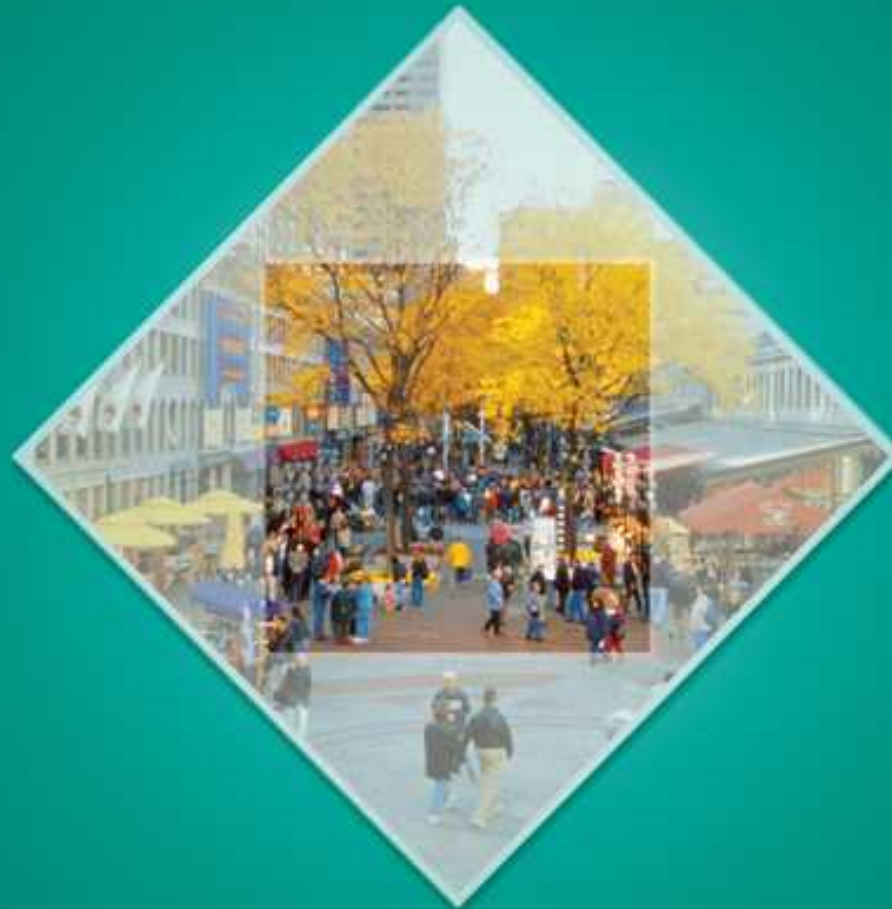


PARKIN  
MICROECONOMICS  
TENTH EDITION



7

GLOBAL MARKETS  
IN ACTION



After studying this chapter,  
you will be able to:

- ◆ Explain how markets work with international trade
- ◆ Identify the gains from international trade and its winners and losers
- ◆ Explain the effects of international trade barriers
- ◆ Explain and evaluate arguments used to justify restricting international trade

iPods, Wii games, and Roots sweaters are just three of the items you might buy that are not produced in the United States.

In fact, most of the goods that you buy are produced abroad and transported here in container ships or cargo jets.

And it's not only goods produced abroad that you buy—it is services too.

All these activities are part of the globalization process that is having a profound effect on our lives.

Why do we go to such lengths to trade and communicate with others in faraway places?

## How Global Markets Work

Because we trade with people in other countries, the goods and services that we can buy and consume are not limited by what we can produce.

**Imports** are the good and services that we buy from people in other countries.

**Exports** are the goods and services we sell to people in other countries.

# How Global Markets Work

## International Trade Today

Global trade today is enormous.

In 2009, global exports and imports were \$31 trillion, which is more than half the value of global production.

In 2009, total U.S. exports were \$1.6 trillion, which is about 11 percent of the value of U.S. production.

In 2009, total U.S. imports were \$2 trillion, which is about 14 percent of the value of U.S. production.

Services were about 33 percent of total U.S. exports and 19 percent of total U.S. imports.

# How Global Markets Work

## What Drives International Trade?

The fundamental force that generates trade between nations is *comparative advantage*.

The basis for comparative trade is divergent opportunity costs between countries.

*National comparative advantage* as the ability of a *nation* to perform an activity or produce a good or service at a lower opportunity cost than *any other nation*.

## **How Global Markets Work**

The opportunity cost of producing a T-shirt is lower in China than in the United States, so China has a comparative advantage in producing T-shirts.

The opportunity cost of producing an airplane is lower in the United States than in China, so the United States has a comparative advantage in producing airplanes.

Both countries can reap gains from trade by specializing in the production of the good at which they have a comparative advantage and then trading.

Both countries are better off.



# How Global Markets Work

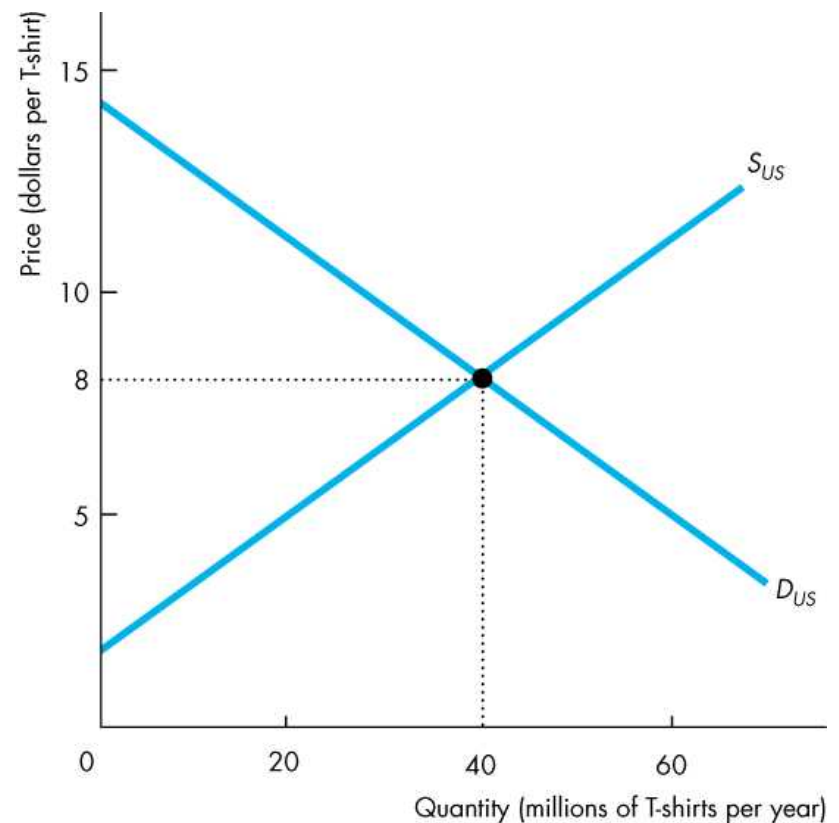


## Why the United States Imports T-Shirts

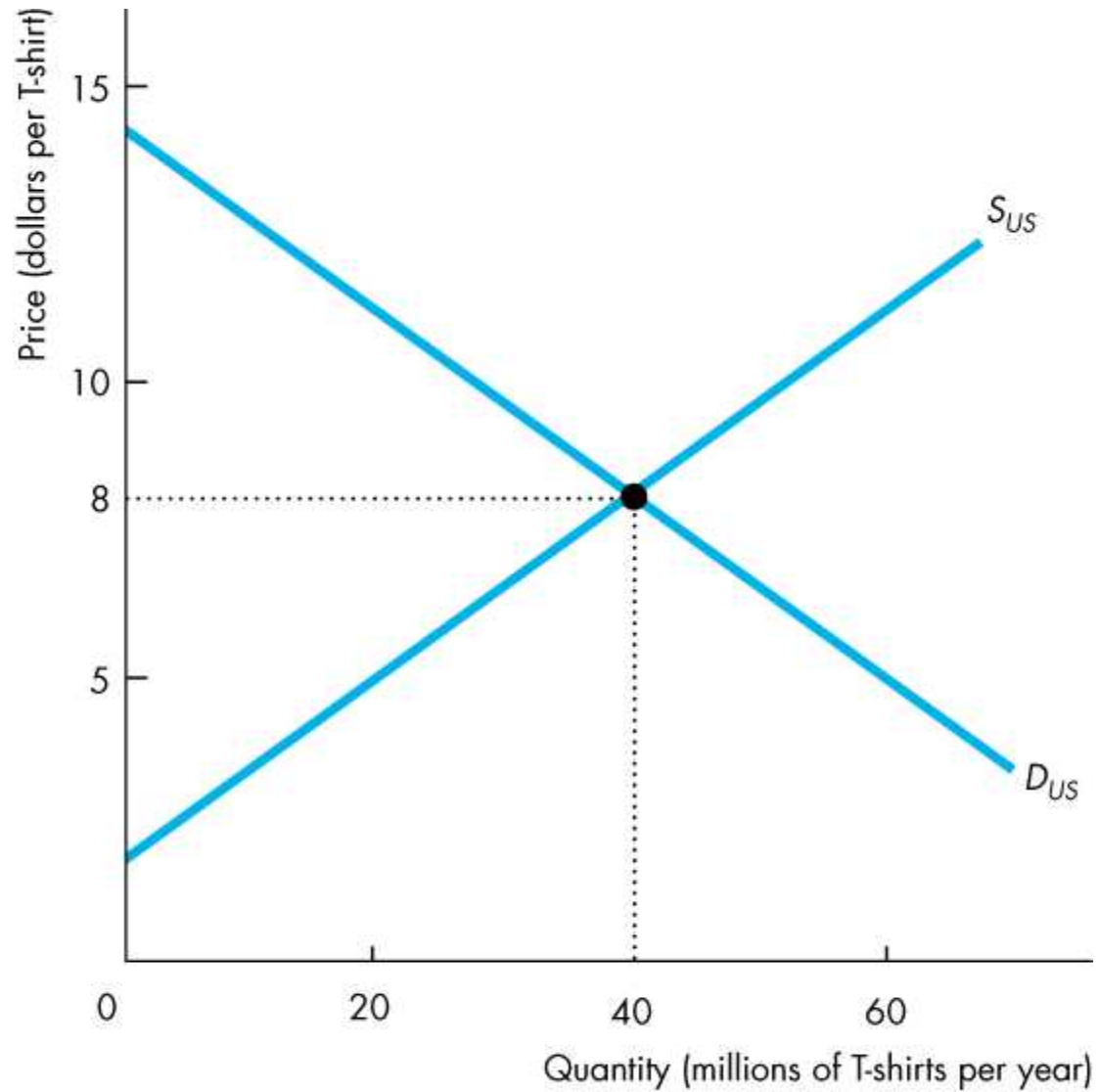
Figure 7.1(a) shows U.S. demand and U.S. supply with no international trade.

The price of a T-shirt is \$8.

U.S. firms produce 40 million T-shirts a year and U.S. consumers buy 40 million T-shirts a year.



(a) Equilibrium with no international trade



**(a) Equilibrium with no international trade**

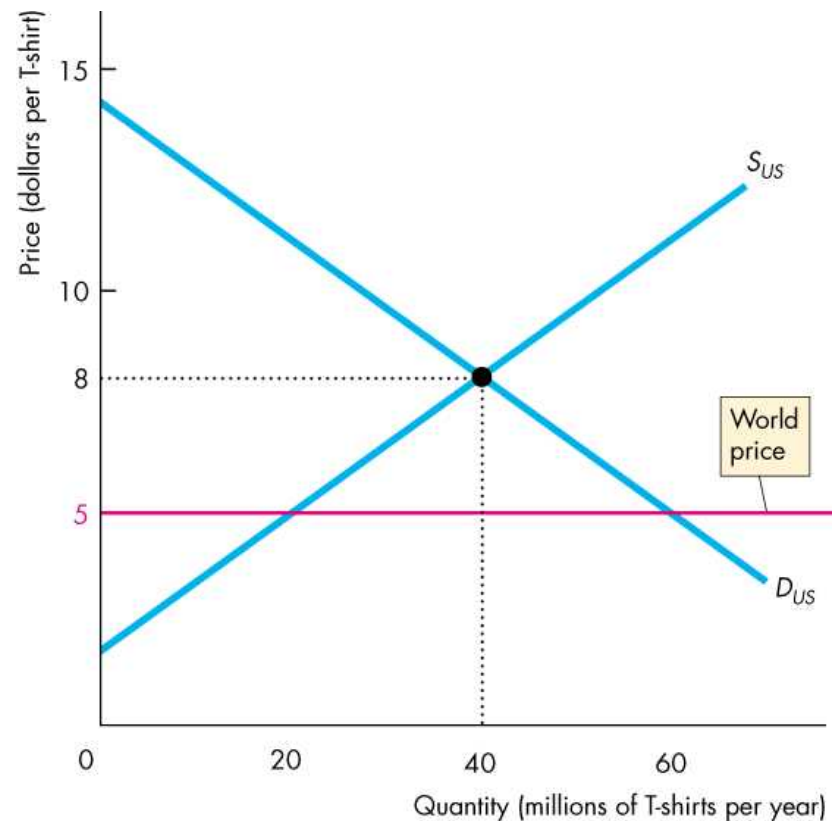
## How Global Markets Work



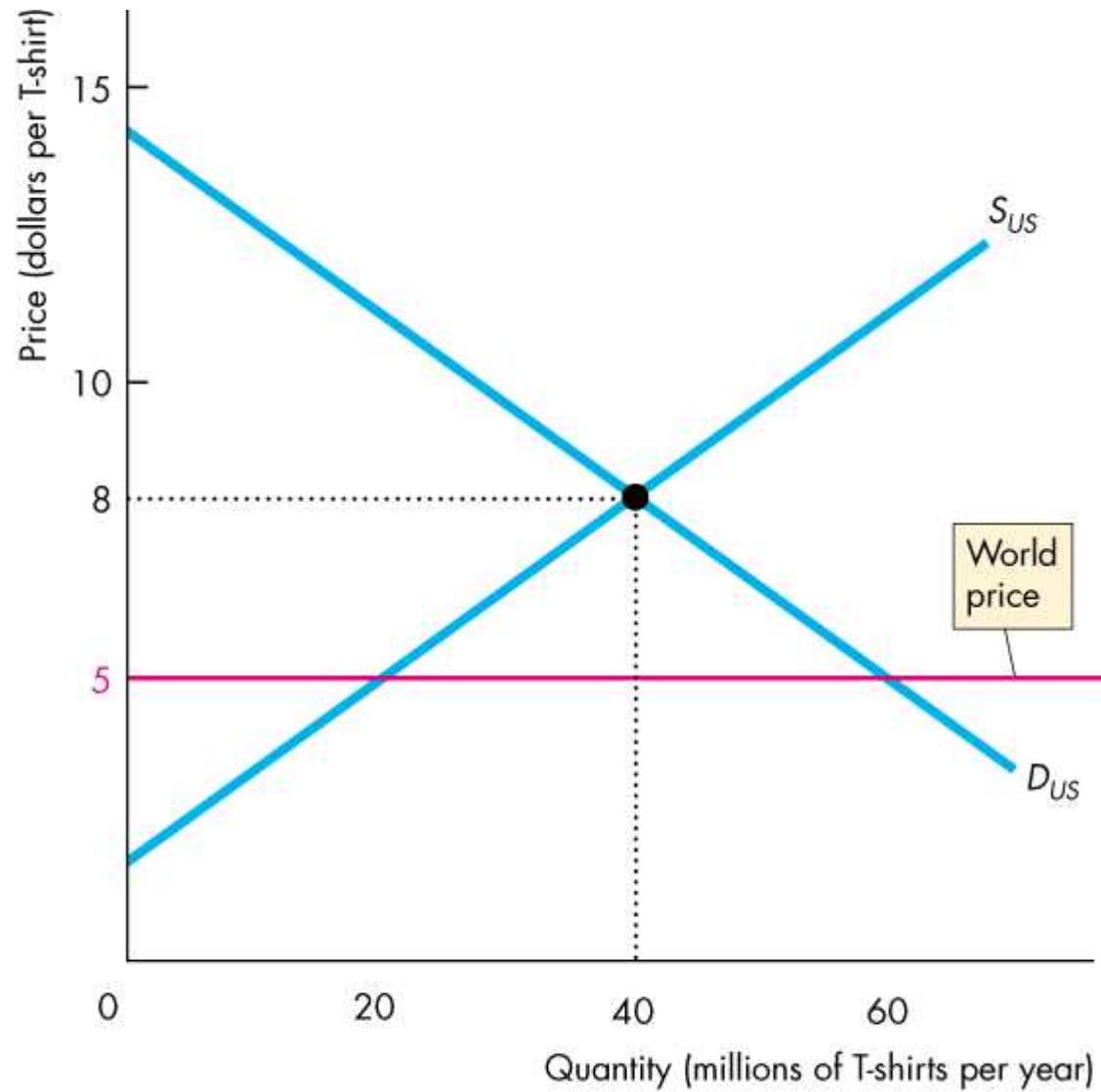
Figure 7.1(b) shows the market in the United States with international trade.

