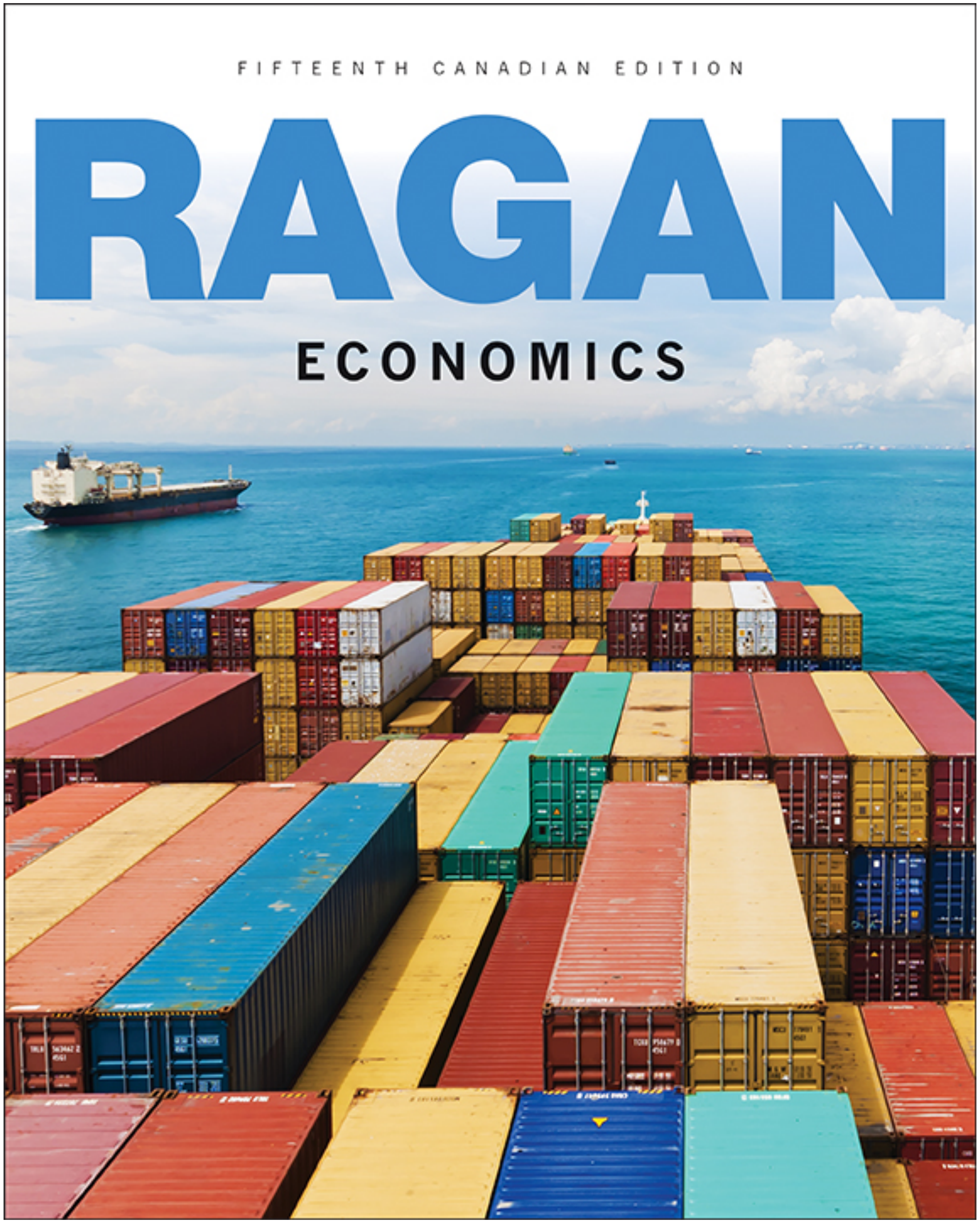


Chapter 5:
Price Controls and Market Efficiency

Chapter Outline/Learning Objectives

Section	Learning Objectives After studying this chapter, you will be able to
5.1 Government-Controlled Prices	1. describe how the presence of legislated price ceilings and price floors affect equilibrium price and quantity.
5.2 Rent Controls: A Case Study of Price Ceilings	2. compare the short-run and long-run effects of legislated rent controls.
5.3 An Introduction to Market Efficiency	3. describe the relationship between economic surplus and the efficiency of a market. 4. explain why government interventions that cause prices to deviate from their market-clearing levels tend to be inefficient for society as a whole.

5.1 Government-Controlled Prices

Situations in which the governments may think about changing equilibrium prices

- When during the Icelandic volcano cloud there was an increase in the prices of hotel rooms
- Minimum wages
- Water shortage in Boston (May 2010)
- Housing in Manhattan

Massachusetts water crisis

A catastrophic water main leak in Weston on May 1 forced a boil-water order for about 2 million residents in 30 Eastern Massachusetts communities. The boil order was lifted early on May 4 after a fix to the leak was made and tests showed clean water flowing to the communities.

Icelandic volcano cloud

The ash from the erupting volcano near Eyjafjallajokull, Iceland, has caused flight chaos for travellers throughout the world

Many travellers may find themselves without a place to sleep as hotel demand has increased so sharply following the volcano eruption

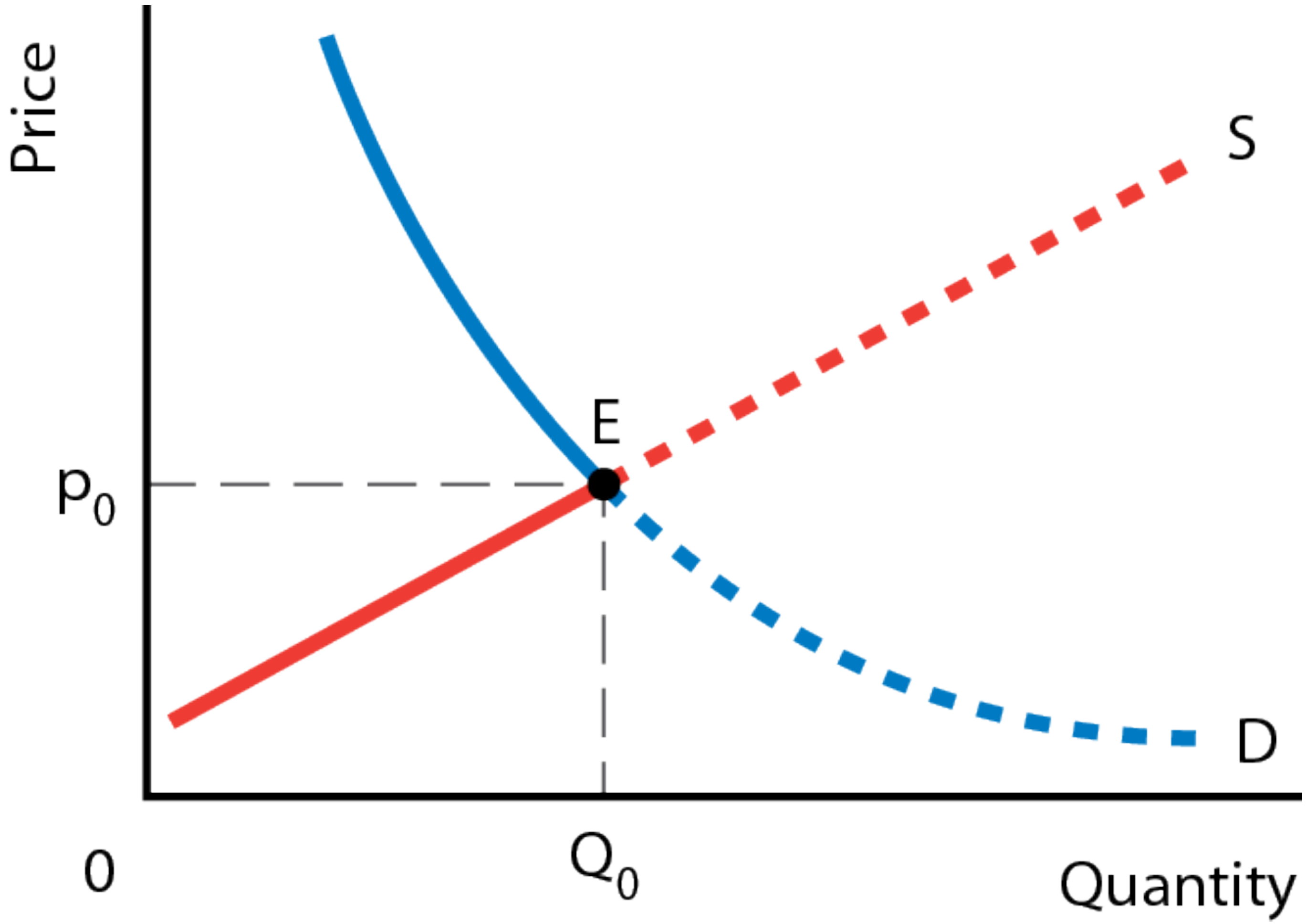
Disequilibrium Prices

If price is set above equilibrium, some sellers will be unable to find buyers.

