Solutions for Issues in Economics Today 10th Edition by Guell

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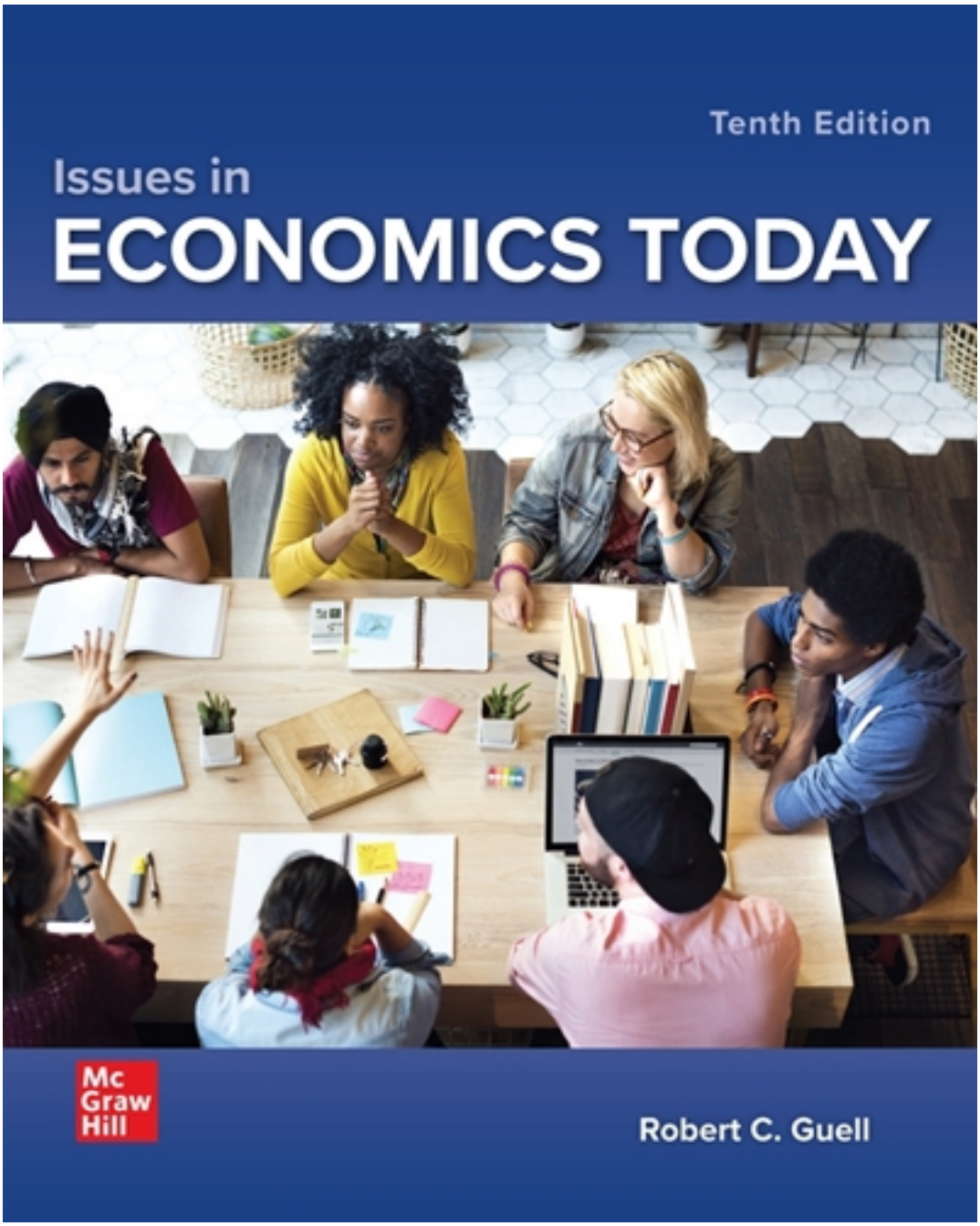


Solutions

Chapter 2
Supply and Demand

Learning Objectives

After reading this chapter you should be able to:

LO1 Construct a supply and demand model.

LO2 Define and explain the terms associated with the supply and demand model.

LO3 Explain the assumptions of individual and firm behavior that support the supply and demand model.

LO4 List the determinants of supply and those of demand and demonstrate the impact of changes in those determinants on a supply and demand diagram.

