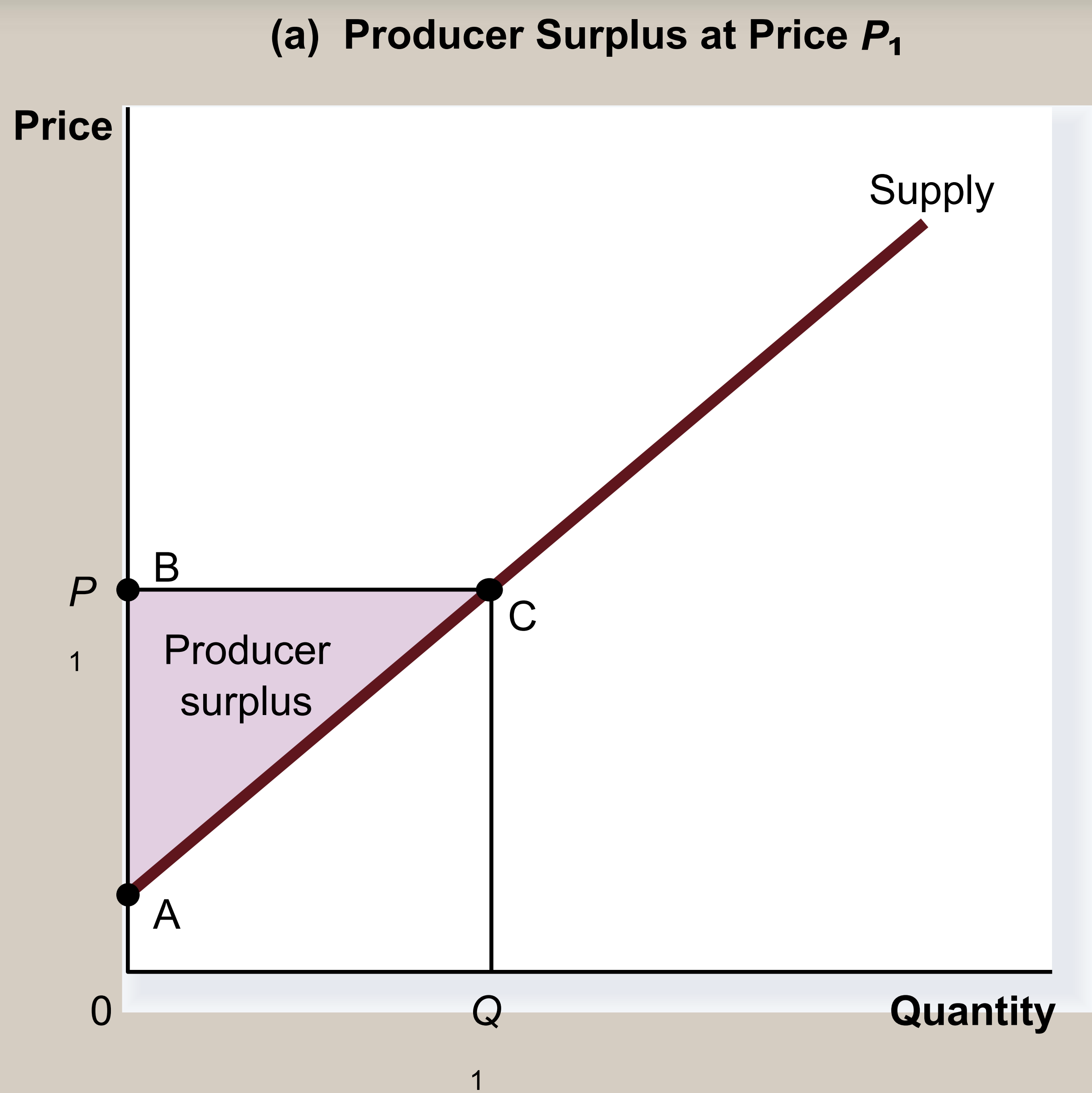
- ***Consumer surplus*, **the amount that buyers are willing to pay for a good minus the amount they actually pay for it, measures the benefit that buyers receive from a good *as the buyers themselves perceive it.*

PRODUCER SURPLUS

- ***Producer surplus*** is the amount a seller is paid for a good minus the seller's *cost.*
- It measures the benefit to sellers participating in a market.

- Just as consumer surplus is related to the demand curve, producer surplus is closely related to the supply curve.

How the Price Affects Producer Surplus



MARKET EFFICIENCY

- Consumer surplus and producer surplus may be used to address the following question:

  - Is the allocation of resources determined by free markets in any way desirable?