Conversely, if price is set below equilibrium, some buyers will be unable to find sellers.

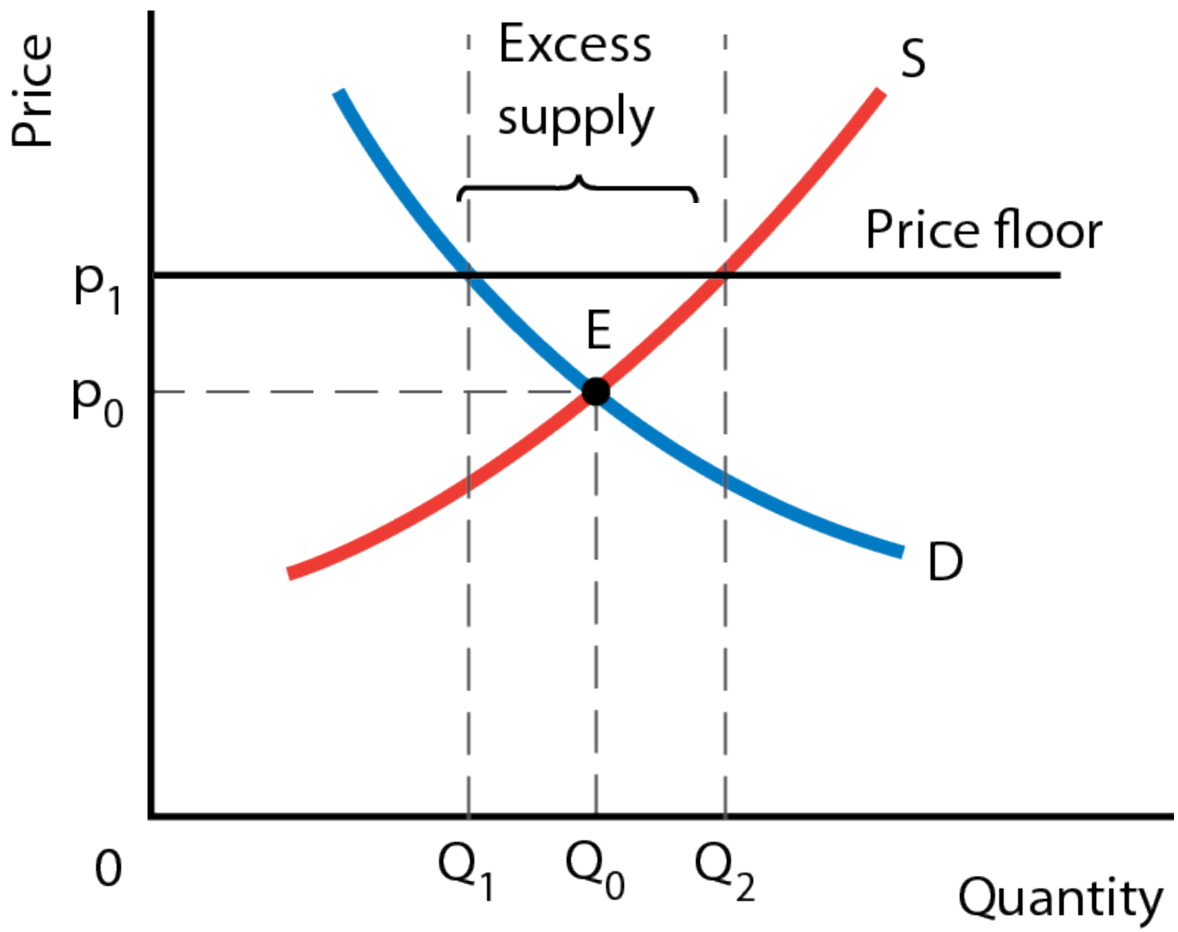
With administered prices, the quantity is determined by the **lesser** of quantity demanded and supplied.

Fig. 5-1 **The Determination of Quantity Exchanged in Disequilibrium**



Price Floors

Fig. 5-2 **A Binding Price Floor**



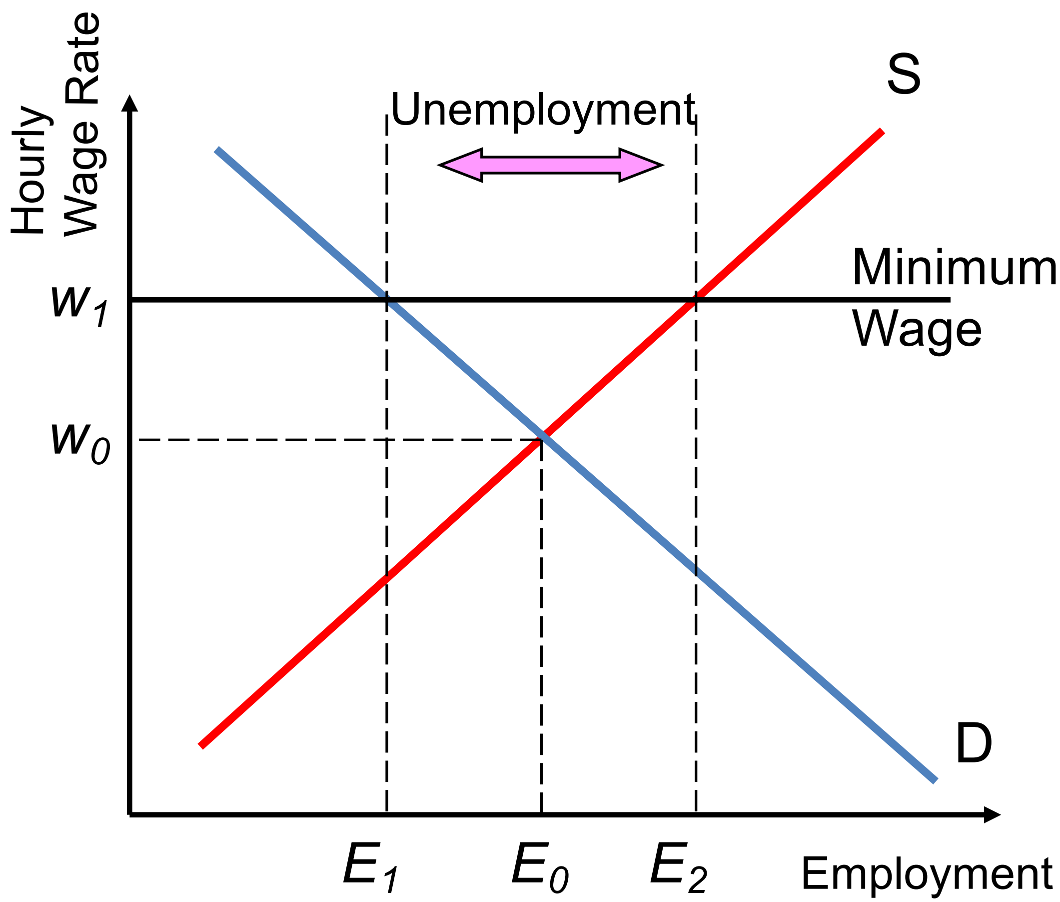
Price floors make it illegal to sell the product below the controlled price.

Price floors lead to excess supply.

APPLYING ECONOMIC CONCEPTS 5-1

Minimum Wages and Unemployment

Price floors lead to excess supply



FIRMS: are worse off. They have to pay a higher wage than before.

WORKERS:

- The ones that keep the job are better off.
- The ones that are unemployed are worse off.

Examples of price floors:

Legislated minimum wages

Agricultural products

Why?

“Against dignity” to work for lower wages

Stabilize and increase incomes of farmers; farmers are an organized group and losses are spread across a large and diverse group of purchasers.