World demand and world supply of T-shirts determine the world price of a T-shirt at \$5.

The world price *is less* than \$8, so the rest of the world has a comparative advantage in producing T-shirts.



(b) Equilibrium in a market with imports



**(b) Equilibrium in a market with imports**

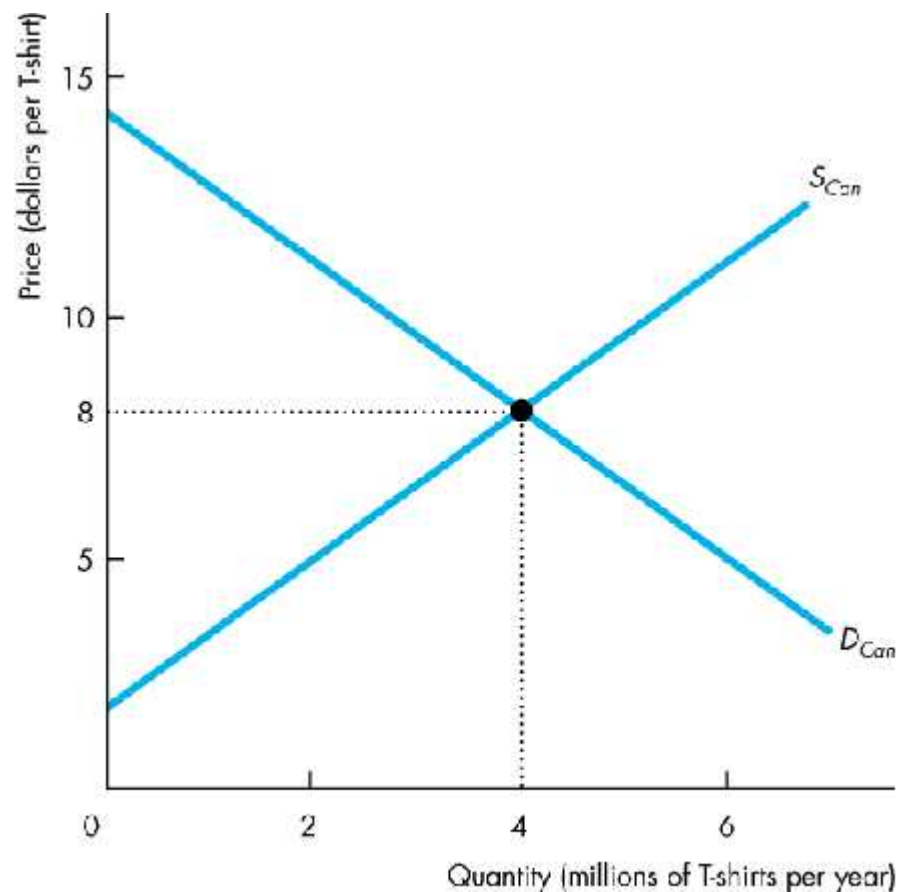
## How Global Markets Work

With international trade, the price of a T-shirt in the United States falls to \$5.

At \$5 a T-shirt, U.S. garment makers produce 2 million T-shirts a year.

At \$5 a T-shirt, U.S. consumers buy 60 million T-shirts a year.

The United States imports 40 million T-shirts a year.



(b) Equilibrium in a market with imports

# How Global Markets Work

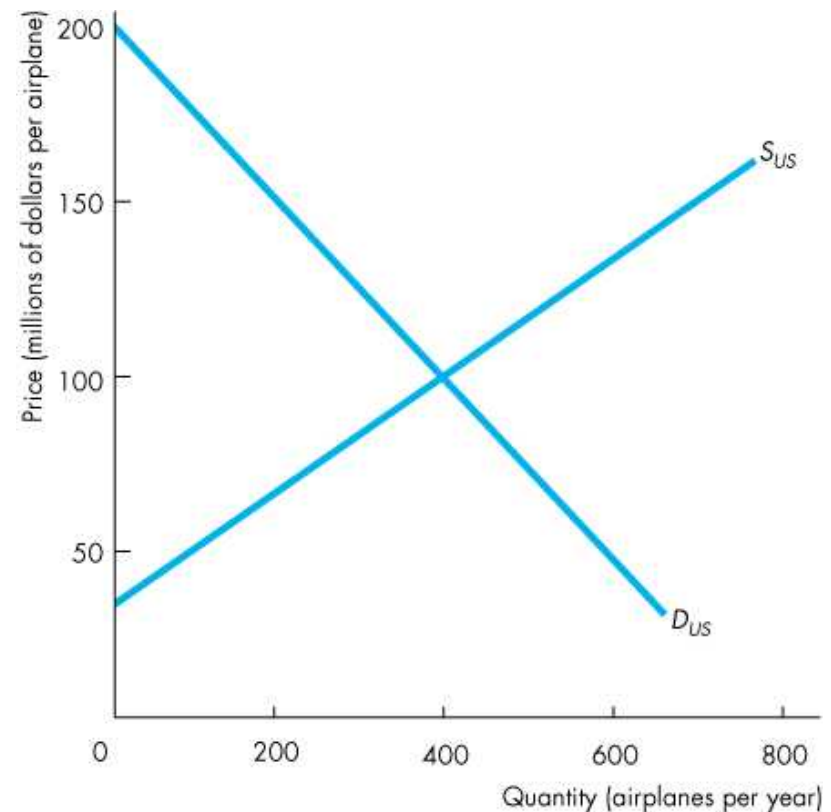


## Why the United States Exports Airplanes

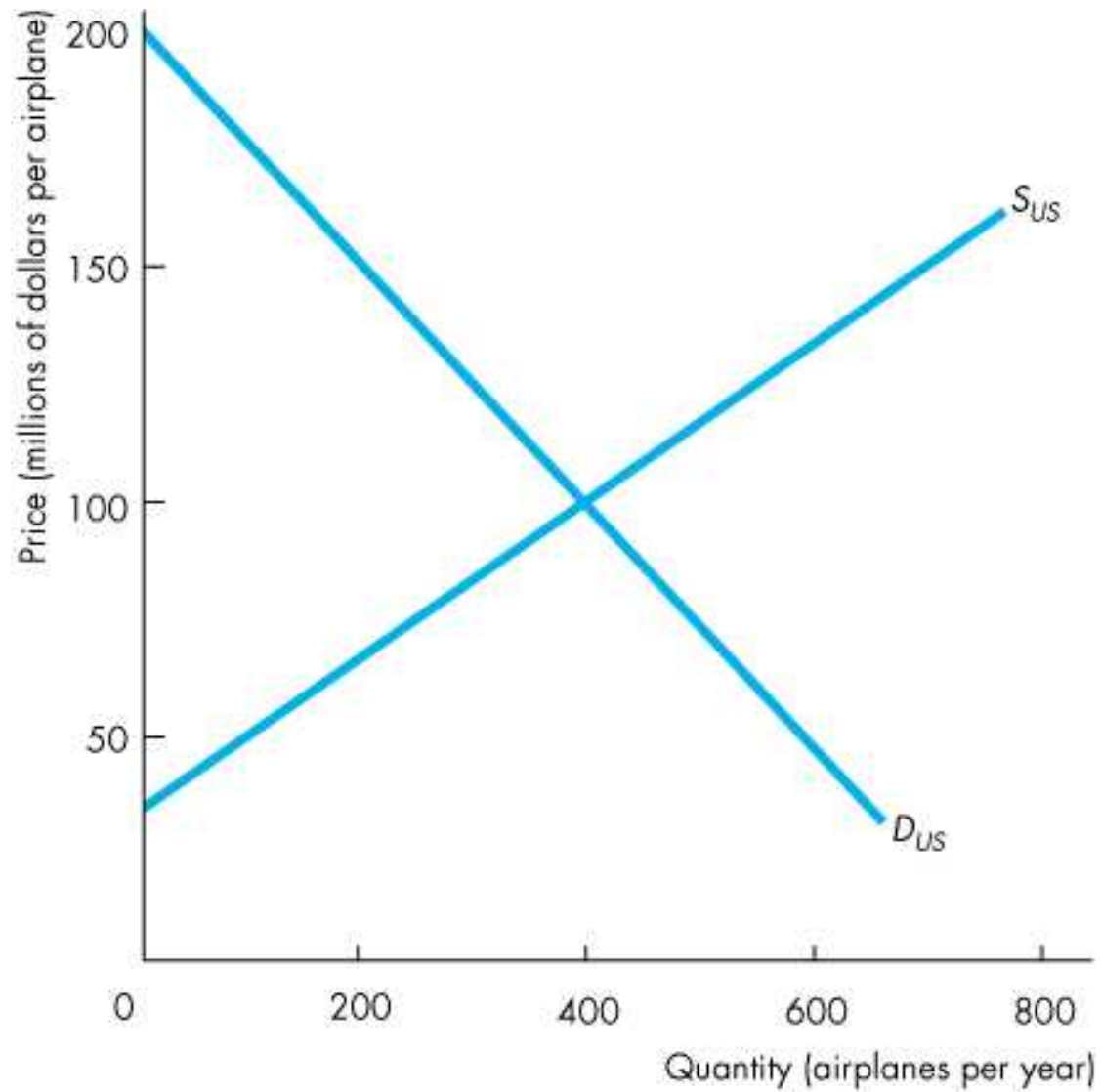
Figure 7.2(a) shows U.S. demand and U.S. supply with no international trade.

The price of an airplane is \$100 million.

Boeing produces 400 airplanes a year and U.S. airlines buy 400 a year.



(a) Equilibrium without international trade



**(a) Equilibrium without international trade**



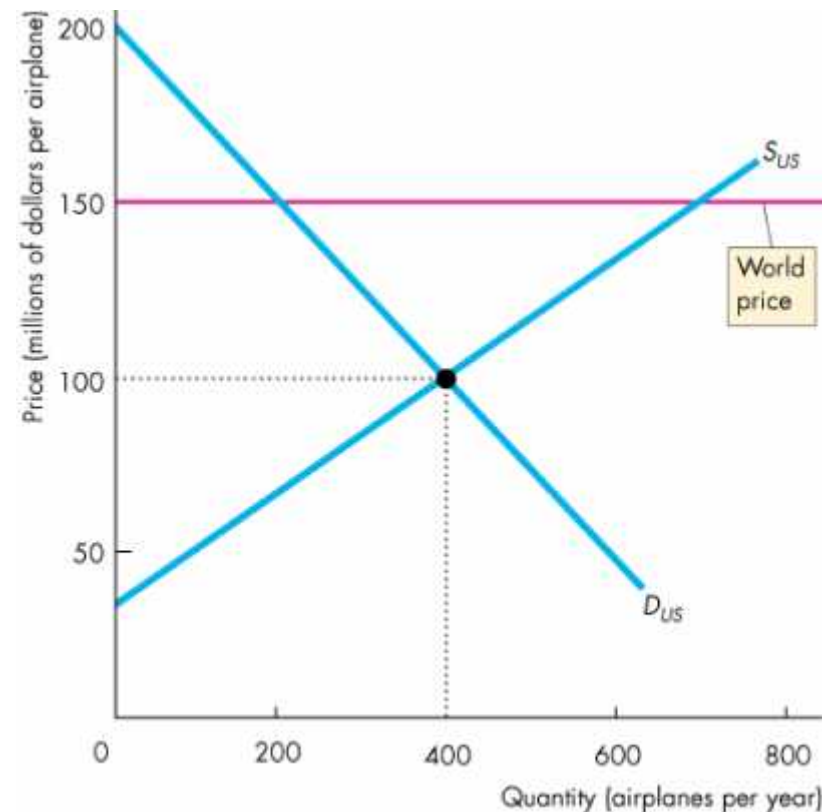
## How Global Markets Work



Figure 7.2(b) shows the market in the United States with international trade.

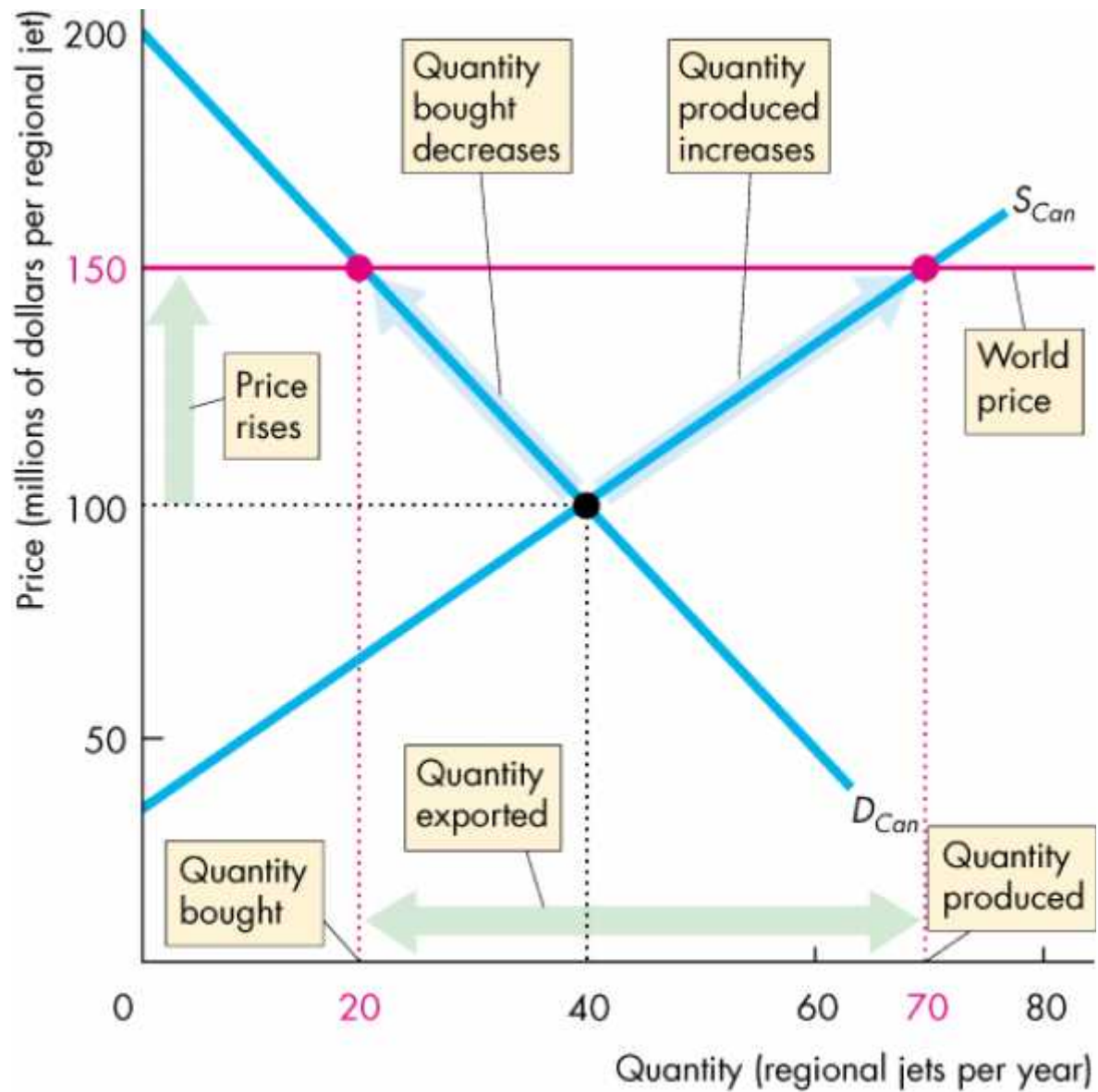
World demand and world supply of airplanes determine the world price of a airplane at \$150 million.