MARKET EFFICIENCY

Consumer Surplus

= Value to buyers – Amount paid by buyers

and

Producer Surplus

= Amount received by sellers – Cost to sellers

MARKET EFFICIENCY

Total surplus

= Consumer surplus + Producer surplus

or

Total surplus

= Value to buyers – Cost to sellers

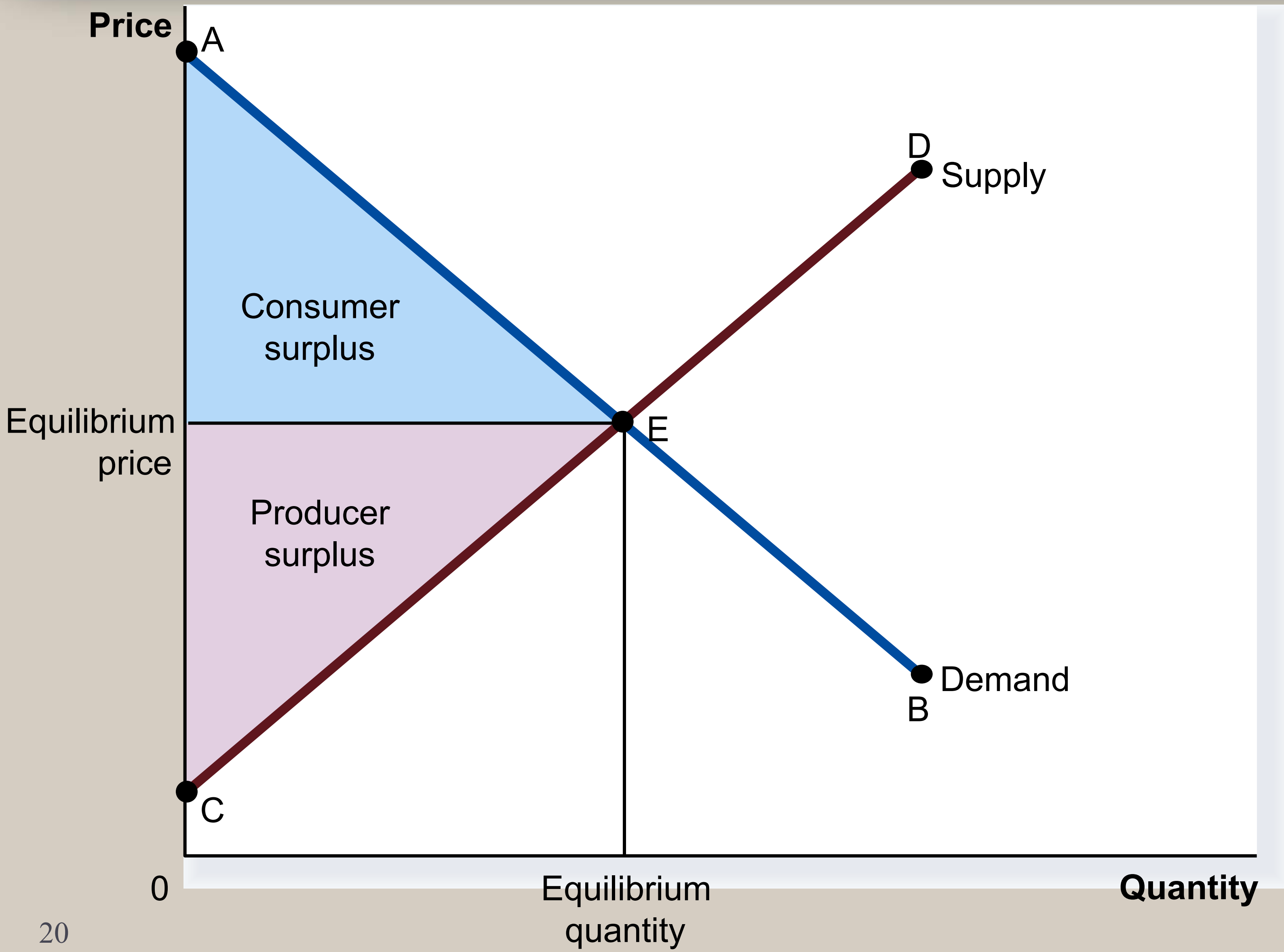
MARKET EFFICIENCY

- ***Efficiency*** is the property of a resource allocation of maximizing the total surplus received by all members of society.

MARKET EFFICIENCY

- In addition to market efficiency, a social planner might also care about ***equity*** – the fairness of the distribution of well-being among the various buyers and sellers.