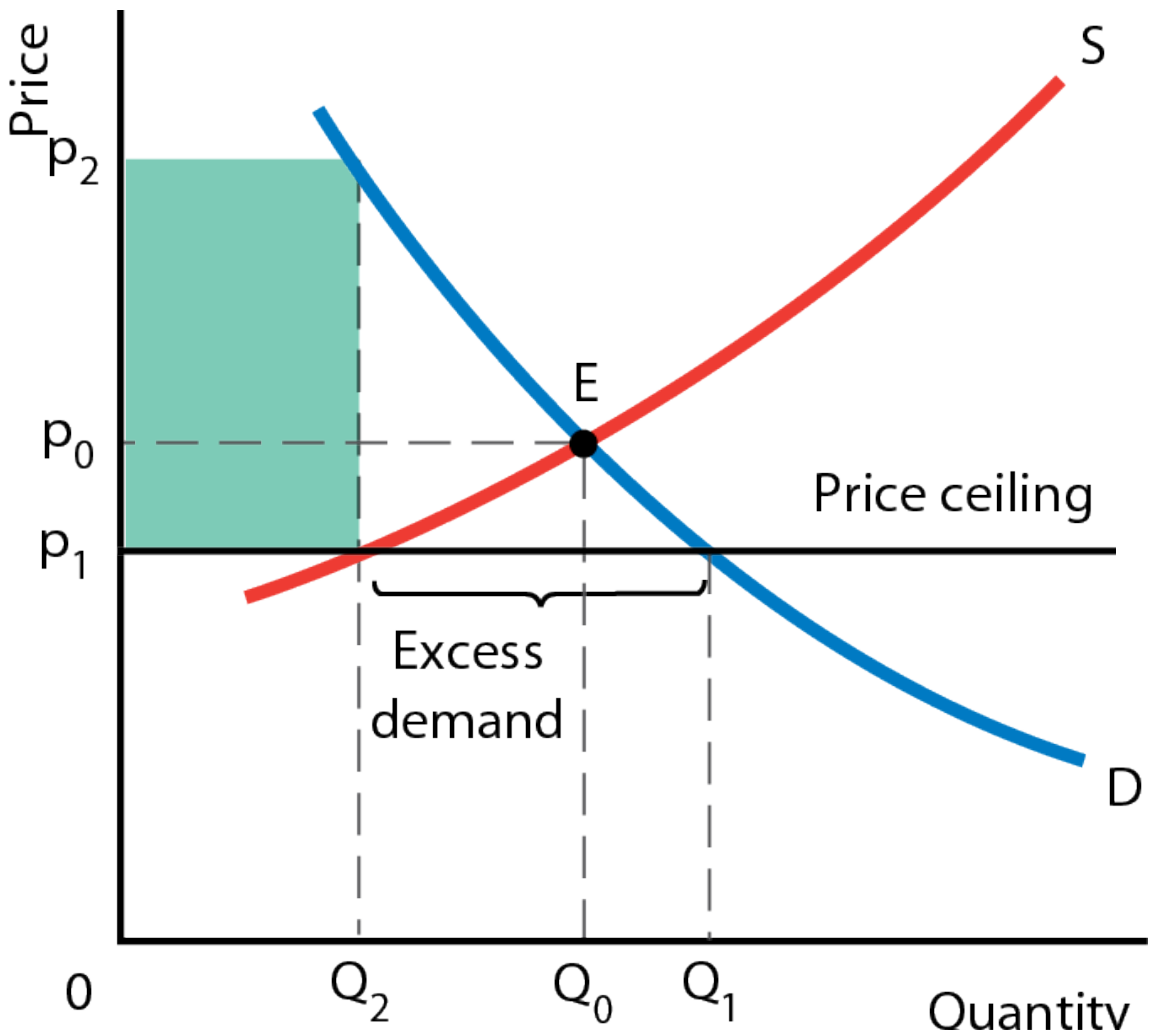
Consequences: excess supply

Unemployment

Accumulation of grain in elevators or government warehouses

Price Ceilings

Fig. 5-3 **A Price Ceiling and Black-Market Pricing**



A price ceiling is the maximum price at which a product may be exchanged.

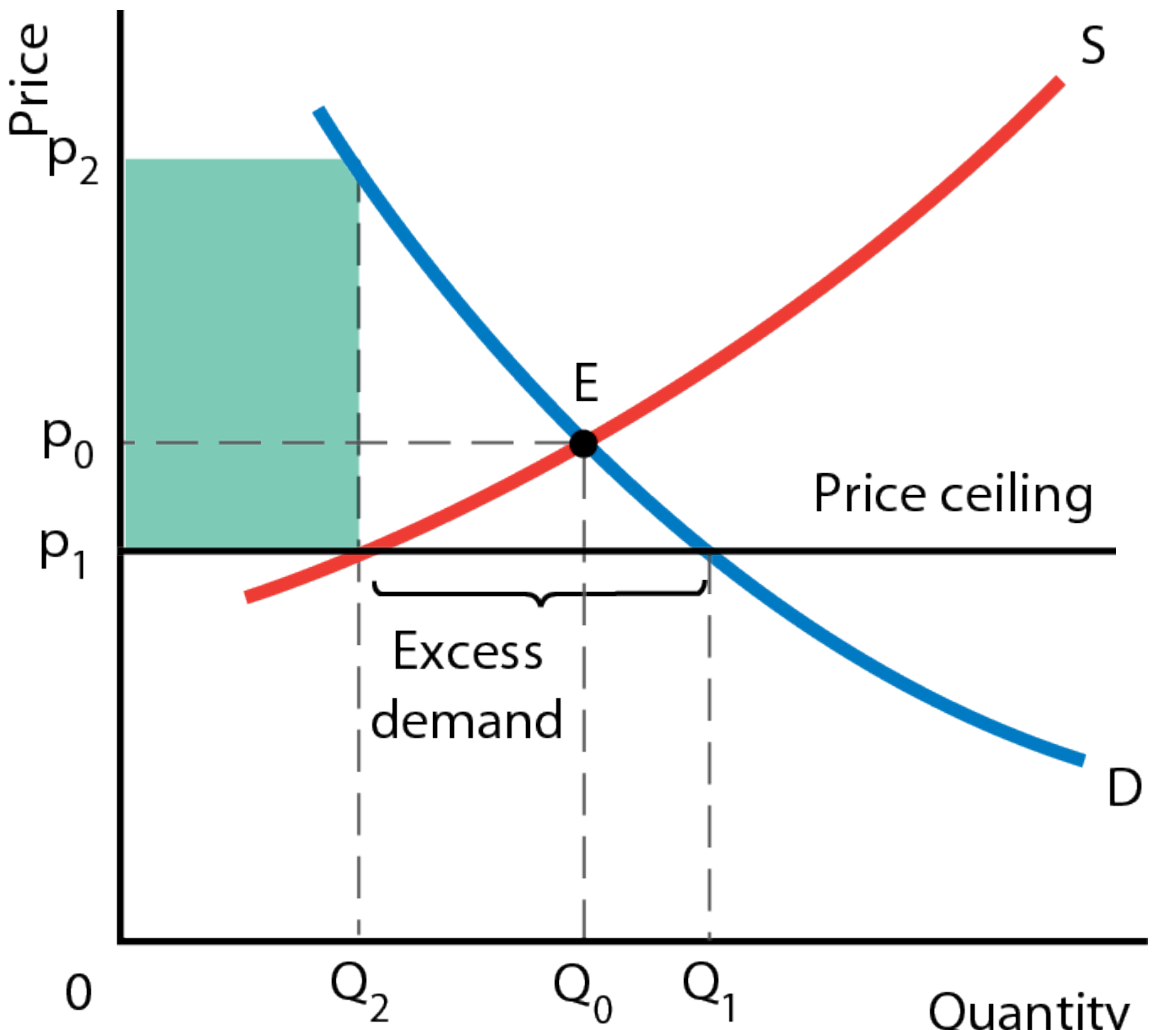
Price ceilings lead to excess demand.

Typically, a government has one (or more) of three main objectives in imposing a price ceiling:

- restrict production
- keep specific prices down
- satisfy (normative) notions of equity

Black Markets

Fig. 5-3 **A Price Ceiling and Black-Market Pricing**



Black market is a situation in which goods are sold at prices that violate a legal price control.