Chapter Outline

- Supply and Demand Defined
- The Supply and Demand Model
- All about Demand
- All about Supply
- Determinants of Demand
- Determinants of Supply
- The Effect of Changes in Price Expectations on the Supply and Demand Model
- Kick It Up a Notch: Why the New Equilibrium?

Teaching Tip
Emphasize that this chapter is fundamental to nearly everything they will study in the course and that this is not a chapter they can fake.

SUPPLY AND DEMAND DEFINED

Definitions

- **Supply and demand**: the name of the most important model in all economics
- **Price**: the amount of money that must be paid for a unit of output
- **Market**: any mechanism by which buyers and sellers negotiate price
- **Output**: the good or service and/or the amount of it sold
- **Consumers**: those people in a market who are wanting to exchange money for goods or services
- **Producers**: those people in a market who are wanting to exchange goods or services for money
- **Equilibrium price**: the price at which no consumers wish they could have purchased more goods at that price; no producers wish that they could have sold more
- **Equilibrium quantity**: the amount of output exchanged at the equilibrium price

Quantity Demanded and Quantity Supplied

- **Quantity demanded**: how much consumers are willing and able to buy at a particular price during a particular period of time
- **Quantity supplied**: how much firms are willing and able to sell at a particular price during a particular period of time

Teaching Tip
Acknowledge the fact that popular press references to supply or demand often are references to quantity supplied or quantity demanded.

Markets

- **Capitalism**
  - Free markets in financial capital as well as goods and services
  - Freedom to borrow or lend
  - Profits go to the owners of capital
- **Communism**
  - Capital and the profit that it generates is controlled by a government authority.
  - A government authority decides how the money is used.
- **Socialism**
  - A significant part of the profit generated by financial capital goes to government in the form of taxes.
  - A government uses the tax money to counter the wealth impacts of the distribution of profit.

Teaching Tip
It is worth noting that every industrialized country has an element of a social safety net and that most countries have (legal or illegal) private markets for goods and services. In that sense, there is a spectrum of economic systems and government intervention.

Heritage Index of Economic Freedom

- Free
  - Singapore
  - New Zealand
  - Australia
  - Switzerland
  - Ireland
  - Taiwan
- Oppressed
  - Chad
  - Zambia
  - Micronesia
  - Burundi
  - Algeria
  - Equatorial Guinea

Teaching Tips

1) *Note that the index comes from the Heritage Foundation and the Wall Street Journal. Refer to their political bent.*
2) *Note that under President Obama, the United States fell off the "free" list and moved onto the "mostly free" list. This could also be a sign of politically motivated measurement.*
3) *Use this as an example of the difference between normative and positive analysis.*
4) ***Let students discuss** whether this appears to be an objectively derived set of lists. Is it a normative list? Note the use of the word "free." Is that not normative?*

The Scientific Method and Ceteris Paribus

- Scientists
  - conduct experiments in laboratories.
  - use replication and verification to ensure the accuracy of their conclusions.
- Social scientists
  - cannot experiment on their subjects.
  - must use models and look at the effects of individual variables within those models.
- Economists
  - hold variables constant within models to examine the effect of other variables.
  - use the Latin phrase ***ceteris paribus*** which means "holding other things equal" to identify this is the case.

Teaching Tips

1) *Discuss how difficult it is to conduct controlled experiments in economics. You can cite, for instance, a Rand Corporation insurance study (from the 1970s) where people were given different health insurance plans to see how they would react (i.e. consuming more, seeing the doctor more).*
2) *Note for students that a how field of behavioral economics has developed in which experiments are conducted to test basic theories of human choice.*
3) ***Let students discuss** the morality of experiments such as this.*

Demand and Supply

- **Demand** is the relationship between price and quantity demanded, ceteris paribus.
- **Supply** is the relationship between price and quantity supplied, ceteris paribus.

Teaching Tip: Emphasize the word "relationship." Quantity demanded/supplied is a "point" on a demand/supply "relationship."

THE SUPPLY AND DEMAND MODEL

The Demand Schedule

- The **Demand Schedule** presents, in tabular form, the price and quantity demanded for a good.