The world price *exceeds* \$100 million, so the United States has a comparative advantage in producing airplanes.



(b) Equilibrium in a market with exports





**(b) Equilibrium in a market with exports**

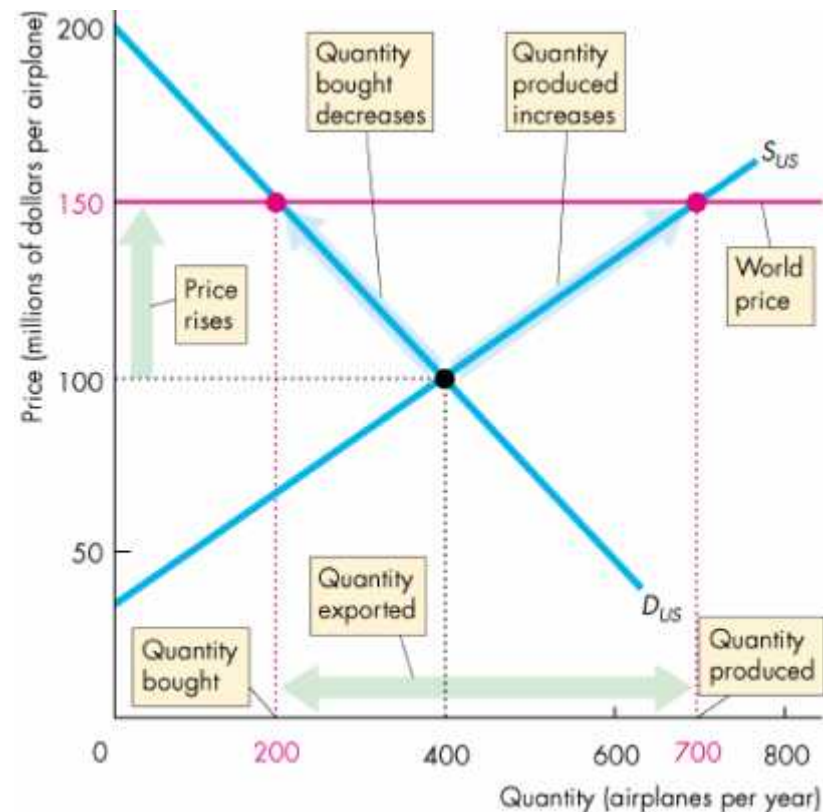
## How Global Markets Work

With international trade, the price of an airplane in the United States rises to \$150 million.

At \$150 million, U.S. airlines buy 200 jets a year.

At \$150 million, Boeing produces 700 airplanes a year.

The United States exports 500 airplanes a year.



(b) Equilibrium in a market with exports

## **Winners, Losers, and the Net Gain from Trade**

International trade lowers the price of an imported good and raises the price of an exported good.

Buyers of imported goods benefit from lower prices and sellers of exported goods benefit from higher prices.

But some people complain about international competition: not everyone gains.

Who wins and who loses from free international trade?

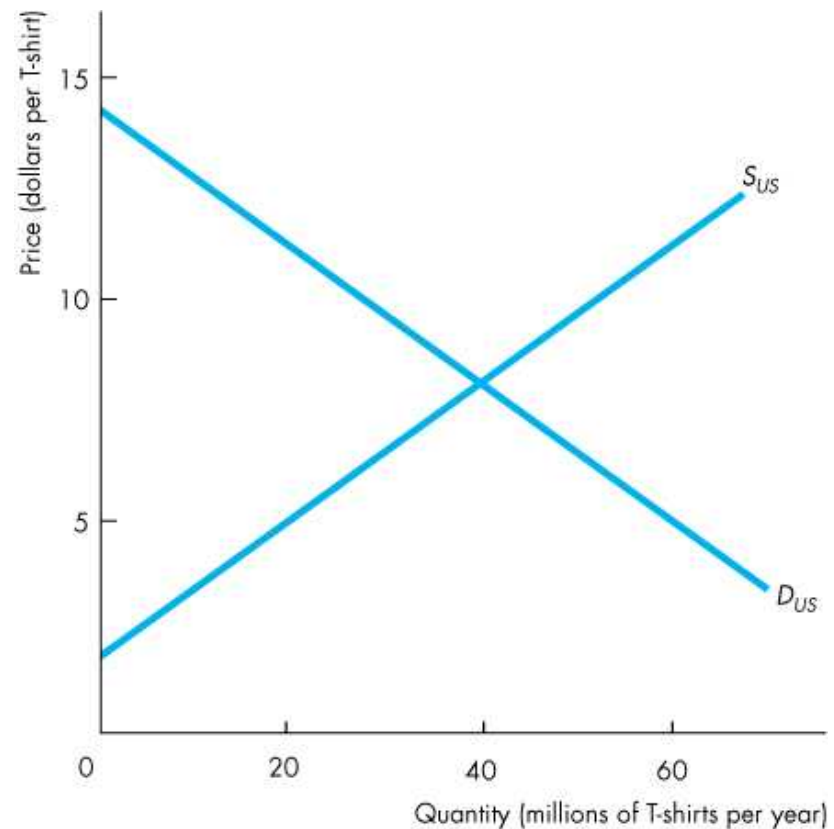
# Winners, Losers, and the Net Gain from Trade



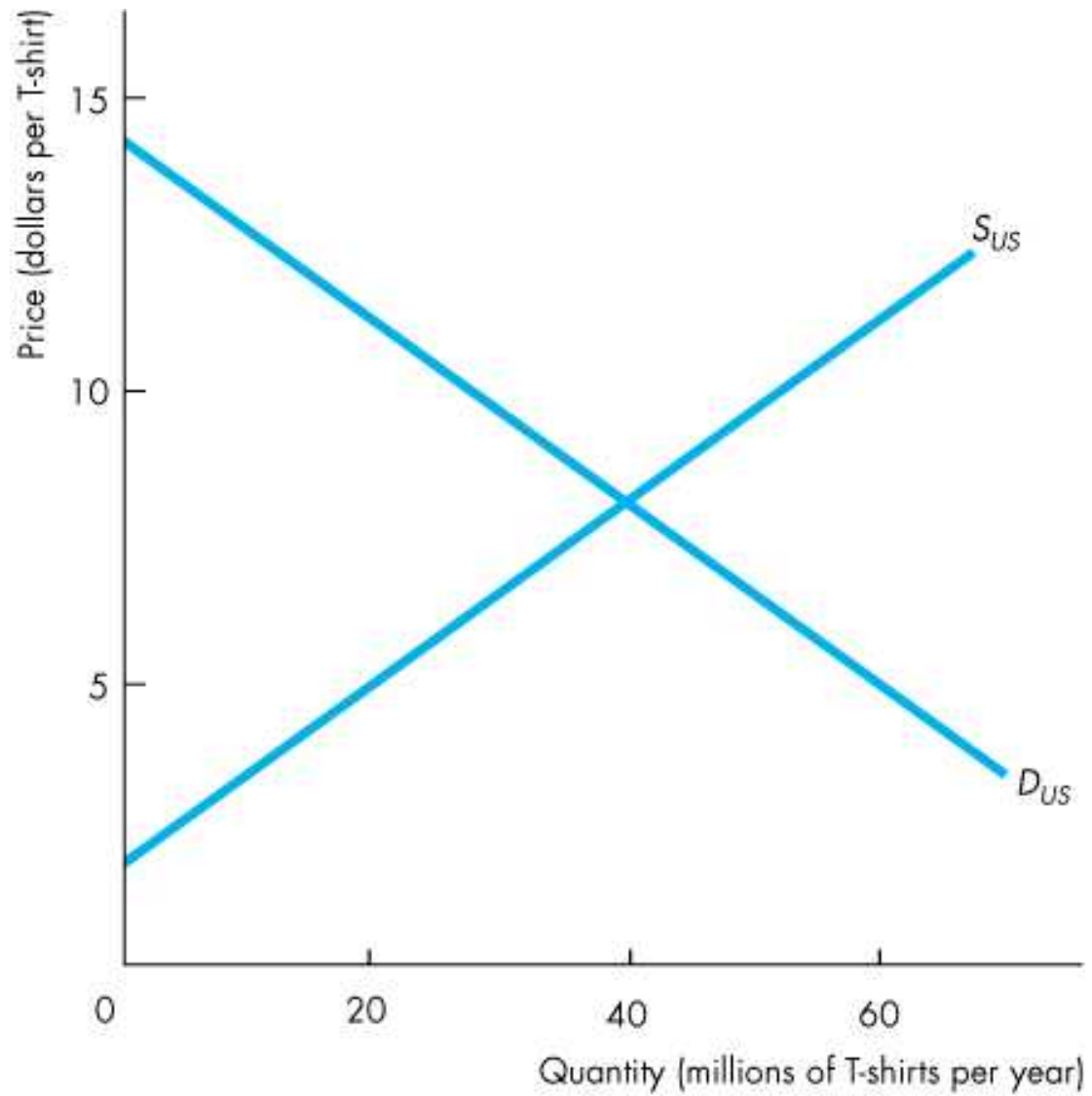
## Gains and Losses from Imports

Figure 7.3(a) shows the market in the United States with no international trade.

Total surplus from T-shirts is the sum of the consumer surplus and the producer surplus.



(a) Consumer surplus and producer surplus with no international trade



**(a) Consumer surplus and producer surplus with no international trade**

# Winners, Losers, and the Net Gain from Trade

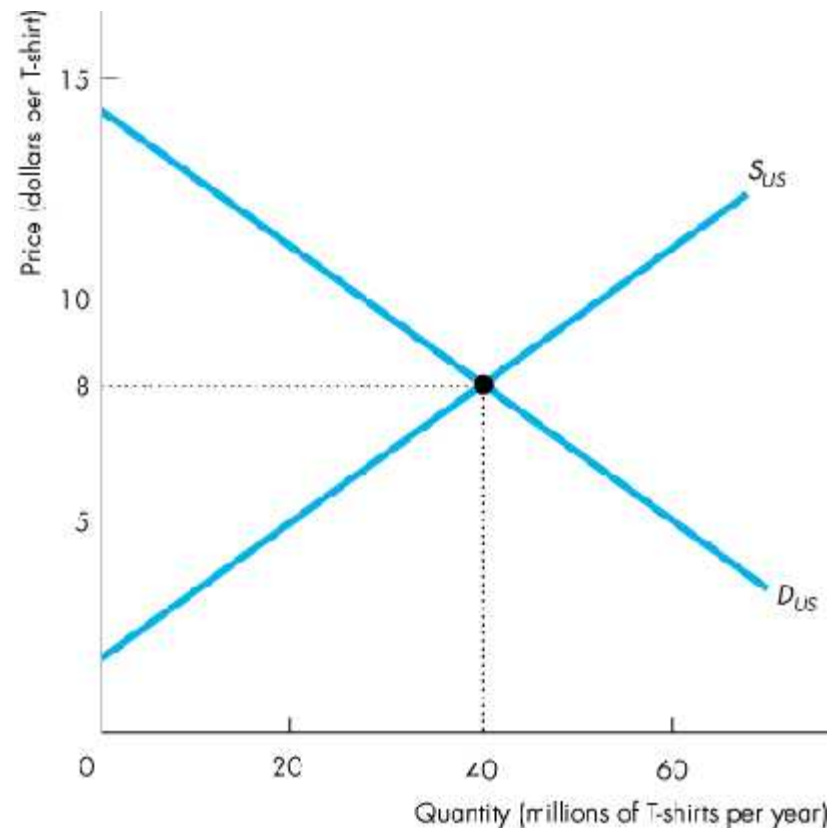


Figure 7.3(b) shows the market in the United States with international trade.

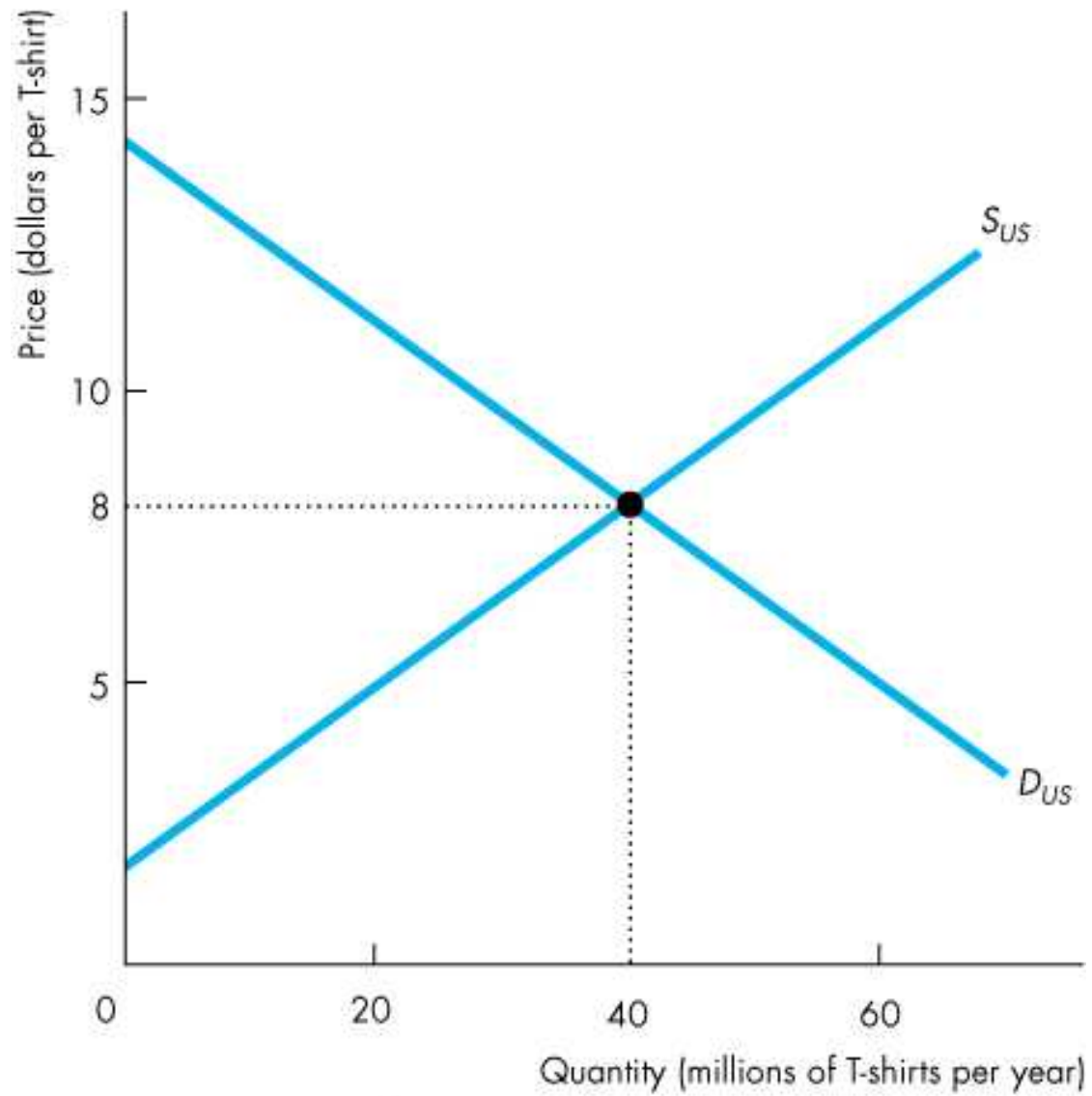
The world price is \$5 a T-shirt.

Consumer surplus expands from area *A* to the area *A* + *B* + *D*.

Producer surplus shrinks to the area *C*.