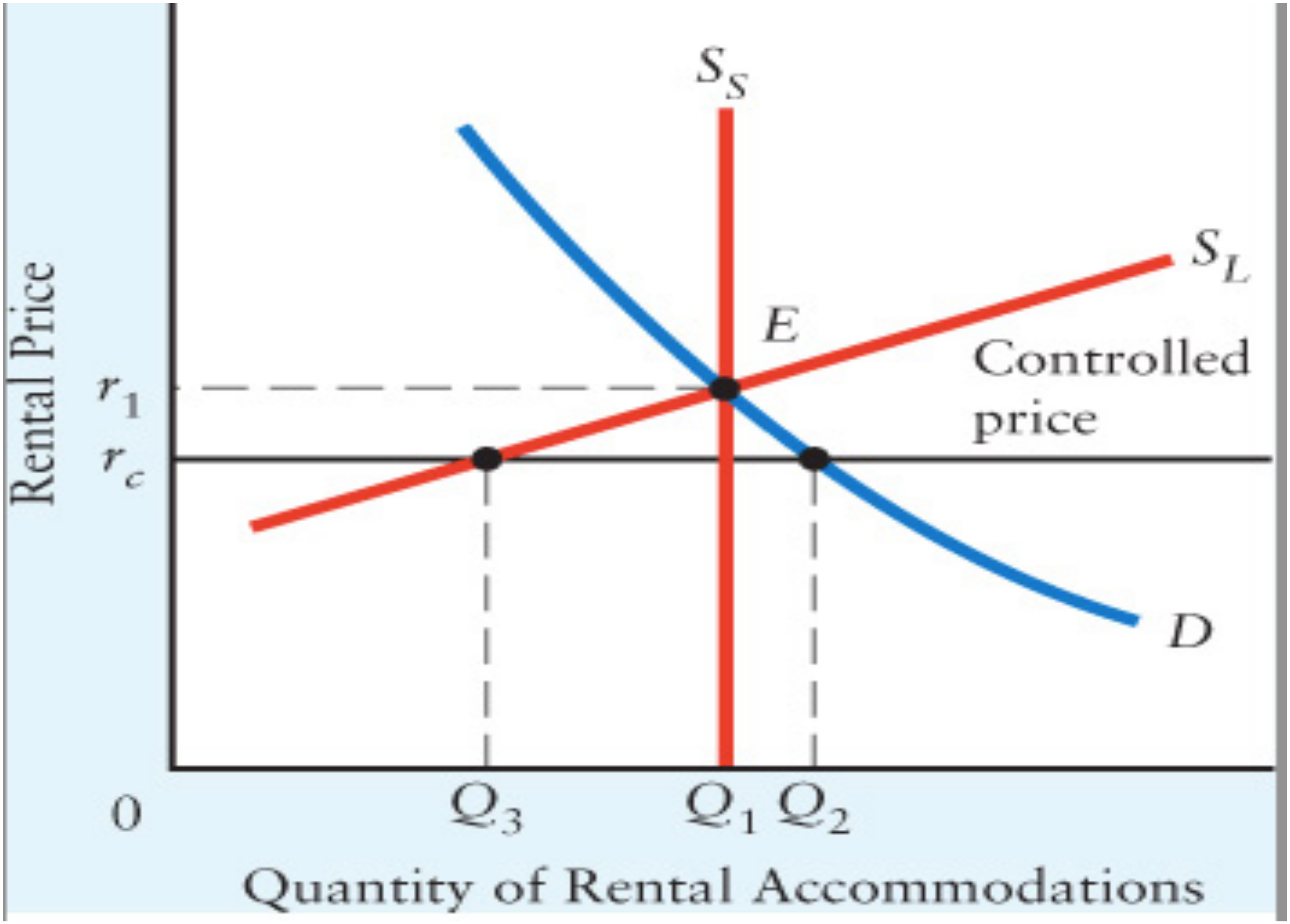
The existence of a black market may thwart the objectives of the government.

The Predicted Effects of Rent Controls

Binding rent controls are a specific form of price ceiling. We can use the previous diagram to predict the effects:

- a housing shortage
- alternative allocation schemes in black markets
- illegal schemes like "key money" (or others!)

The short-run and long-run effects of rent controls



Who Gains and Who Loses?

Existing tenants in rent-controlled apartments win.

Landlords lose.

Potential future tenants also suffer.

Policy Alternatives

Housing shortages can be reduced if the government (at taxpayers' expense) either subsidizes housing production or produces public housing directly.

The government may also provide lower-income households with income assistance.

But no policy is "free"—every policy involves a resource cost.

MyEconLab
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In some situations, legislated rent controls may impose relatively small costs. For a fuller explanation, look for **When Rent Controls Work and When They Don't** in the *Additional Topics* section of this book's MyEconLab.

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Do rent controls work?

Aug 30th 2015, 23:50 by E.H.

AT THE end of July about 1,000 people packed into an auditorium in Seattle for a two-hour long debate on rent controls. The idea of controlling rent—currently illegal in Washington state—has found fans among several council members there, who argue that it would help fix a housing market which they argue is broken. These Seattleites are not alone in their thinking: in New York, Bill de Blasio, the mayor, has campaigned vigorously for rent freezes on rent-stabilised apartments. In London, several mayoral hopefuls have mooted the idea of introducing some form of rental control to the city. Why are rent controls popular, and would they work?

5.3 An Introduction to Market Efficiency

Legislated minimum wages make firms and some workers worse off, but benefit those workers who retain their jobs.

Rent controls make some tenants better off at the expense of landlords (and harm other tenants).

But how about the overall effect on society? Economists use the concept of **market efficiency**.

Demand as "Value" and Supply as "Cost"

Price corresponding to a specific quantity demanded is the highest price consumers are **willing to pay**

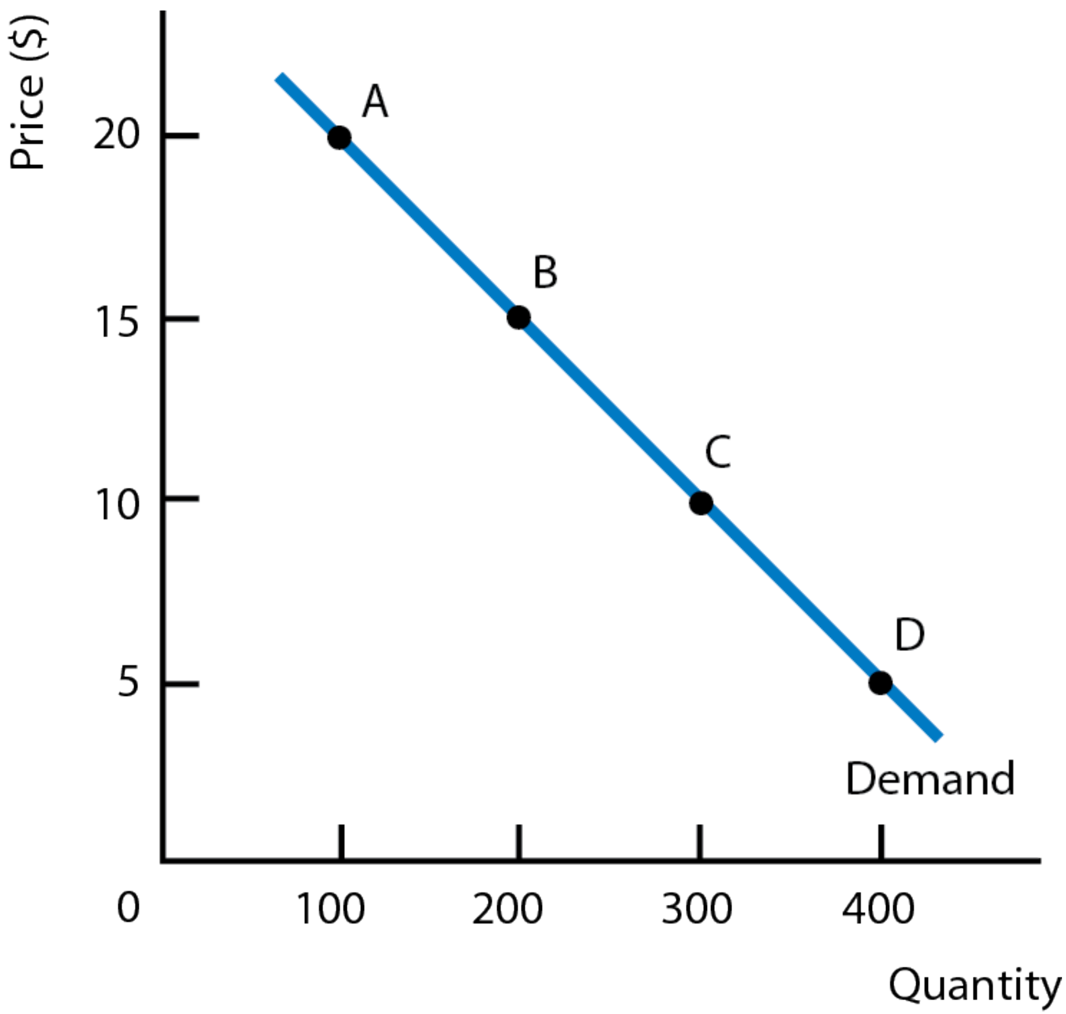
- as shown by the height of the demand curve.