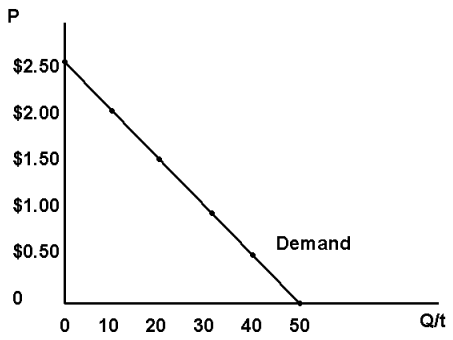
Table 2.1
Demand schedule.

Price	Individual Q_D	Q_D for 10,000*
$0.00	5	50,000
$0.50	4	40,000
$1.00	3	30,000
$1.50	2	20,000
$2.00	1	10,000
$2.50	0	0

*This is ceteris paribus at work, holding the number and type of people constant.

The Demand Curve

Drawing Tip
Plot each point individually from the demand schedule.



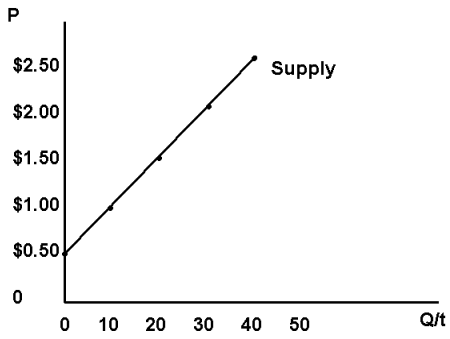
The Supply Schedule

- The **Supply Schedule** presents, in tabular form, the price and quantity supplied for a good.

Table 2.2
Supply schedule.

Price	Individual Q_s	Q_s for 10 Firms
$0.00	0	0
$0.50	0	0
$1.00	1,000	10,000
$1.50	2,000	20,000
$2.00	3,000	30,000
$2.50	4,000	40,000

The Supply Curve



Drawing Tip
Plot each point individually from the supply schedule

Equilibrium, Shortages, and Surpluses

- **Equilibrium**
  - is the point where the amount that consumers want to buy and the amount that firms want to sell are the same.
  - This occurs where the supply curve and the demand curve cross.
- **Shortage (excess demand):** the condition where firms do not want to sell as many as consumers want to buy
- **Surplus (excess supply):** the condition where firms want to sell more than consumers want to buy

Teaching Tip: Emphasize that these terms are NOT the popular press terms. For instance, in a weather disaster, generators and bottled water would be very expensive and only those willing to pay the highest

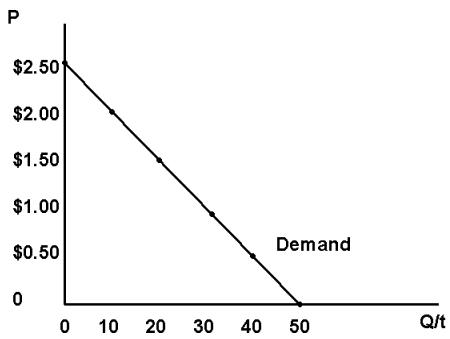
price would be able to buy them. That would not constitute a shortage. It would only be when there was a law preventing price increases (gouging) that a "shortage" would appear.

Table 2.3
Supply and demand schedules with shortage and surplus.

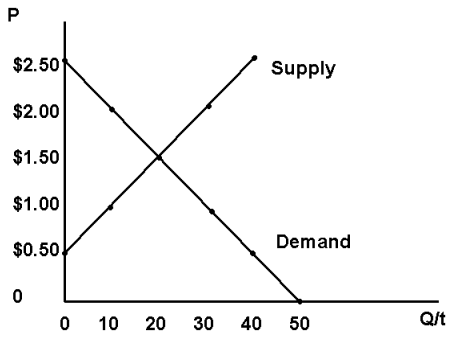
Price	Individual Quantity Demanded	Market Quantity Demanded	One Vendor's Quantity Supplied	Market Quantity Supplied	Shortage (Excess Demand)	Surplus (Excess Supply)
0	5	50,000	0	0	50,000	
$0.50	4	40,000	0	0	40,000	
$1.00	3	30,000	1,000	10,000	20,000	
$1.50	2	20,000	2,000	20,000		
$2.00	1	10,000	3,000	30,000		20,000
$2.50	0	0	4,000	40,000		40,000

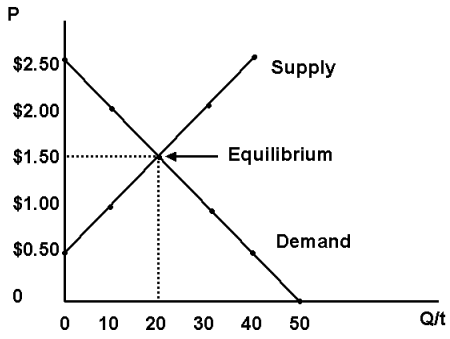
The Supply and Demand Model

Drawing Tip
Draw the demand curve using the data above.