(b) Gains and losses from imports



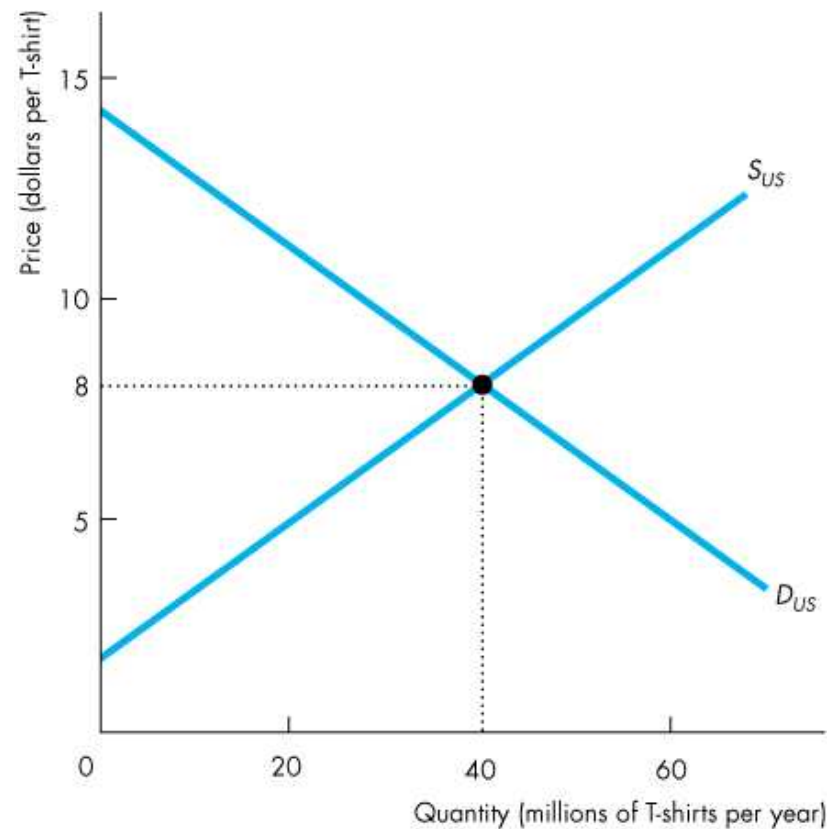
**(b) Gains and losses from imports**

## Winners, Losers, and the Net Gain from Trade

The area  $B$  is transferred from producers to consumers.

Area  $D$  is an increase in total surplus.

Area  $D$  is the net gain from imports.



(b) Gains and losses from imports



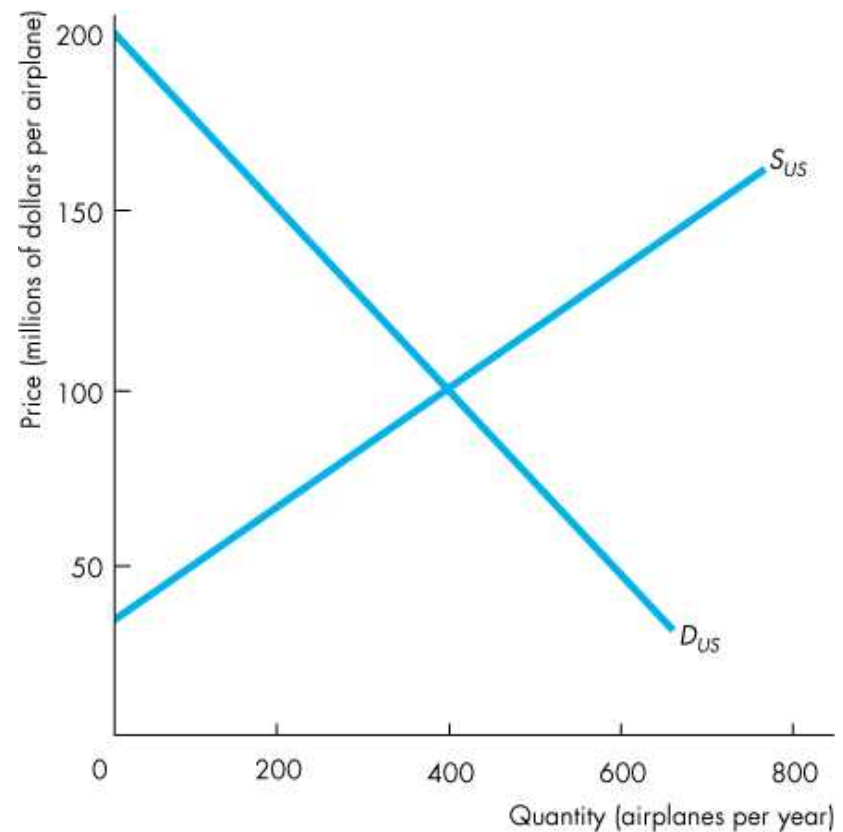
# Winners, Losers, and the Net Gain from Trade



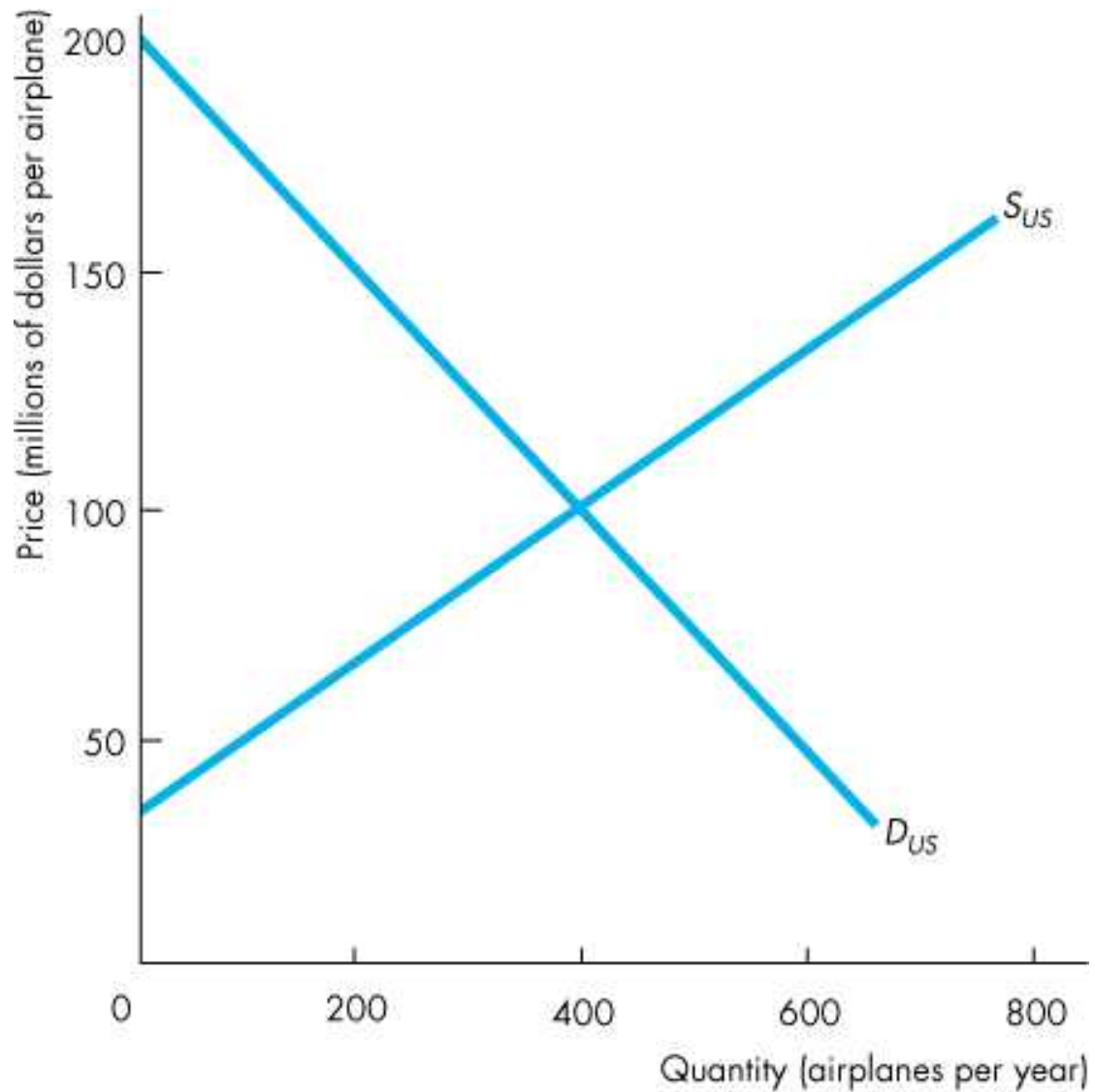
## Gains and Losses from Exports

Figure 7.4(a) shows the market in the United States with no international trade.

Total surplus from airplanes is the sum of the consumer surplus and the producer surplus.



(a) Consumer surplus and producer surplus with no international trade



**(a) Consumer surplus and producer surplus with no international trade**

## Winners, Losers, and the Net Gain from Trade

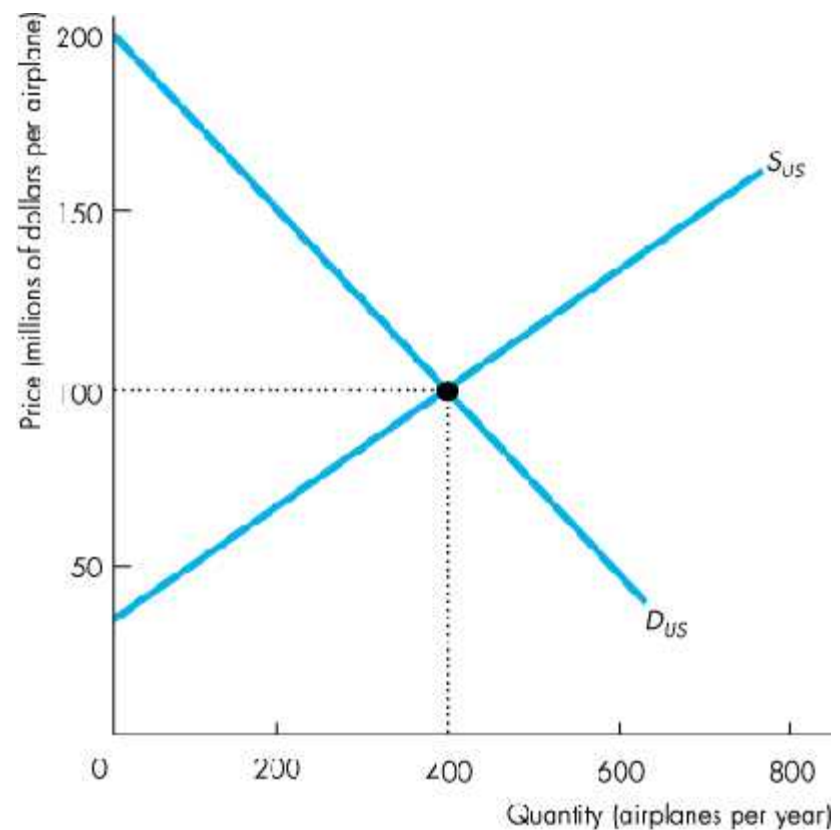


Figure 7.4(b) shows the market in the United States with international trade.

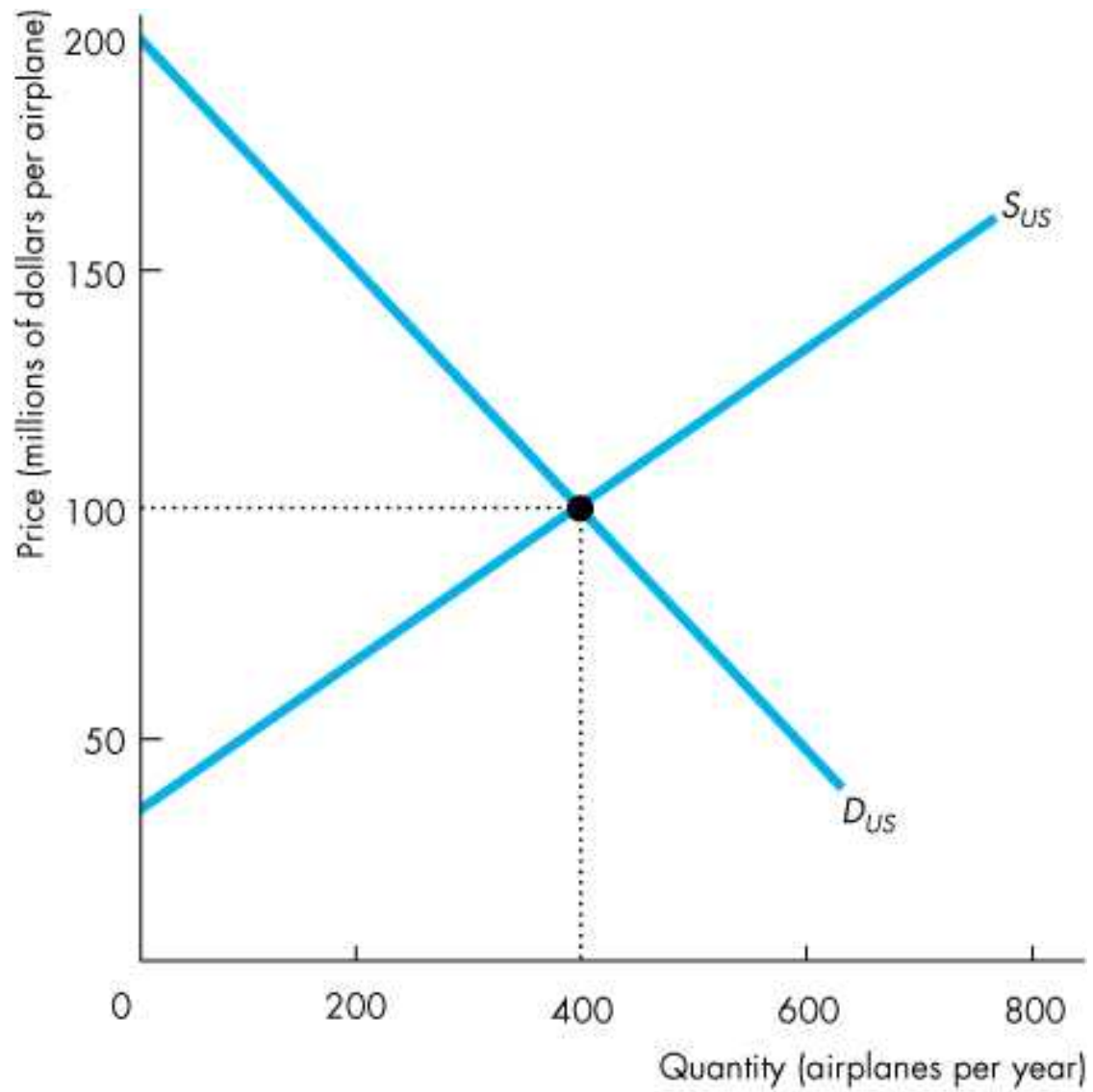
The world price of an airplane is \$150 million.

Consumer surplus shrinks to the area *A*.

Producer surplus expands to the area  $C + B + D$ .