Price corresponding to a specific quantity supplied is the lowest price producers are **willing to accept**

- as shown by the height of the supply curve.

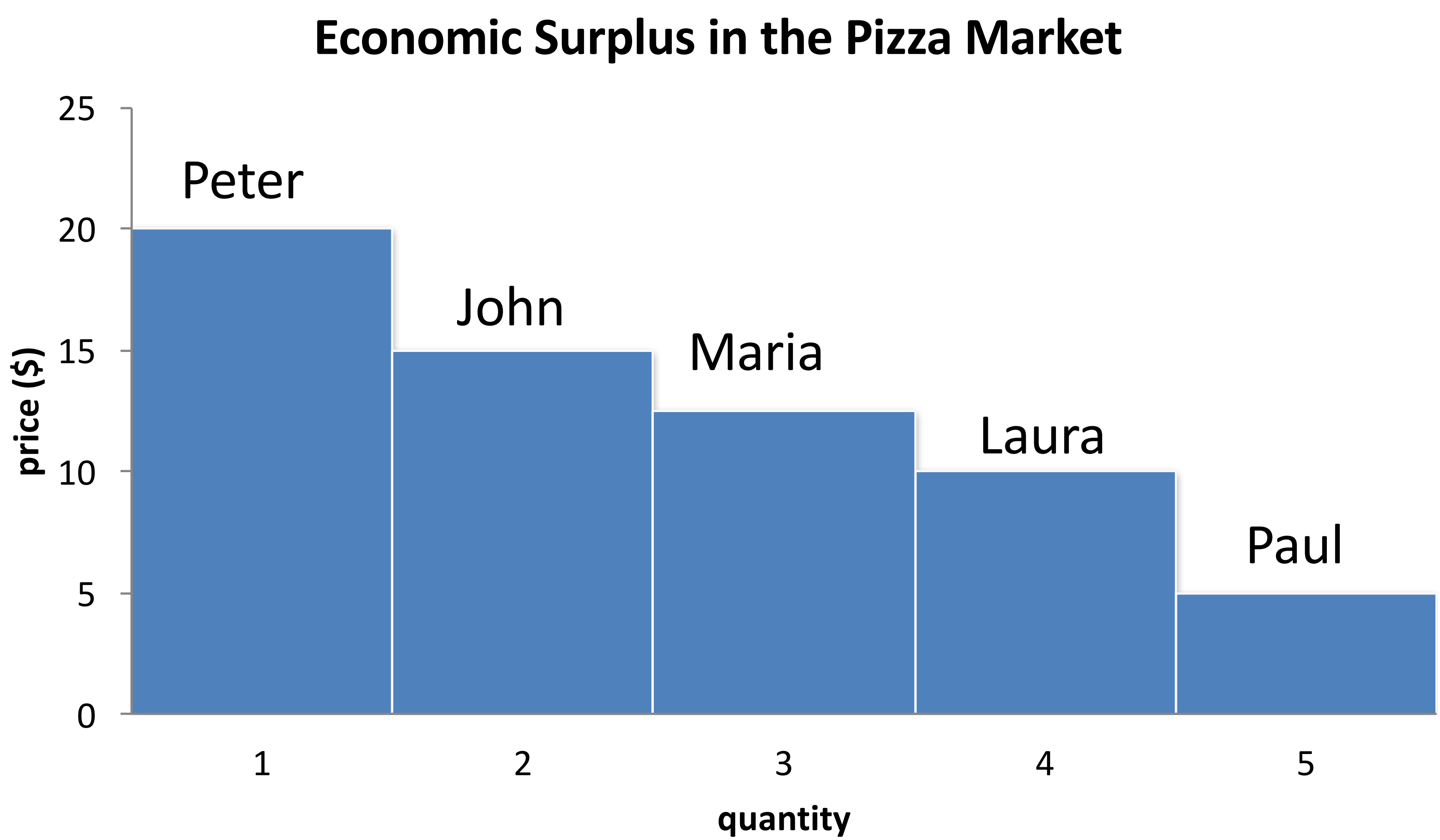
Reinterpreting the Demand Curve

Fig. 5-5(i) **Reinterpreting the Demand Curve for Pizza**



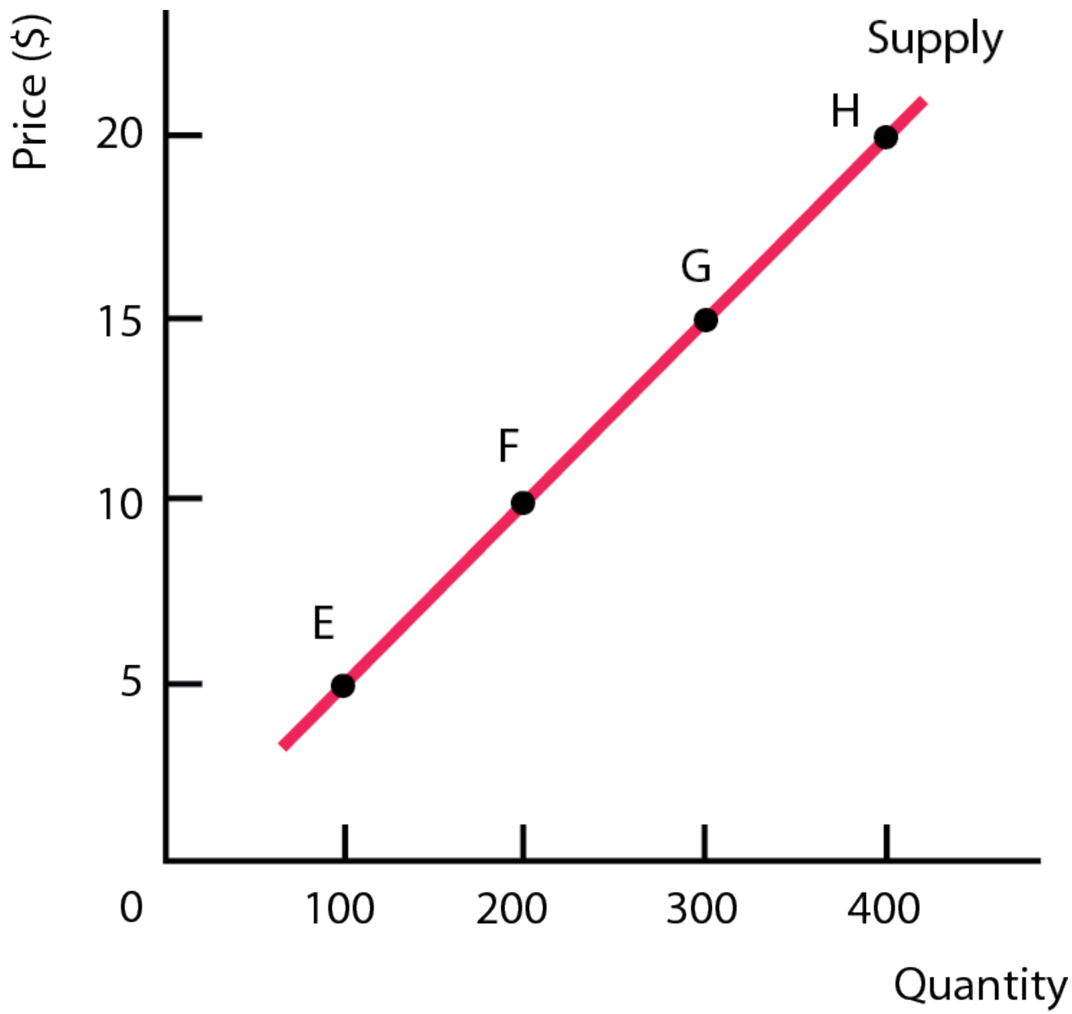
For each pizza, the price on the demand curve shows the value consumers receive from consuming that pizza.

