# Chapter 9

1. Use Exhibit 3 to answer the following questions.

### Exhibit 3



a. If trade is not allowed, what is the equilibrium price and quantity in this market?

### Answer:

Price = €4, quantity = 40 units.

b. If trade is allowed, will this country import or export this commodity? Why?

#### Answer:

Export because the world price is above the domestic price which implies that this country has a comparative advantage in the production of this good.

c. If trade is allowed, what is the price at which the good is sold, the domestic quantity supplied and demanded, and the quantity imported or exported?

### Answer:

Price = €6, quantity supplied = 60 units, quantity demanded = 20 units, quantity exported = 40 units.

d. What area corresponds to consumer surplus if no trade is allowed?

## Answer:

A + B + C

e. What area corresponds to consumer surplus if trade is allowed?

## Answer:

Α

f. What area corresponds to producer surplus if no trade is allowed?

Answer:

D + E

g. What area corresponds to producer surplus if trade is allowed?

Answer:

B+C+D+E+F

h. If free trade is allowed, who gains and who loses, the consumers or the producers, and what area corresponds to their gain or loss?

#### Answer:

Consumers lose B + C, producers gain B + C + F

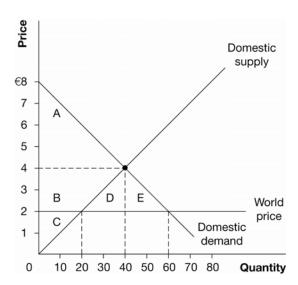
i. What area corresponds to the gains from trade?

### Answer:

F

2. Use Exhibit 4 to answer the following questions.

### Exhibit 4



a. If trade is not allowed, what is the equilibrium price and quantity in this market?

### Answer:

Price = €4, quantity = 40 units.

b. If trade is allowed, will this country import or export this commodity? Why?

#### Answer:

Import because the world price is below the domestic price, which implies that other countries have a comparative advantage in the production of this good.

c. If trade is allowed, what is the price at which the good is sold, the domestic quantity supplied and demanded, and the quantity imported or exported?

### Answer:

Price = €2, quantity supplied = 20 units, quantity demanded = 60 units, quantity imported = 40 units.

d. What area corresponds to consumer surplus if no trade is allowed?

## Answer:

Α

e. What area corresponds to consumer surplus if trade is allowed?

## Answer:

A + B + D + E

f. What area corresponds to producer surplus if no trade is allowed?

### Answer:

B + C

g. What area corresponds to producer surplus if trade is allowed?

### Answer:

 $\mathcal{C}$ 

h. If free trade is allowed, who gains and who loses, the consumers or the producers, and what area corresponds to their gain or loss?

#### Answer:

Consumers gain B + D + E, producers lose B

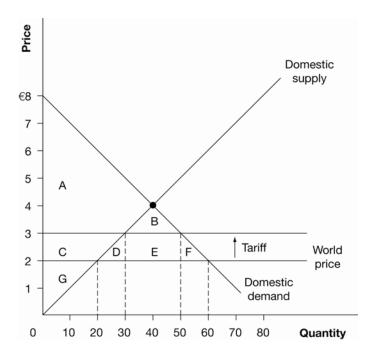
i. What area corresponds to the gains from trade?

### Answer:

D + E

3. Use Exhibit 5 to answer the following questions.

## Exhibit 5



a. If free trade is allowed, what is the domestic quantity supplied, domestic quantity demanded, and the quantity imported?

#### Answer.

Quantity supplied = 20 units, quantity demanded = 60 units, quantity imported = 40 units.

b. If a €1 tariff is placed on this good, what is the domestic quantity supplied, domestic quantity demanded, and the quantity imported?

## Answer:

Quantity supplied = 30 units, quantity demanded = 50 units, quantity imported = 20 units.

c. What area corresponds to consumer and producer surplus before the tariff is applied?

## Answer:

Consumer surplus = A + B + C + D + E + F, producer surplus = G

d. What area corresponds to consumer surplus, producer surplus, and government revenue after the tariff is applied?

#### Answer:

Consumer surplus = A + B, producer surplus = C + G, government revenue = E

e. What area corresponds to the deadweight loss associated with the tariff?

### Answer:

D + F

f. Describe in words the sources of the deadweight loss from a tariff.

### Answer:

First, the rise in the price due to the tariff causes *overproduction* because units are produced that cost more than the world price. Second, the rise in price causes *underconsumption* because consumers fail to consume units where the value to consumers is greater than the world price.

g. What is the size of the import quota that would generate results most similar to this €1 tariff?

### Answer:

Import quota of 20 units—the same number of units imported with the €1 tariff.

h. What is the size of the tariff that would eliminate trade altogether (i.e. that would return the market to its no-trade domestic solution)?

#### Answer:

A €2 tariff would raise the price to €4 (the no-trade domestic price) and eliminate trade.