(b) Gains and losses from exports



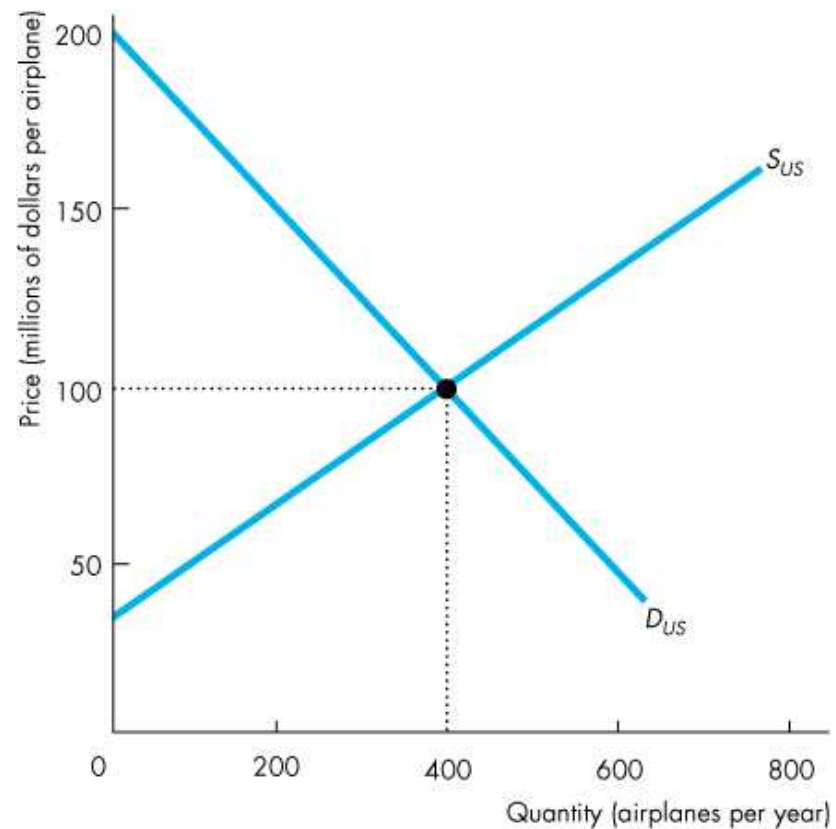
**(b) Gains and losses from exports**

## Winners, Losers, and the Net Gain from Trade

The area  $B$  is transferred from consumers to producers.

Area  $D$  is an increase in total surplus.

Area  $D$  is the net gain from exports.



(b) Gains and losses from exports

# International Trade Restrictions

Governments restrict international trade to protect domestic producers from competition.

Governments use four sets of tools:

- Tariffs
- Import quotas
- Other import barriers
- Export subsidies

# International Trade Restrictions

## Tariffs

A **tariff** is a tax on a good that is imposed by the importing country when an imported good crosses its international boundary.

For example, the government of India imposes a 100 percent tariff on wine imported from the United States.

So when an Indian wine merchant imports a \$10 bottle of Ontario wine, he pays the Indian government \$10 import duty.

# International Trade Restrictions

## The Effects of a Tariff

With free international trade, the world price of a T-shirt is \$5 and the United States imports 40 million T-shirts a year.

Imagine that the United States imposes a tariff of \$2 on each T-shirt imported.

The price of a T-shirt in the United States rises by \$2.

Figure 7.5 shows the effect of the tariff on the market for T-shirts in the United States.



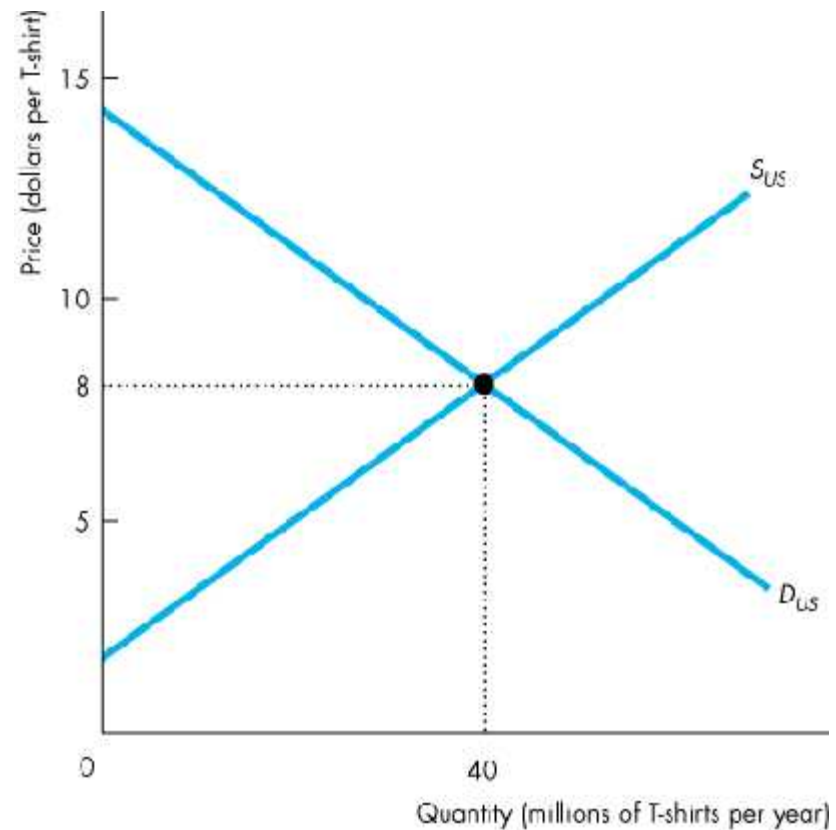
# International Trade Restrictions



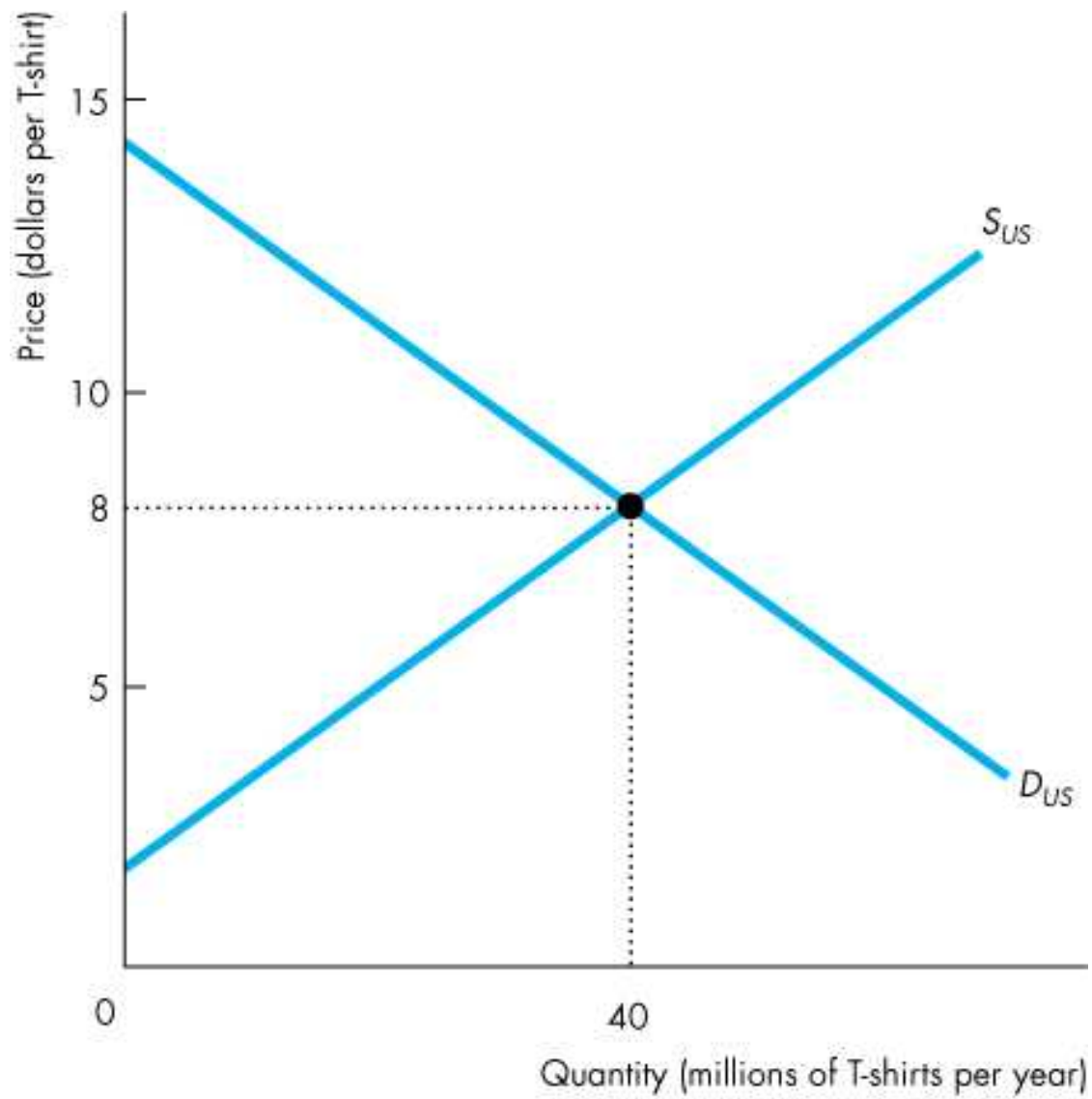
Figure 7.5(a) shows the market before the government imposes the tariff.

The world price of a T-shirt is \$5.

With free international trade, the United States imports 40 million T-shirts a year.



(a) Free trade



**(a) Free trade**

# International Trade Restrictions

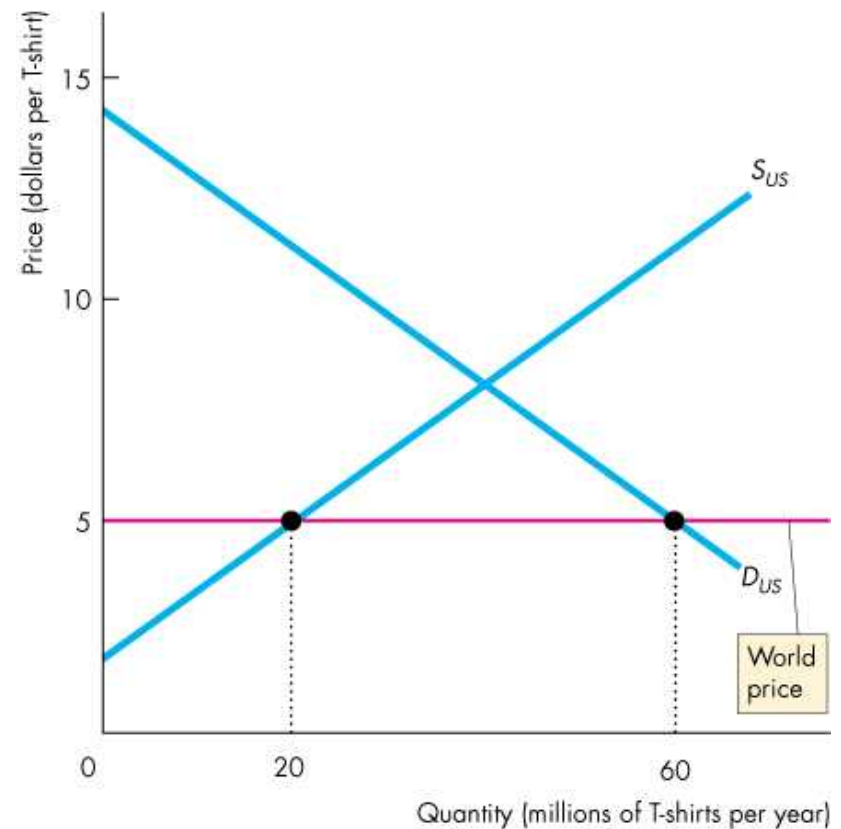


Figure 7.5(b) shows the effect of a tariff on imports.

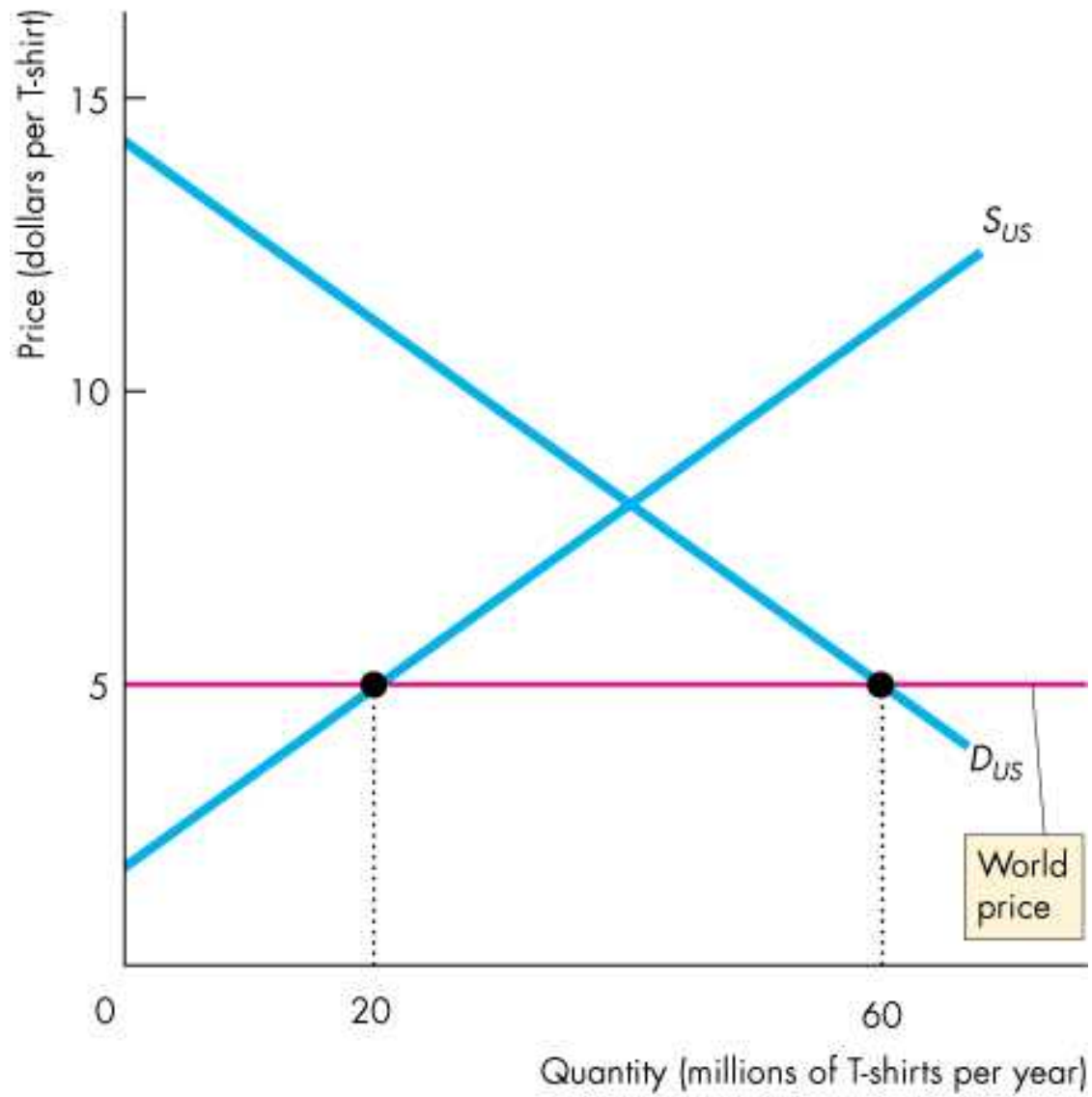
The tariff of \$2 raises the price in the United States to \$7.

U.S. imports decrease to 10 million a year.

U.S. government collects the tax revenue of \$20 million a year.



(b) Market with tariff



**(b) Market with tariff**



# International Trade Restrictions

## Winners, Losers, and Social Loss from a Tariff

When the U.S. government imposes a tariff on imported T-shirts:

- U.S. consumers of T-shirts lose.
- U.S. producers of T-shirts gain.
- U.S. consumers lose more than U.S. producers gain.
- Society loses: A deadweight loss arises.

# International Trade Restrictions

## **U.S. Consumers of T-Shirts Lose**

U.S. buyers of T-shirts now pay a higher price (the world price plus the tariff), so they buy fewer T-shirts.

The combination of a higher price and a smaller quantity bought decreases consumer surplus.

The loss of consumer surplus is the loss to U.S. consumers from the tariff.

# International Trade Restrictions

## **U.S. Producers of T-Shirts Gain**

U.S. garment makers can now sell T-shirts for a higher price (the world price plus the tariff), so they produce more T-shirts.

But the marginal cost of producing a T-shirt is less than the higher price, so the producer surplus increases.

The increased producer surplus is the gain to U.S. garment makers from the tariff.