Price as the value that consumers receive



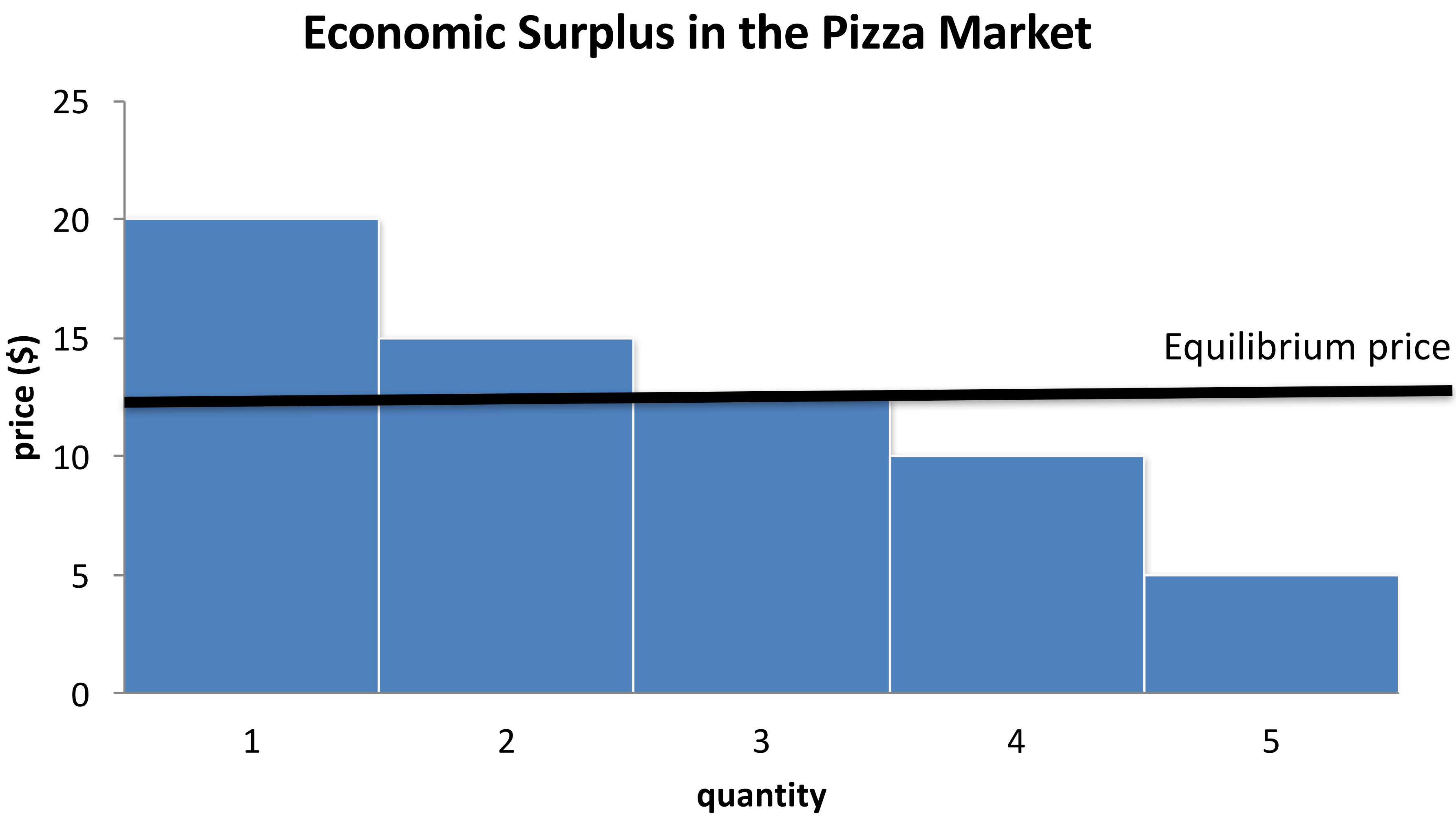
Reinterpreting the Supply Curve

Fig. 5-5(ii) **Reinterpreting the Supply Curve for Pizza**

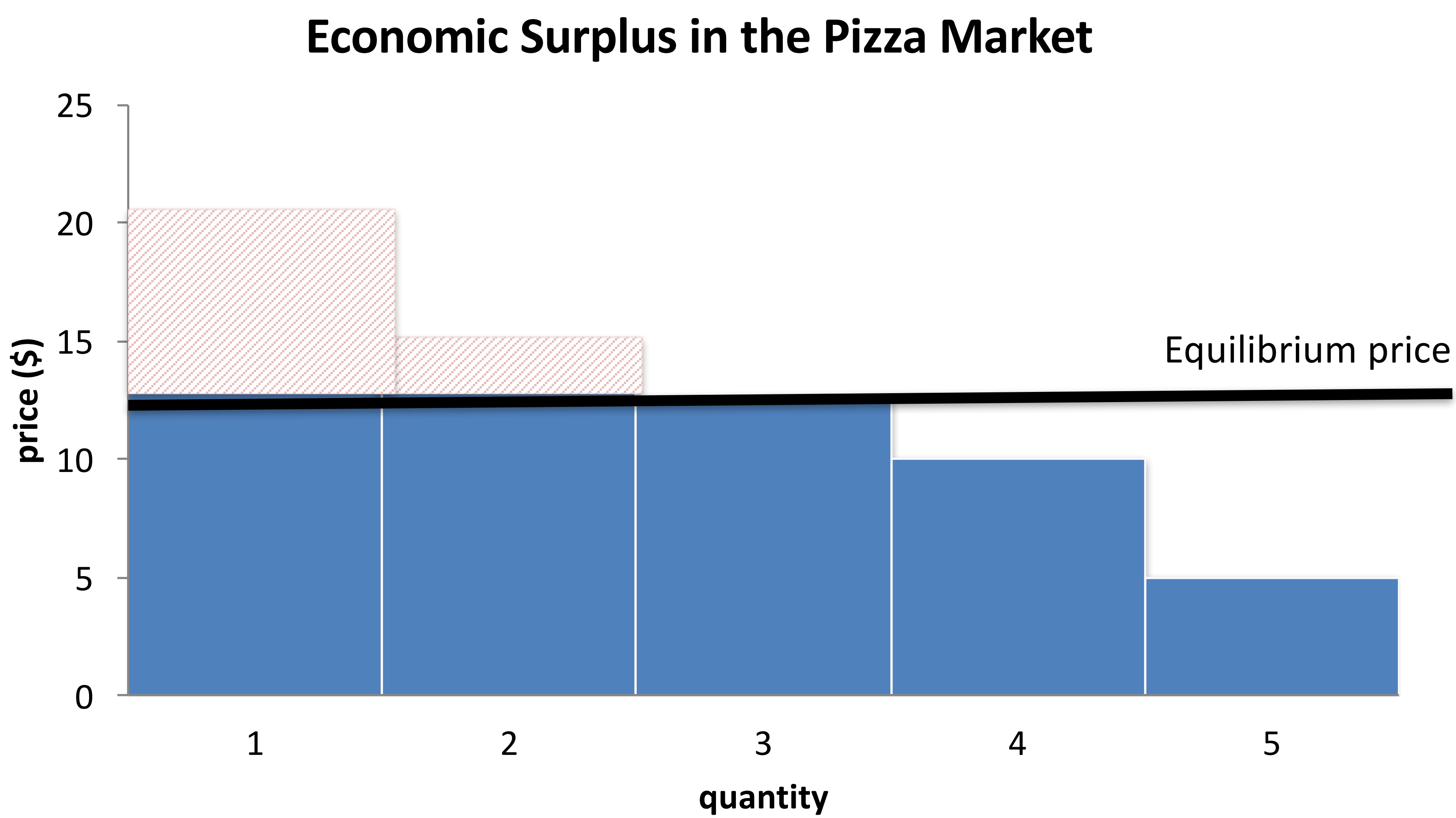


For each pizza, the price on the supply curve shows the additional cost to firms of producing that pizza.

What is Economic Surplus?