Drawing Tips
1) Draw the supply curve using the data above.
2) Make sure that it crosses at $1.50 and 20.





Drawing Tip
Label the equilibrium.

ALL ABOUT DEMAND

The Law of Demand: the relationship between price and quantity demanded is a negative or inverse one.

Teaching Tip
Offer that the "LAW" is not really a law but an observation that almost always holds. In this way, it is similar to Chemistry's Ideal Gas Law PV=nRT. Just as the ideal gas law works (more or less) most of the time, it is not always precisely true for the non-ideal gases. Demand is not downward sloping for every good, for every person, in every circumstance. Demand by an individual with a broken bone, for immediate medical treatment, is likely vertical. They want their broken bone set.

Why Does the Law of Demand Make Sense?

- **The substitution effect** moves people toward the good that is now cheaper or away from the good that is now more expensive.
- **The real balances effect** occurs when a price increases it decreases your buying power causing you to buy less.
- **The law of diminishing marginal utility** is the amount of additional happiness that you get from an additional unit of consumption falls with each additional unit.

Teaching Tips

1) ***Let students discuss*** *their favorite brand of a product and have them specify what they do when that particular brand experiences a price increase.*
2) *Use an example of food or drink where the first unit of consumption increases happiness a great deal but the fourth, fifth or tenth, increases happiness a trivial amount. Good examples include pizza by the slice, donuts, or onion rings.*
3) *You may, or may not want to acknowledge that this concept requires a notion of cardinal utility that economists do not favor. If you do, you can also encourage them to become majors to learn why the assumption is wrong but the conclusions are not.*
4) ***Let students discuss*** *the "Law" by offering examples from their experience.*

ALL ABOUT SUPPLY

The law of supply is the statement that there is a positive relationship between price and quantity supplied.

Why Does the Law of Supply Make Sense?

- Because of **increasing marginal costs** firms require higher prices to produce more output.
- Because many firms produce more than one good, an increase in the price of good A makes it (at the margin) more profitable so resources are diverted from good B to produce more of good A.

Teaching Tips

1) *You may choose to use the "believe me, it works this way" approach to avoid the whole explanation of Marginal Cost and Marginal Revenue that follows. You can simply say we'll prove it in Chapters 5 and 6.*
2) *If you go forward with the explanation do not try to teach all of Chapters 5 and 6 right here. Just get to the punch line that marginal cost is increasing. Relatively quick example: Farmer has three fields (great, okay, rocky) that require differing levels of water and fertilizer (none, some, a lot). At high prices, all three fields will be used, at modest prices, only the best two, and at low prices, only the "great" one will be planted.*
3) *The second reason focuses on alternative outputs. In order for a corn/soybean farmer to plant corn, the extra cost of doing so has to be worth it (i.e., the price of corn has to be high enough).*

DETERMINANTS OF DEMAND

- Taste
- Income
  - Normal goods
  - Inferior goods
- Price of other goods
  - Complement
  - Substitute
- Population of potential buyers
- Expected price
- Excise taxes
- Subsides

Teaching Tip
Go through each one of the determinants using your best, culturally appropriate examples. I have had classes of mostly international students where the typical "peanut butter and jelly" example for complements just did not work. Ramen works well in a classroom of traditional students as an example of an "inferior" good. When dealing with taxes and subsidies, your examples must focus on those that go to the consumer (as those that go to the supplier will be discussed later).

Table 2.4
Movements in the demand curve: increases in the values of the determinants.

An Increase in	Causes Demand to	Causes the Demand Curve to Move to the
Taste	Increase	Right
Income–normal good	Increase	Right
Income–inferior good	Decrease	Left
Price of other goods–complement	Decrease	Left
Price of other goods–substitute	Increase	Right
Population	Increase	Right
Expected future price	Increase	Right
Excise taxes	Decrease	Left
Subsidies	Increase	Right

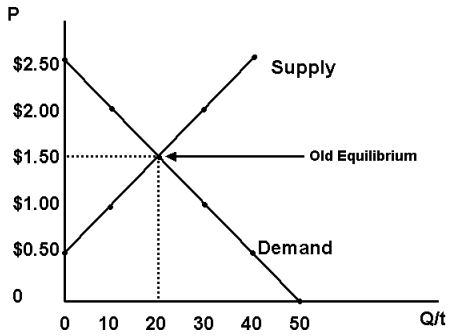
Table 2.5
Movements in the demand curve: decreases in the values of the determinants.