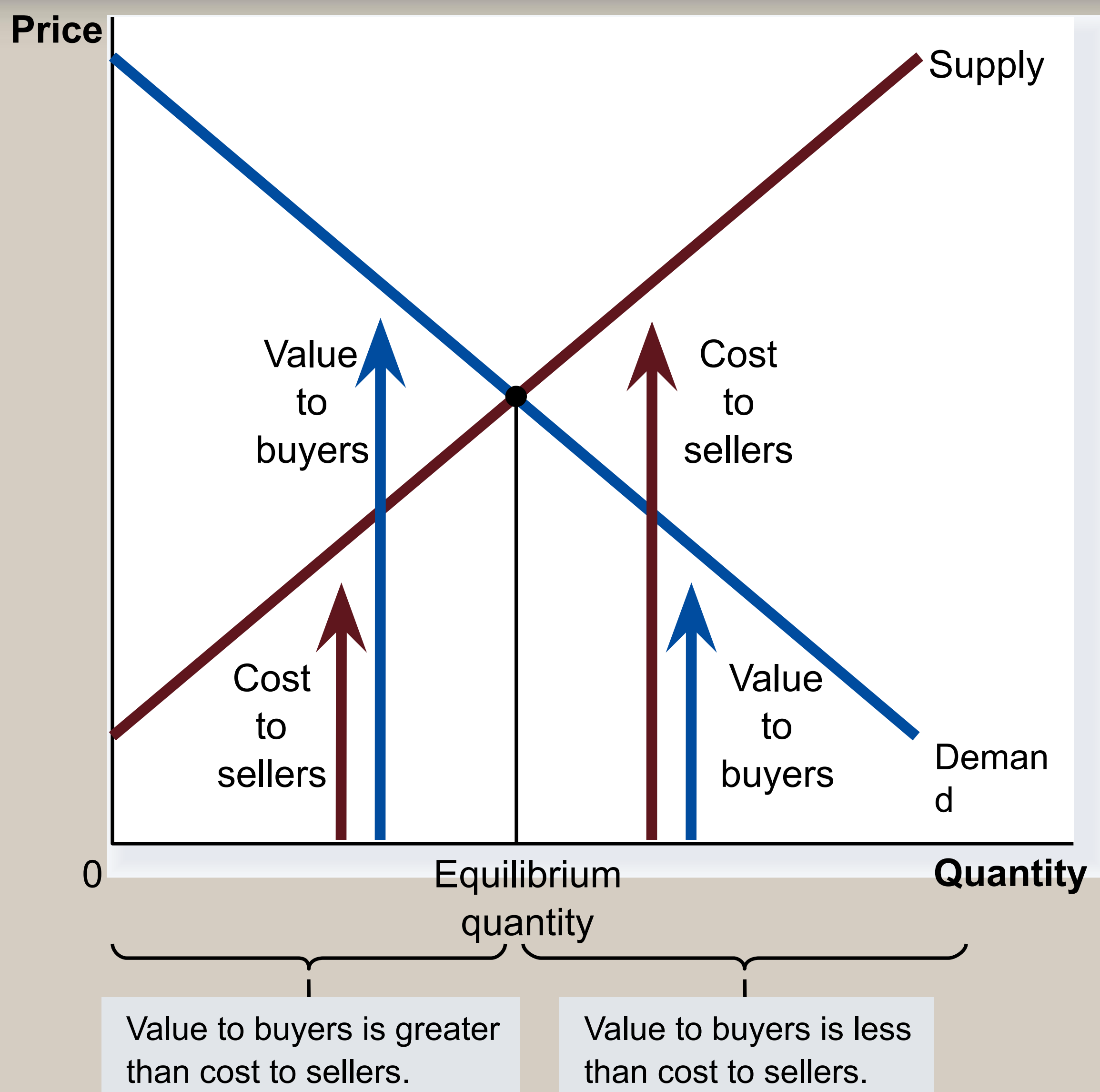
Consumer and Producer Surplus in the Market Equilibrium



MARKET EFFICIENCY

- Three Insights Concerning Market Outcomes
  - Free markets allocate the supply of goods to the buyers who value them most highly, as measured by their willingness to pay.
  - Free markets allocate the demand for goods to the sellers who can produce them at least cost.
  - Free markets produce the quantity of goods that maximizes the sum of consumer and producer surplus.

The Efficiency of the Equilibrium Quantity



- Because the equilibrium outcome is an efficient allocation of resources, the social planner can leave the market outcome as he/she finds it.
- This policy of leaving well enough alone goes by the French expression *laissez faire.*

- Market Power
  - If a market system is not perfectly competitive, *market power* may result.
    - Market power is the ability to influence prices.
    - Market power can cause markets to be inefficient because it keeps price and quantity from the equilibrium of supply and demand.

- Externalities
  - created when a market outcome affects individuals other than buyers and sellers in that market.
  - cause welfare in a market to depend on more than just the value to the buyers and cost to the sellers.
- When buyers and sellers do not take externalities into account when deciding how much to consume and produce, the equilibrium in the market can be inefficient.

Summary

- Consumer surplus equals buyers' willingness to pay for a good minus the amount they actually pay for it.
- Consumer surplus measures the benefit buyers get from participating in a market.
- Consumer surplus can be computed by finding the area below the demand curve and above the price.

Summary

- Producer surplus equals the amount sellers receive for their goods minus their costs of production.
- Producer surplus measures the benefit sellers get from participating in a market.
- Producer surplus can be computed by finding the area below the price and above the supply curve.

Summary

- An allocation of resources that maximizes the sum of consumer and producer surplus is said to be efficient.
- Policymakers are often concerned with the efficiency, as well as the equity, of economic outcomes.

Summary

- The equilibrium of demand and supply maximizes the sum of consumer and producer surplus.
- This is as if the invisible hand of the marketplace leads buyers and sellers to allocate resources efficiently.
- Markets do not allocate resources efficiently in the presence of market failures.