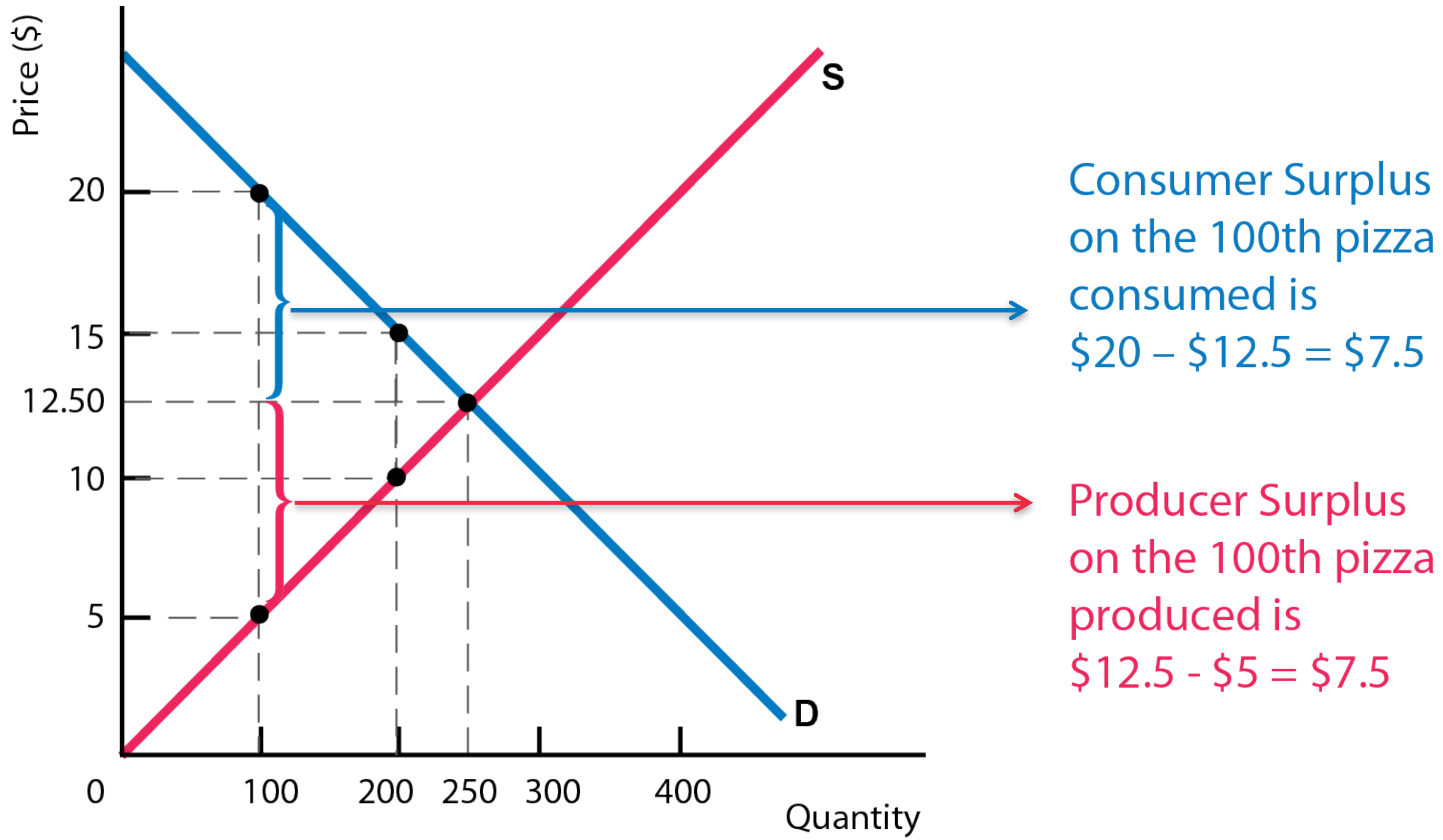


What is Economic Surplus?



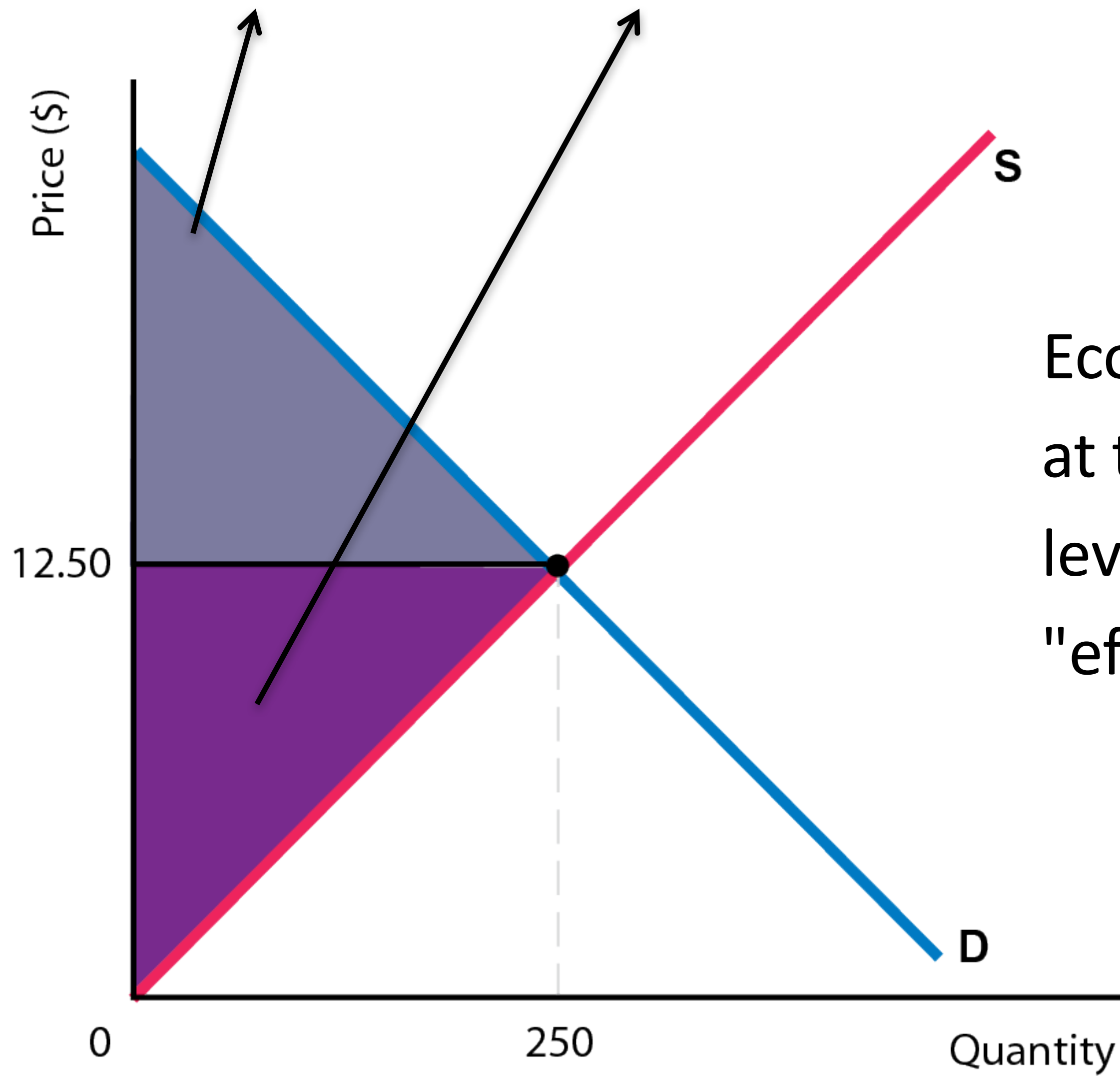
What is Economic Surplus?