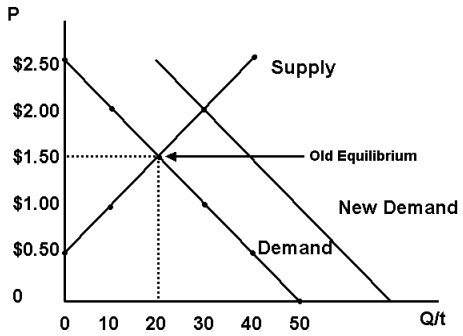
A Decrease in	Causes Demand to	Causes the Demand Curve to Move to the
Taste	Decrease	Left
Income–normal good	Decrease	Left
Income–inferior good	Increase	Right
Price of other goods–complement	Increase	Right
Price of other goods–substitute	Decrease	Left
Population	Decrease	Left
Expected future price	Decrease	Left
Excise taxes	Increase	Right
Subsidies	Decrease	Increase

Teaching Tips
1) *Emphasize that an increase in demand is a movement to the RIGHT and a decrease is a movement to the LEFT. While "Demand moves UP" is consistent with an increase in demand the same will not be true for supply. If you use the UP and DOWN labels, confusion will reign. Stick with RIGHT and LEFT.*
2) *The text refers to the figure number. Note that for the students.*

The Effect of an Increase in Demand

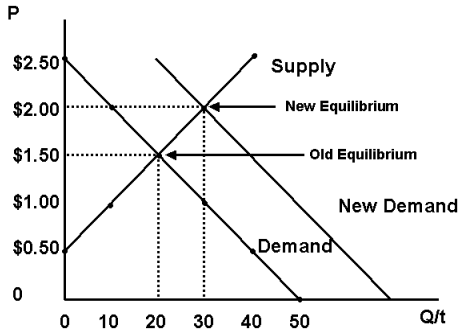
Drawing Tip
Draw a supply and demand curve using the same data as before.





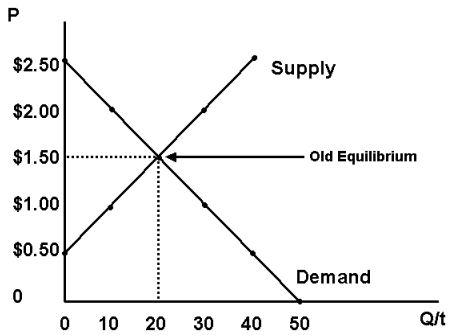
Drawing Tip
Add a new demand curve further to the right.

Teaching Tips
1) *Pick an example from the table.*
2) *Pick a variable and ask students to offer whether an increase or a decrease in that variable will move demand to the right.*

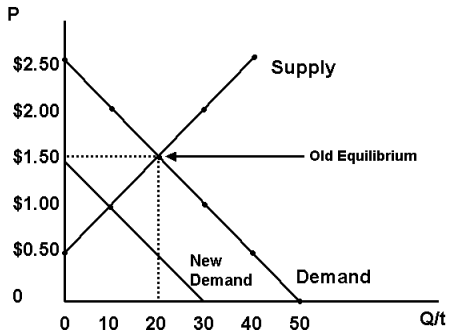


Drawing Tip
Show the new equilibrium.

The Effect of a Decrease in Demand

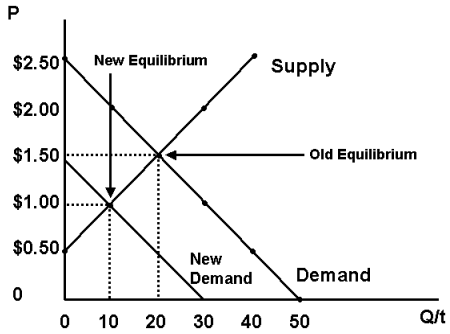


Drawing Tip
Draw a supply and demand curve using the same data as before.



Drawing Tip
Add a new demand curve further to the left.