## International Trade Restrictions

### **U.S. Consumers Lose More than U.S. Producers Gain**

Consumer surplus decreases and producer surplus increases.

Which changes by more?

Figure 7.6 illustrates the change in total surplus.

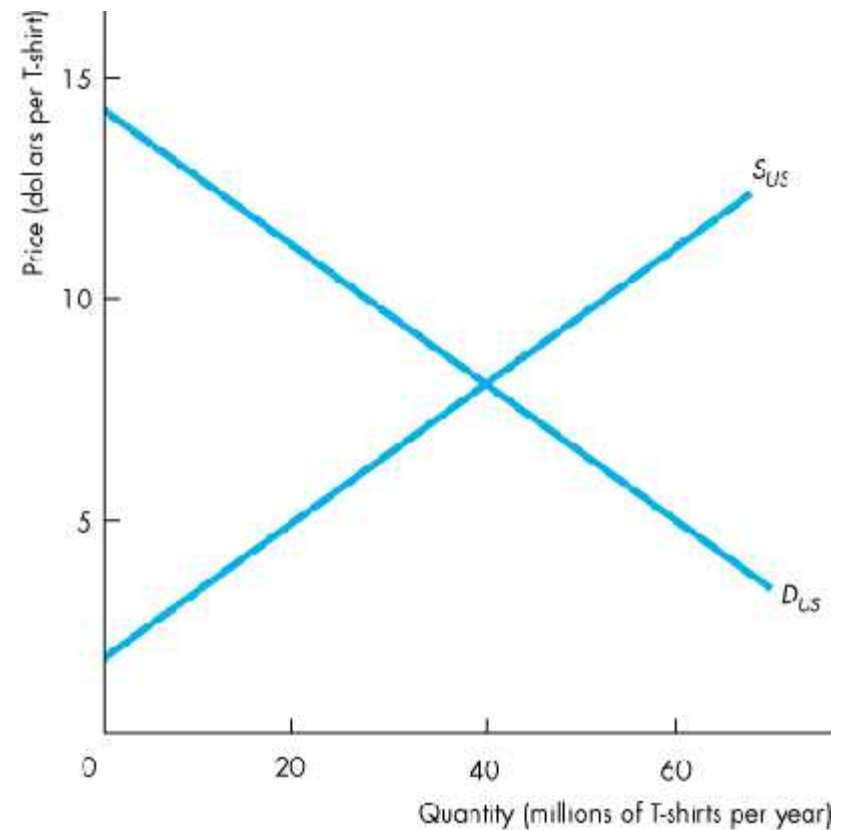


# International Trade Restrictions

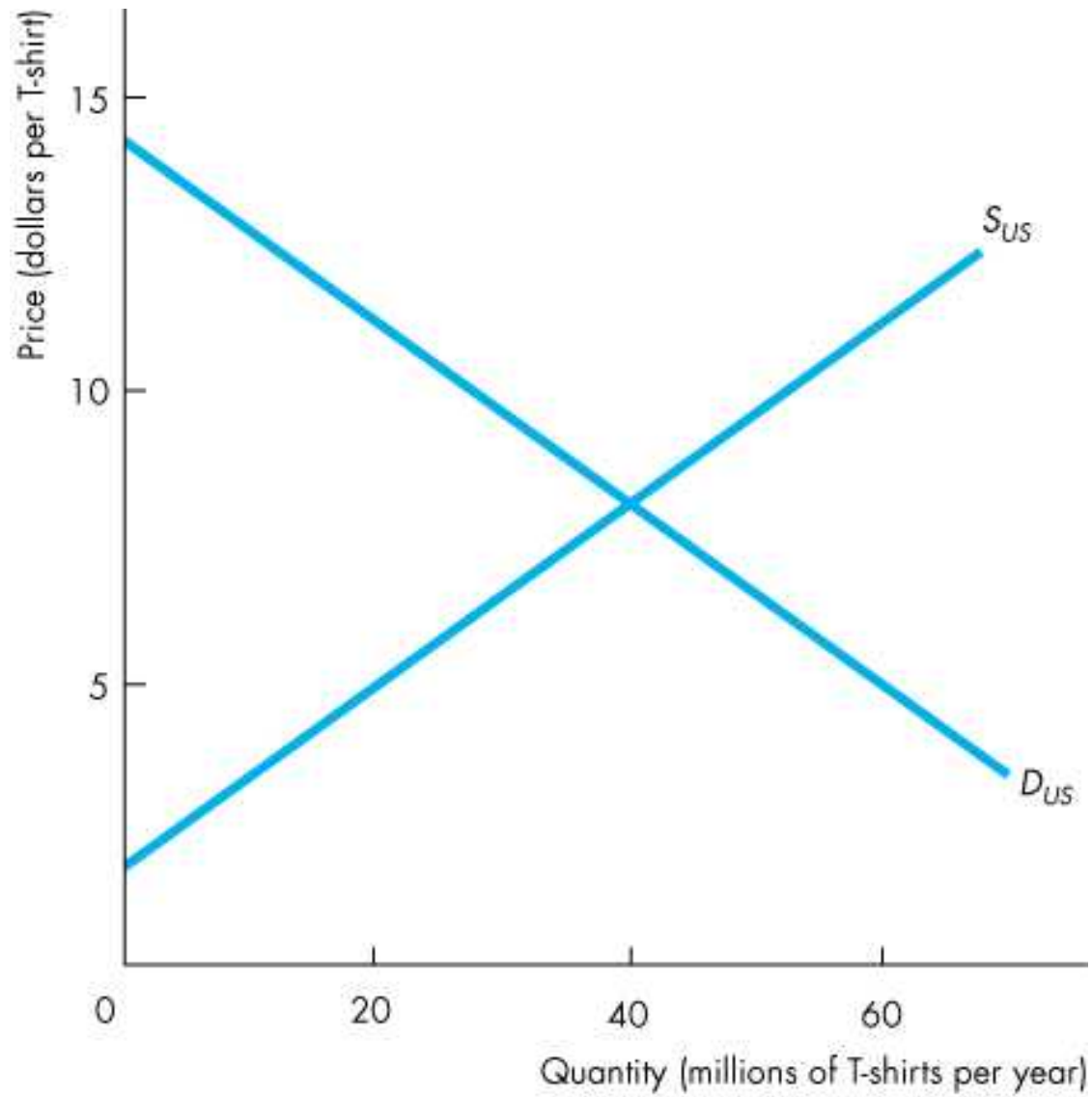


Figure 7.6(a) shows the total surplus with free international trade.

- The world price
  - Imports
  - Consumer surplus
  - Producer surplus
  - The gains from free trade
- Total surplus is maximized.



(a) Free trade



**(a) Free trade**

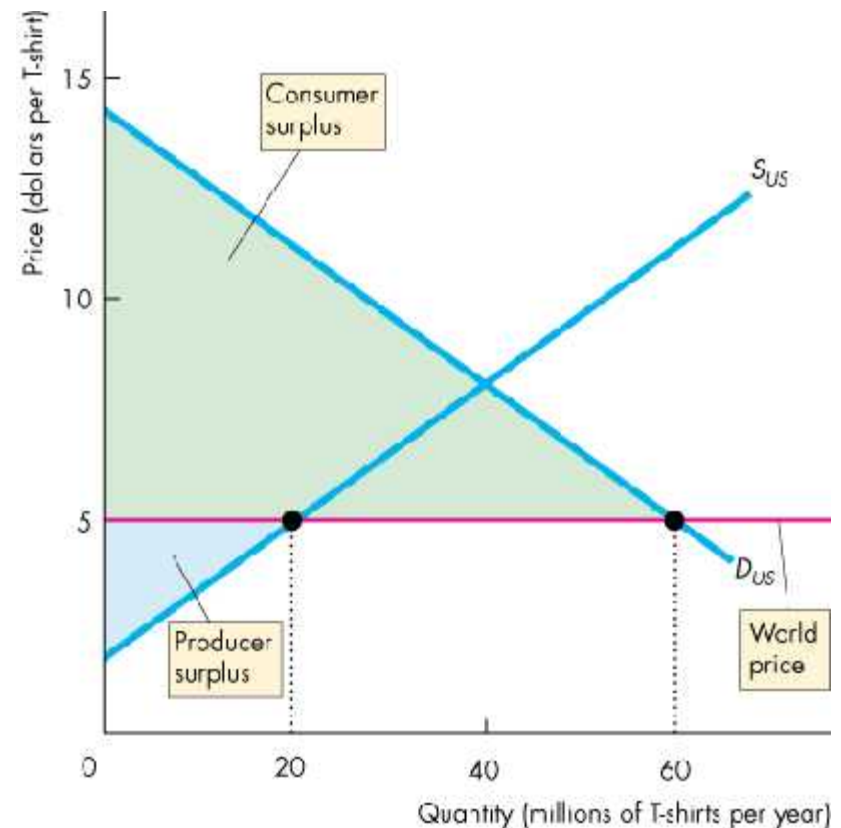
# International Trade Restrictions



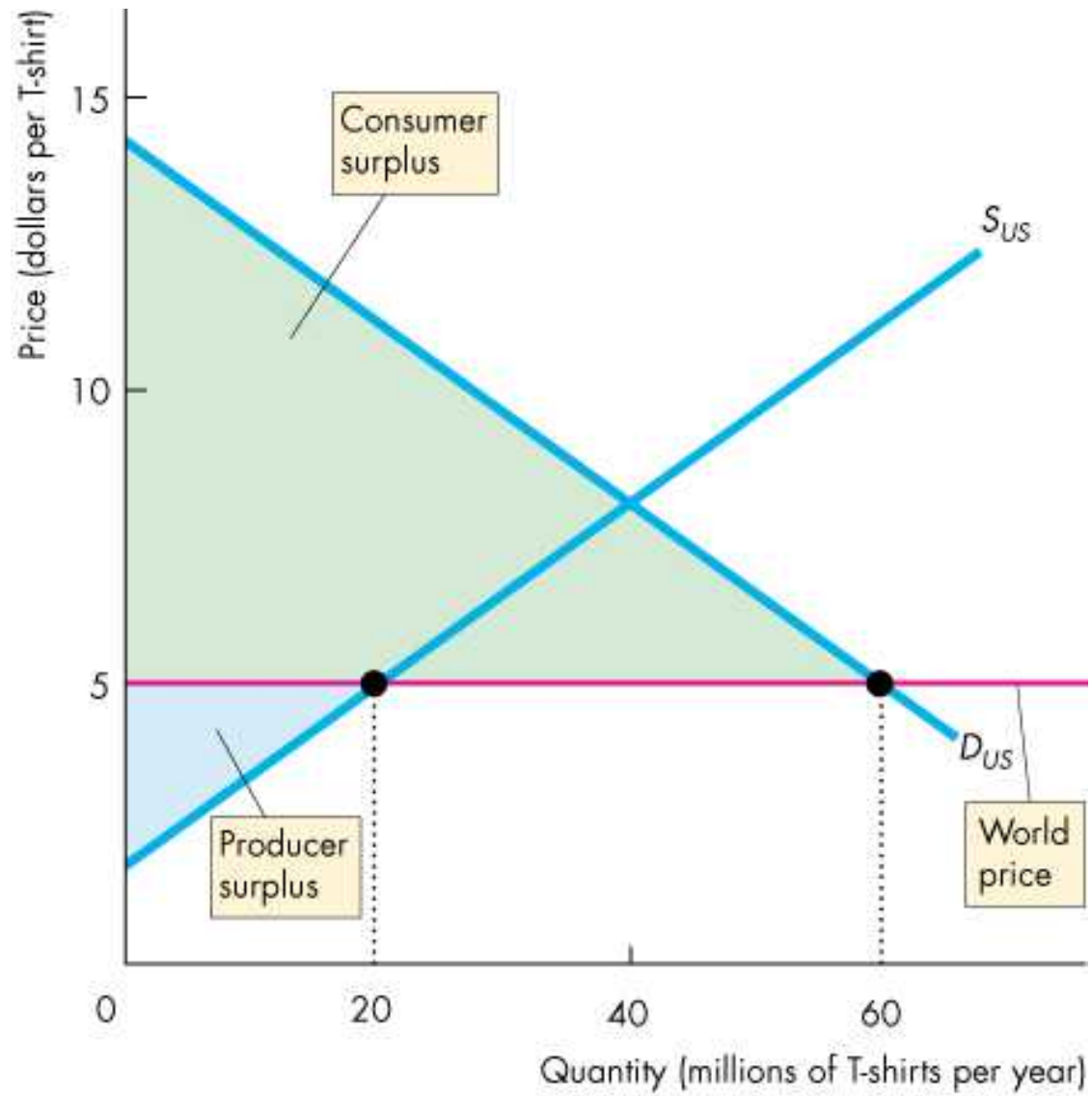
Figure 7.6(b) shows the winners and losers from a tariff.

The \$2 tariff is added to the world price, which increases the price in the United States to \$7.

The quantity of T-shirts produced in the United States increases and the quantity bought in the United States decreases.



(b) Market with tariff



**(b) Market with tariff**



# International Trade Restrictions

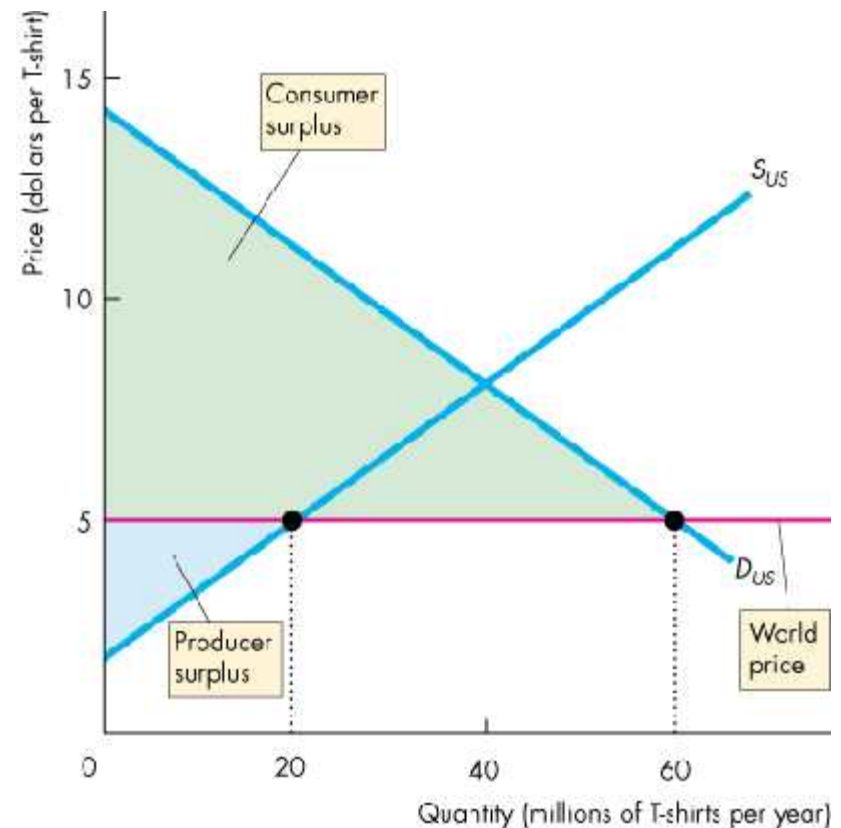
Consumer surplus shrinks to the green area.

Producer surplus expands to the blue area.

Area *B* is a transfer from consumer surplus to producer surplus.

Imports decrease.

Tariff revenue equals area *D*: Imports of T-shirts multiplied by \$2.



(b) Market with tariff



# International Trade Restrictions

## **Society Loses: A Deadweight Loss Arises**

Some of the loss of consumer surplus is transferred to producers and some is transferred to the government as tariff revenue.