Fig. 5-6 **Economic Surplus in the Pizza Market**



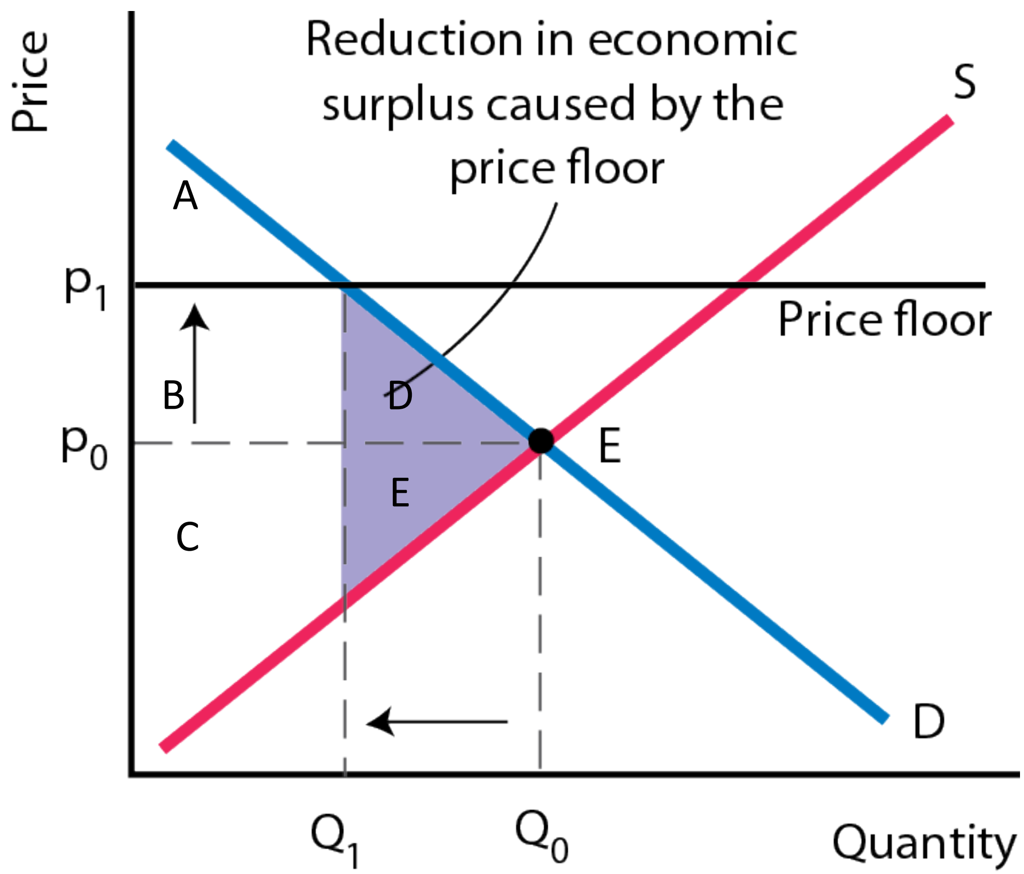
Economic Surplus and Market Efficiency

Consumer Surplus + **Producer Surplus** = **Total Economic Surplus**



Economic surplus is **maximized** at the competitive equilibrium level of output—the market is "efficient."

Fig. 5-7 **Market Inefficiency with Price Controls**



(i) Binding price floor

Change in CS = – (B + D)

Change in PS = B – E

Change in Total Surplus = – (D + E)

This is the "deadweight loss" of the price floor.

...and for a Price Ceiling?

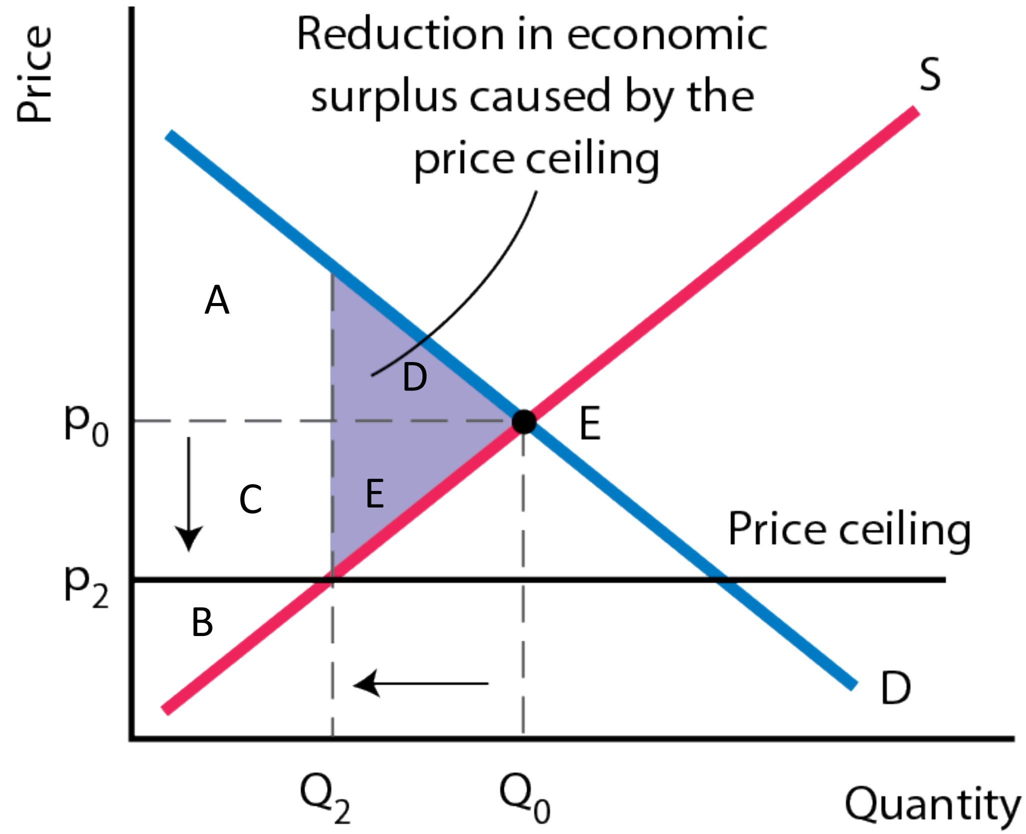
Fig. 5-7 **Market Inefficiency with Price Controls**

Change in CS = C – D

Change in PS = – (C + E)

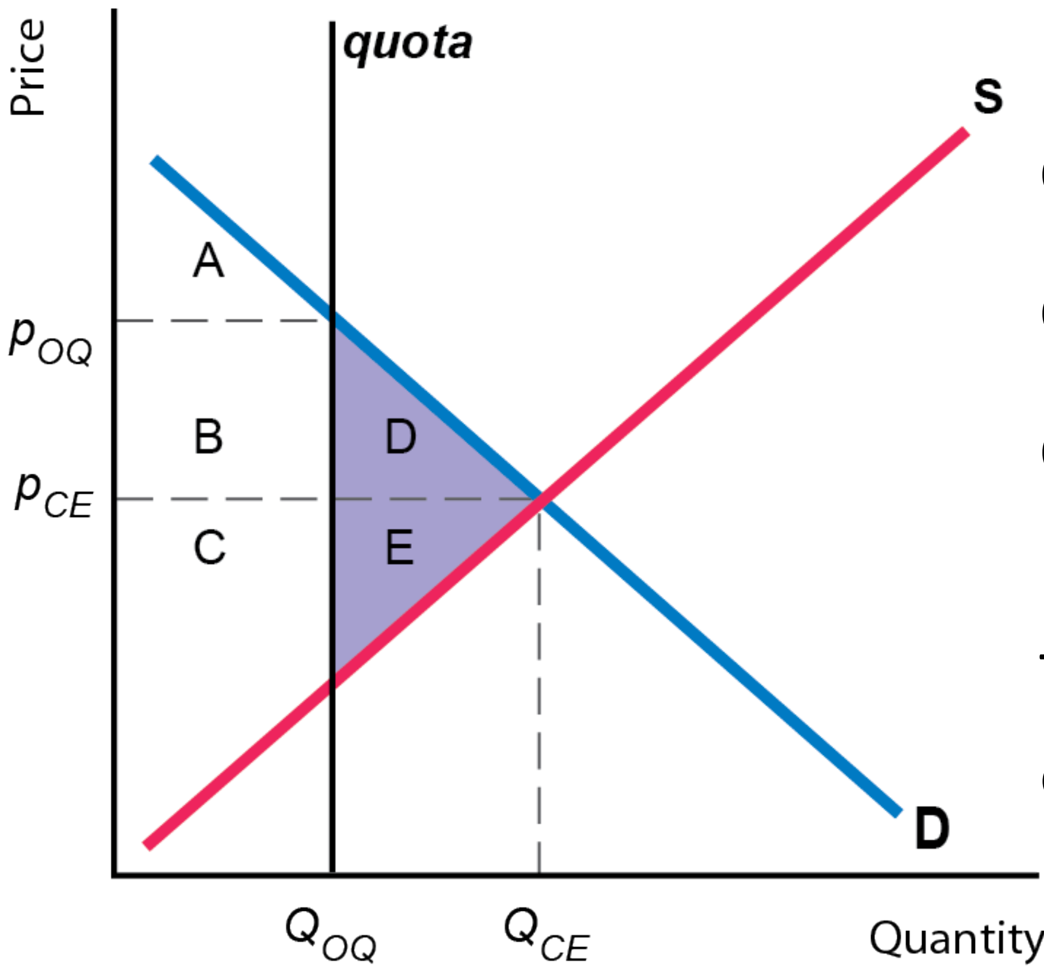
Change in Total Surplus = – (D + E)

This is the "deadweight loss" of the price ceiling.



(ii) Binding price ceiling

One Final Application: Output Quotas



Change in CS = – (B + D)

Change in PS = B – E

Change in Total Surplus = – (D + E)

This is the "deadweight loss" of the output quota.

A Cautionary Word

Government intervention in competitive markets redistributes surplus between buyers and sellers, but often creates **overall losses**. So why do it?

Government policy is often motivated by a desire to help a specific group (e.g., increase incomes of farmers).

Economists must carefully analyze the effects of such policies to determine the **actual** effects rather than what is desirable for political reasons.