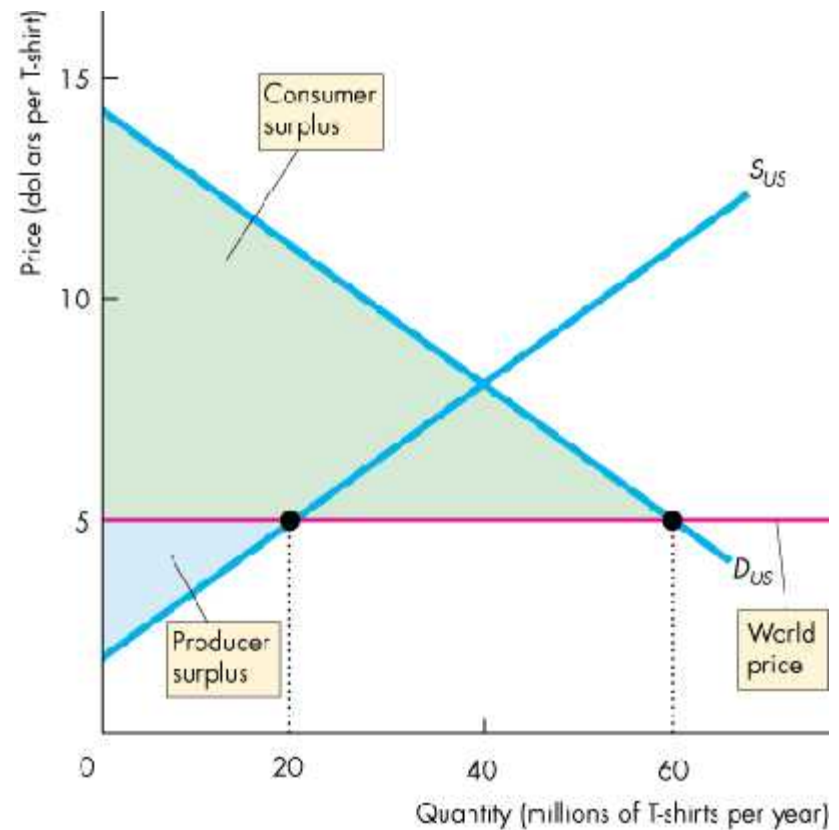
But the increase in production costs and the loss from decreased imports is a social loss.

# International Trade Restrictions

The cost of producing a T-shirt in the United States increases and creates a social loss shown by area *C*.

The decrease in the quantity of imported T-shirts creates a social loss shown by area *E*.

The tariff creates a social loss (deadweight loss) equal to area *C + E*.



(b) Market with tariff

# International Trade Restrictions

## Import Quotas

An **import quota** is a restriction that limits the maximum quantity of a good that may be imported in a given period.

For example, the United States imposes import quotas on food products such as sugar and bananas and manufactured goods such as textiles and paper.



# International Trade Restrictions

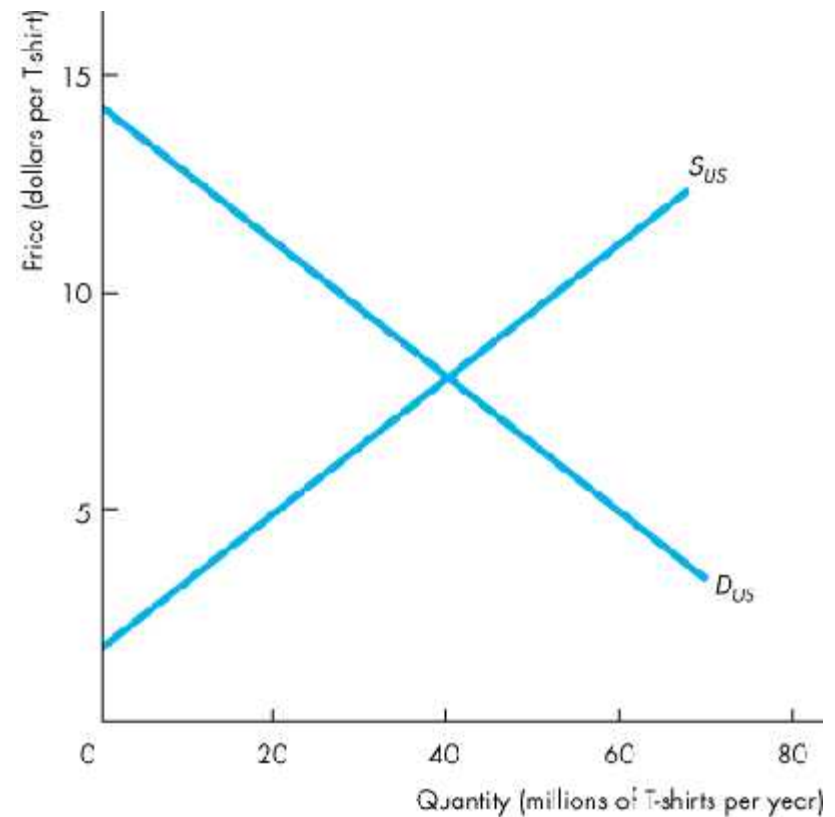


## The Effects of an Import Quota

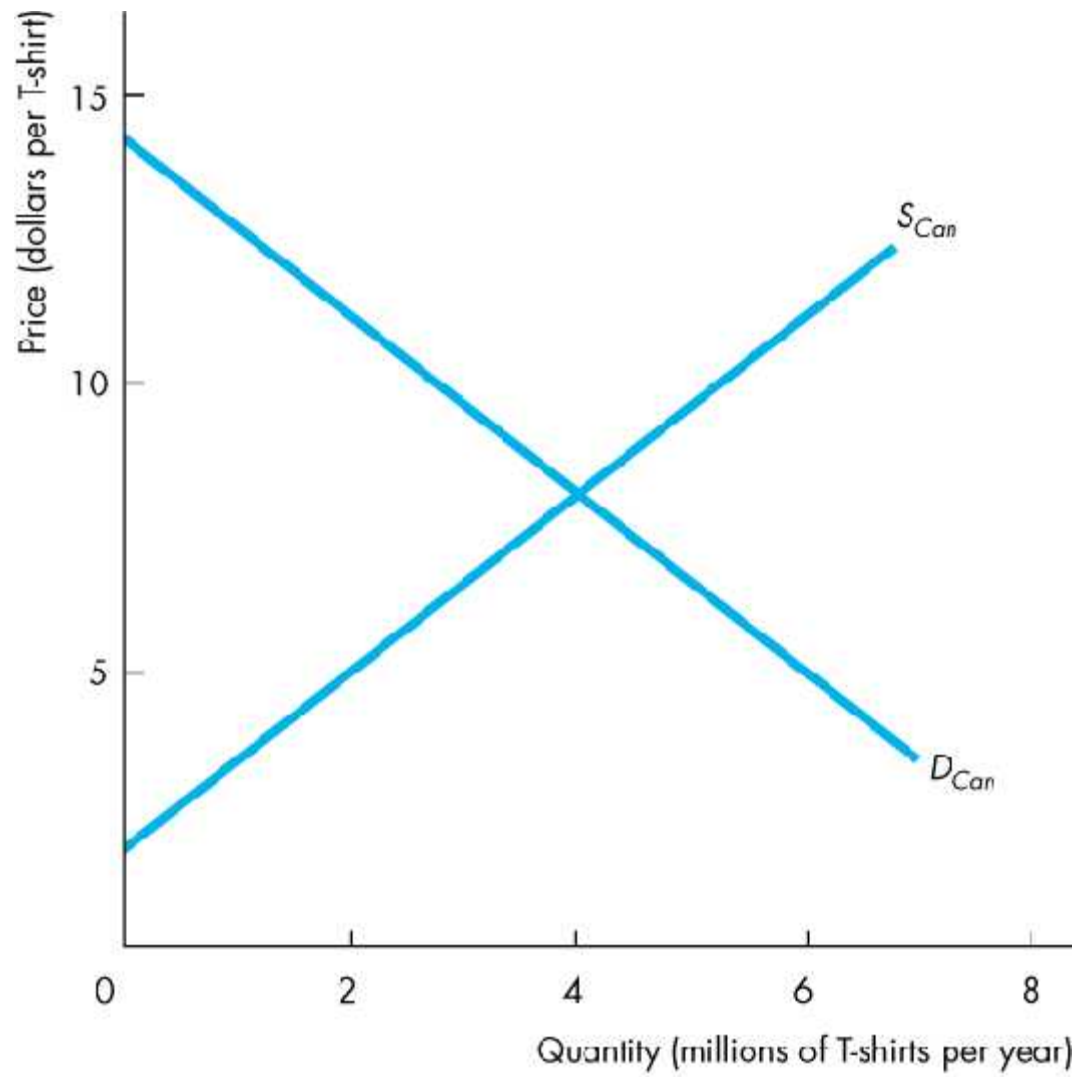
Figure 7.7(a) shows the market before the government imposes an import quota on T-shirts.

The world price is \$5.

The United States imports 40 million T-shirts a year.



(a) Free trade



**(a) Free trade**



# International Trade Restrictions



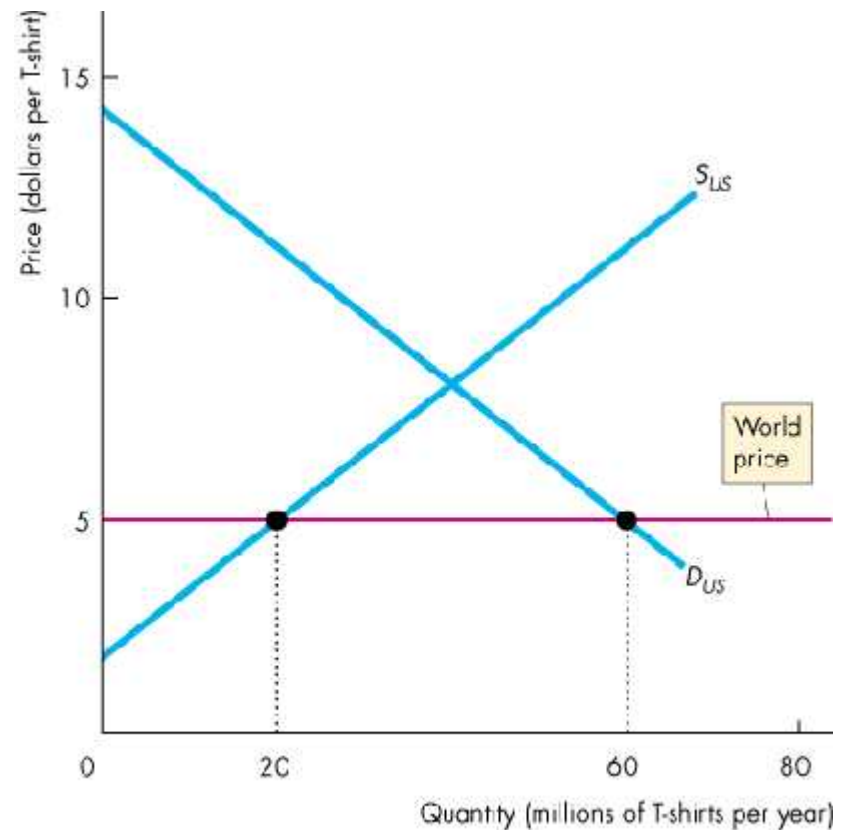
Figure 7.7(b) shows the market with an import quota of 10 million T-shirts.

With the quota, the supply of T-shirts in the United States becomes  $S + \text{quota}$ .

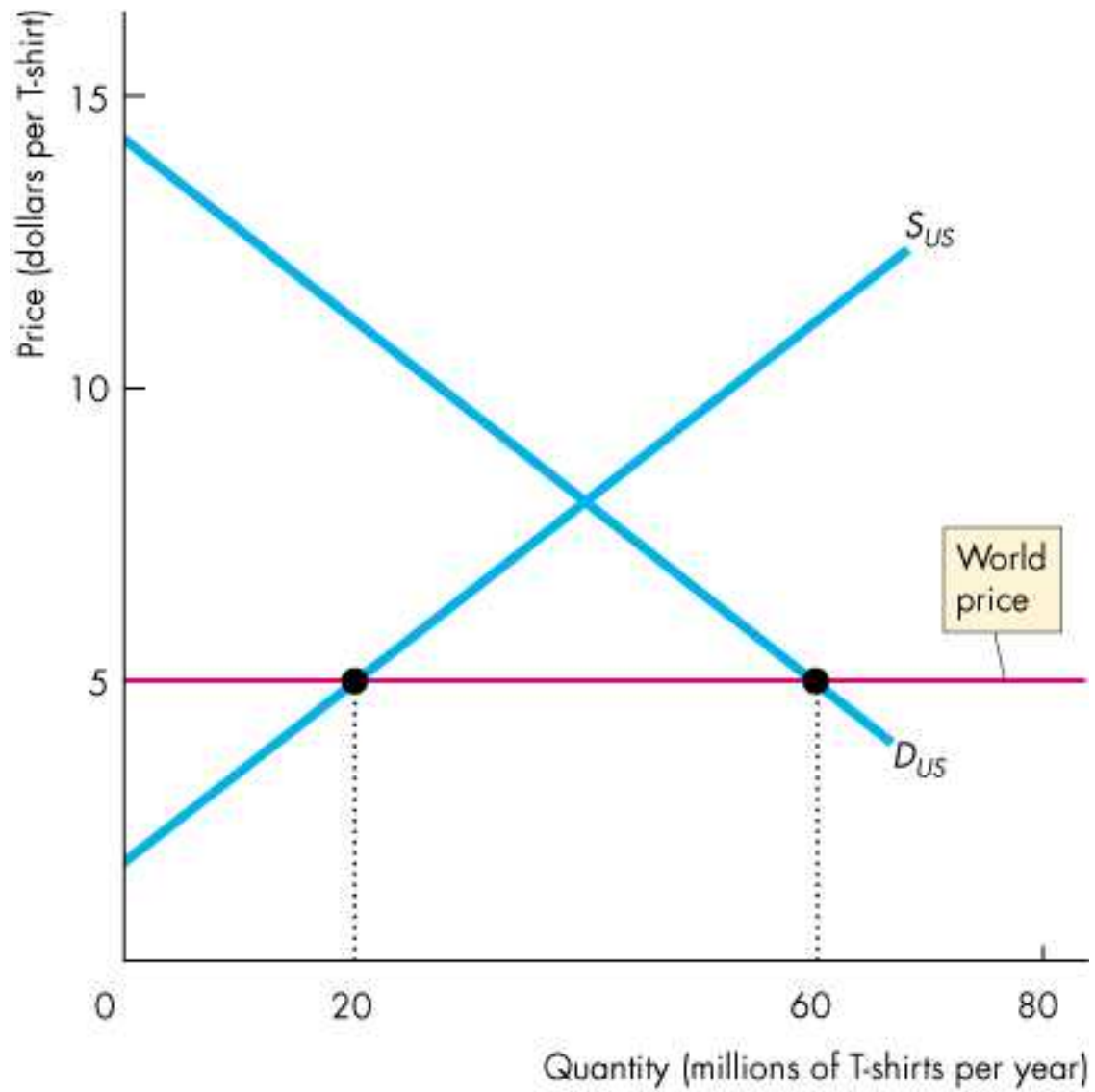
The price rises to \$7.

The quantity produced in the United States increases and the quantity bought decreases.

Imports decrease.



(b) Market with import quota



**(b) Market with import quota**



# International Trade Restrictions

## Winners, Losers, and Social Loss from an Import Quota

When the U.S. government imposes an import quota on imported T-shirts:

- U.S. consumers of T-shirts lose.
- U.S. producers of T-shirts gain.
- Importers of T-shirts gain.
- Society loses: A deadweight loss arises.

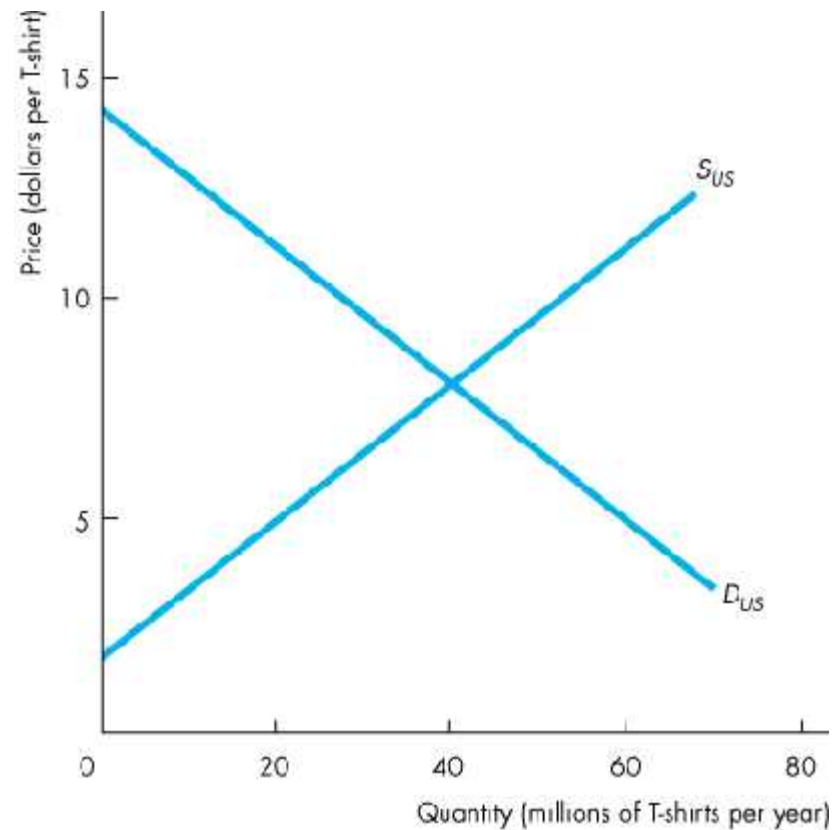
Figure 7.8 illustrates the winners and losers with an import quota.

# International Trade Restrictions

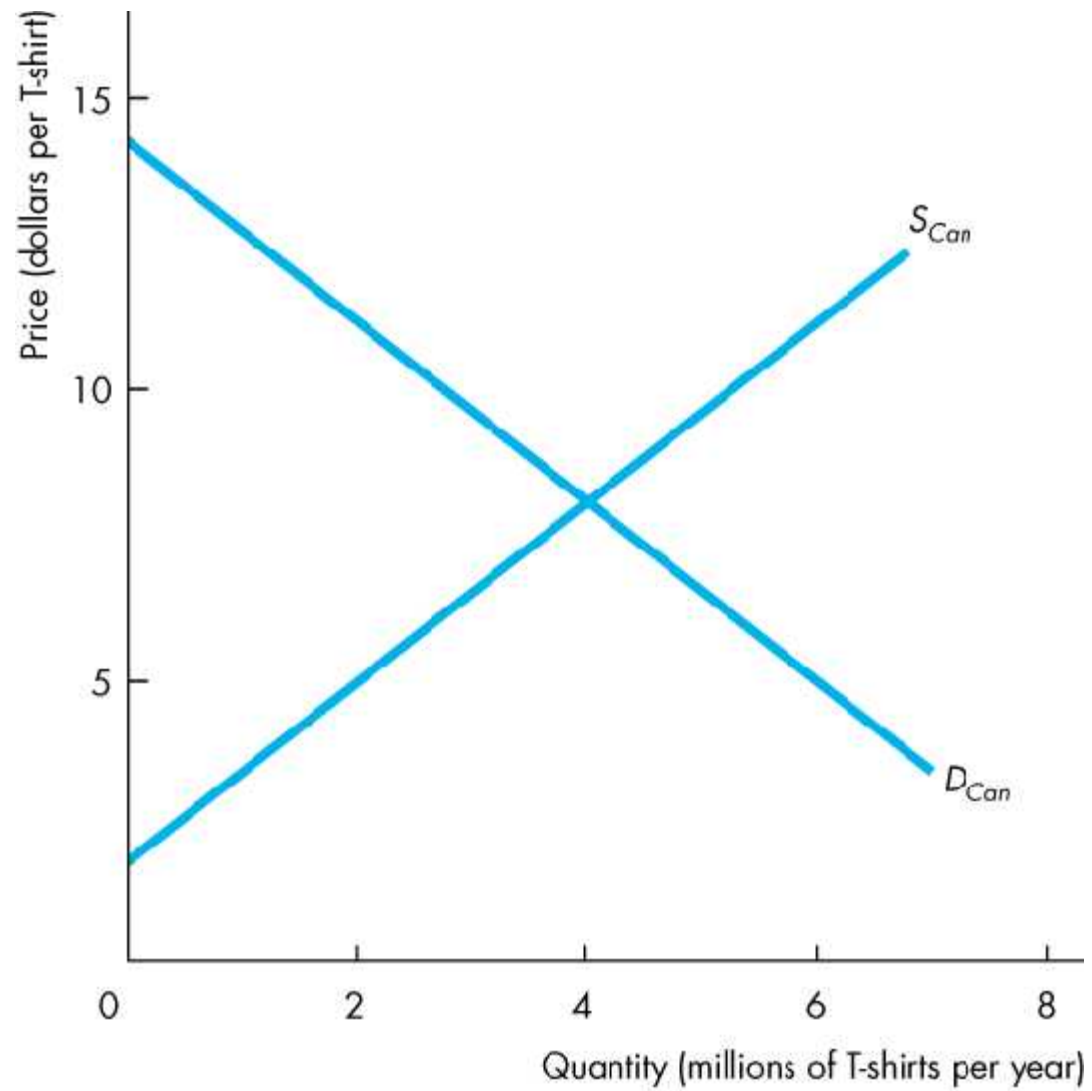


Figure 7.8(a) shows the total surplus with free international trade.

Total surplus is maximized.



(a) Free trade



**(a) Free trade**



# International Trade Restrictions

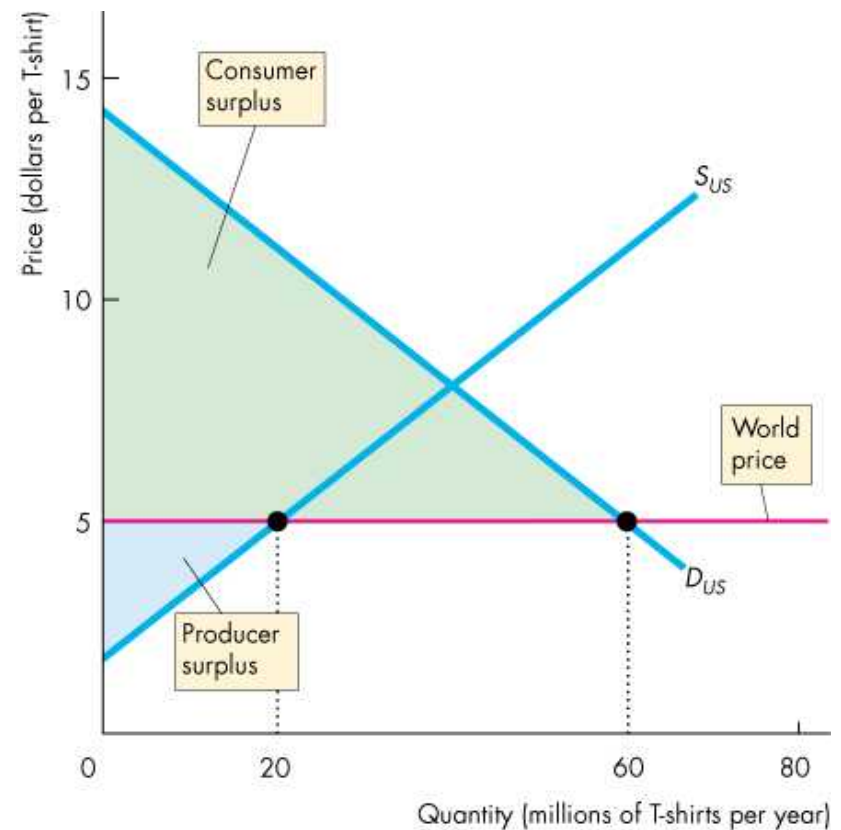


The import quota raises the price of a T-shirt to \$7 and decreases imports.

Area *B* is transferred from consumer surplus to producer surplus.

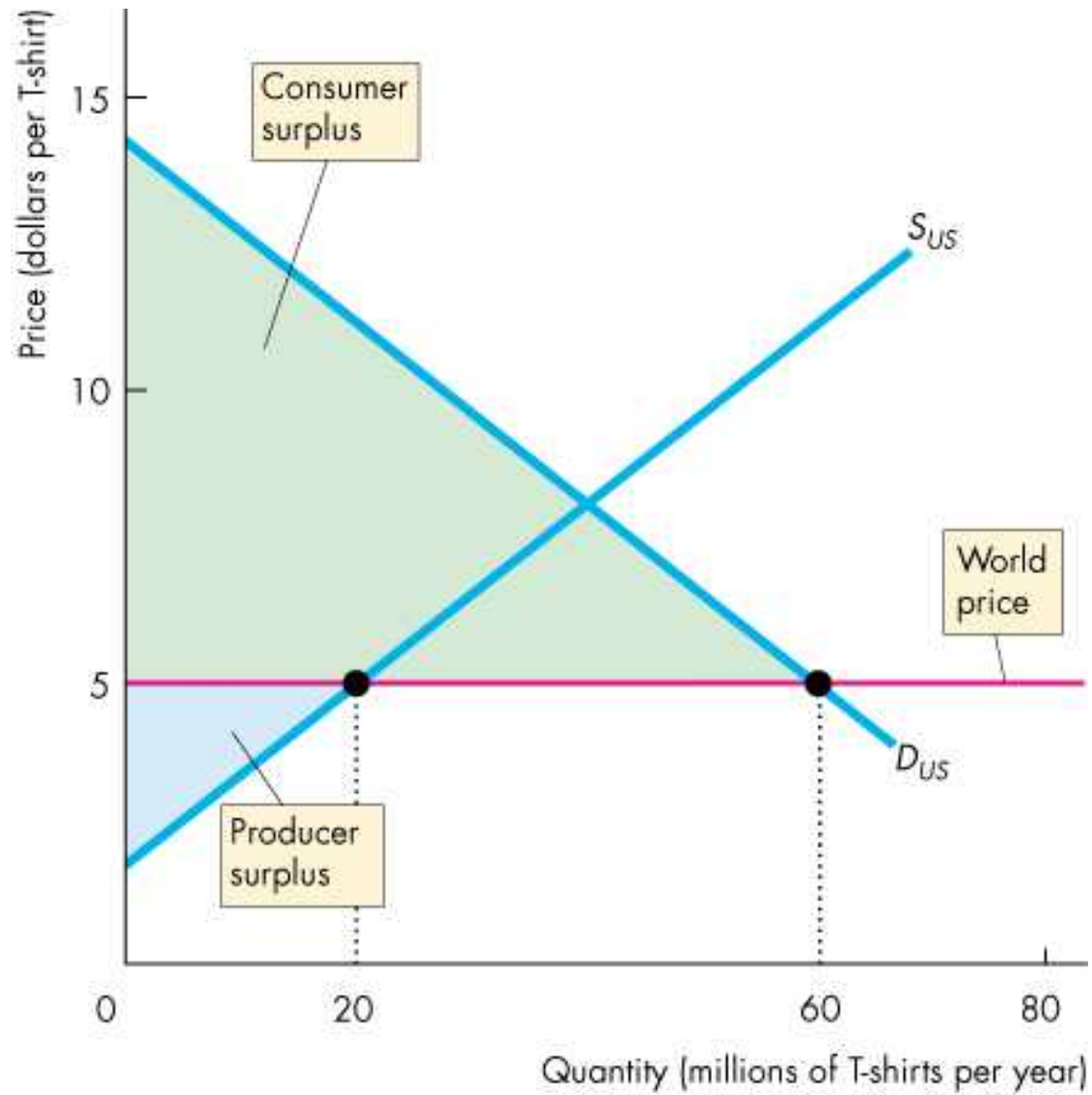
Importers' profit is the sum of the two areas *D*.

The area *C + E* is the loss of total surplus—a deadweight loss created by the quota.



(b) Market with import quota





**(b) Market with import quota**



# International Trade Restrictions

## Other Import Barriers

Thousands of detailed health, safety, and other regulations restrict international trade.

## Export Subsidies

An *export subsidy* is a payment made by the government to a domestic producer of an exported good.

Export subsidies bring gains to domestic producers, but they result in overproduction in the domestic economy and underproduction in the rest of the world and so create a deadweight loss.

# The Case Against Protection

Despite the fact that free trade promotes prosperity for all countries, trade is restricted.

Two classical arguments for restricting international trade are

- The infant-industry argument
- The dumping argument

# The Case Against Protection

## The Infant-Industry Argument

The **infant-industry argument** is that it is necessary to protect a new industry from import competition to enable it to grow into a mature industry that can compete in world markets.

This argument is based on the concept of *dynamic competitive advantage*, which can arise from *learning-by-doing*.

Learning-by-doing is a powerful engine of productivity growth, but this fact does not justify protection.

# The Case Against Protection

## The Dumping Argument

**Dumping** occurs when foreign a firm sells its exports at a lower price than its cost of production.

This argument does not justify protection because

1. It is virtually impossible to determine a firm's costs.
2. Hard to think of a global monopoly, so even if all domestic firms are driven out, alternatives would still exist.
3. If the market is truly a global monopoly, better to regulate it rather than restrict trade.

# The Case Against Protection

Other common arguments for protection are that it

- Saves jobs.
- Allows us to compete with cheap foreign labor.
- Penalizes lax environmental standards.
- Prevents rich countries from exploiting developing countries.

# The Case Against Protection

## Saves Jobs

The idea that buying foreign goods costs domestic jobs is wrong.

Free trade destroys some jobs and creates other better jobs.

Free trade also increases foreign incomes and enables foreigners to buy more domestic production.

Protection to save particular jobs is very costly.

# The Case Against Protection

## Allows Us to Compete with Cheap Foreign Labor

The idea that a high-wage country cannot compete with a low-wage country is wrong.

Low-wage labor is less productive than high-wage labor.

And wages and productivity tell us nothing about the source of gains from trade, which is comparative advantage.



# The Case Against Protection

## Penalizes Lax Environmental Standards

The idea that protection is good for the environment is wrong.

Free trade increases incomes and poor countries have lower environmental standards than rich countries.

These countries cannot afford to spend as much on the environment as a rich country can and sometimes they have a comparative advantage at doing “dirty” work, which helps the global environment achieve higher environmental standards.

# The Case Against Protection

## Prevents Rich Countries from Exploiting Developing Countries

By trading with people in poor countries, we increase the demand for the goods that these countries produce and increase the demand for their labor.

The increase in the demand for labor raises their wage rate.

Trade can expand the opportunities and increase the incomes of people in poor countries.

# The Case Against Protection

## Offshore Outsourcing

A firm in the United States can obtain the things it sell in four ways:

- Hire U.S. labor and produce in the United States.
- Hire foreign labor and produce in another country.
- Buy finished goods, components, or services from firms in the United States.
- Buy finished goods, components, or services from firms in other countries.

## **The Case Against Protection**

**Outsourcing** occurs when a firm in the United States buys finished goods, components or services from firms in the United States or buys finished goods, components, or services from firms in other countries.

**Offshoring** occurs when a firm in the United States hires foreign labor and produces in other countries or buys finished goods, components, or services from firms in other countries.

**Offshore outsourcing** occurs when a firm in the United States buys finished goods, components, or services from firms in other countries.

# The Case Against Protection

## Why Is International Trade Restricted?

The key reason why international trade restrictions are popular the United States and most other developed countries is an activity called rent seeking.

**Rent seeking** is lobbying and other political activity that seeks to capture the gains from trade.

You've seen that free trade benefits consumers but shrinks the producer surplus of firms that compete in markets with imports.

## The Case Against Protection

Those who gain from free trade are the millions of consumers of low-cost imports.

But the benefit per individual consumer is small.

Those who lose are the producers of import-competing items.

Compared to the millions of consumers, there are only a few thousand producers.

These producers have a strong incentive to incur the expense of lobbying *for* a tariff and *against* free trade.

## The Case Against Protection

The gain from free trade for any one person is too small for that person to spend much time or money on a political organization to lobby *for* free trade.

Each group weighs benefits against costs and chooses the best action for themselves.

But the group against free trade will undertake more political lobbying than will the group for free trade.