Teaching Tips
1) *Pick an example from the table.*
2) *Pick a variable and ask students to offer whether an increase or a decrease in that variable will move demand to the left.*



Drawing Tip
Show the new equilibrium.

DETERMINANTS OF SUPPLY

- Price of inputs
- Technology
- Price of other potential output
- Number of sellers
- Expected future price
- Excise taxes
- Subsidies

Table 2.6
Movements in the supply curve: increases in the values of the determinants.

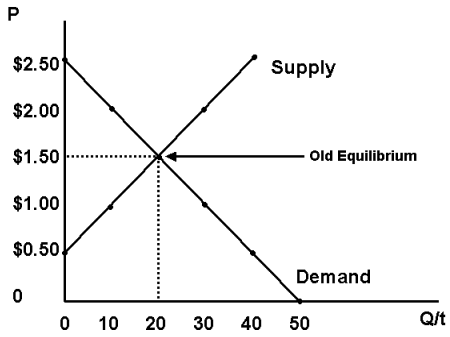
An Increase in	Causes Supply to	Causes the Supply Curve to Move to the
Price of inputs	Decrease	Left
Technology	Increase	Right
Price of other potential outputs	Decrease	Left
Number of sellers	Increase	Right
Expected future price	Decrease	Left
Excise tax	Decrease	Left
Subsidies	Increase	Right

Table 2.7
Movements in the supply curve: decreases in the values of the determinants.

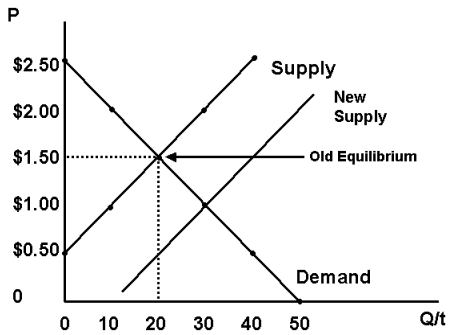
A Decrease in	Causes Supply to	Causes the Supply Curve to Move to the
Price of inputs	Increase	Right
Technology	Decrease	Left
Price of other potential outputs	Increase	Right
Number of sellers	Decrease	Left
Expected future price	Increase	Right
Excise tax	Increase	Right
Subsidies	Decrease	Left

Teaching Tip
Have students notice that, just like demand, an increase in supply is a movement to the right and a decrease is a movement to the left.

An Increase in Supply

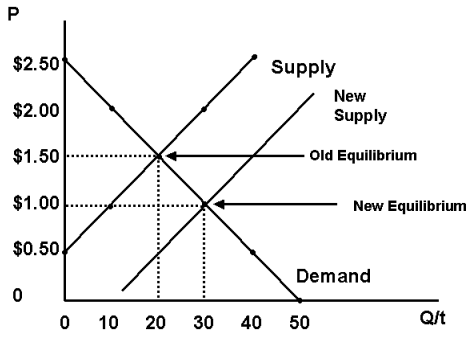


Drawing Tip
Draw a supply and demand curve using the same data as before.



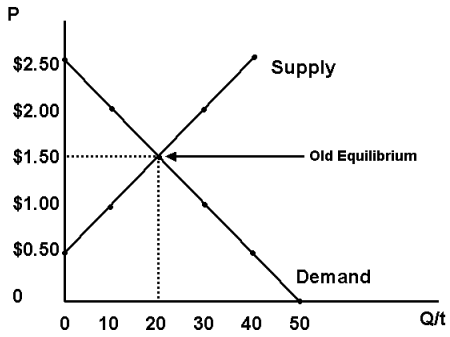
Drawing Tip
Add a new supply curve further to the right.

Teaching Tips
1) Pick an example from the table.
2) Pick a variable and ask students to offer whether an increase or a decrease in that variable will move supply to the right.

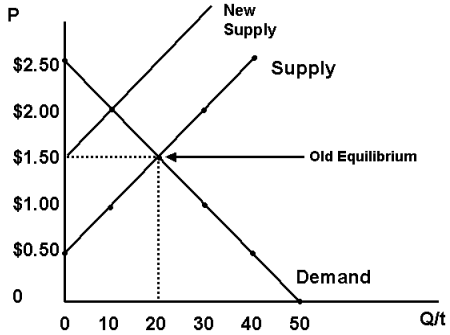


Drawing Tip
Show the new equilibrium.

A Decrease in Supply

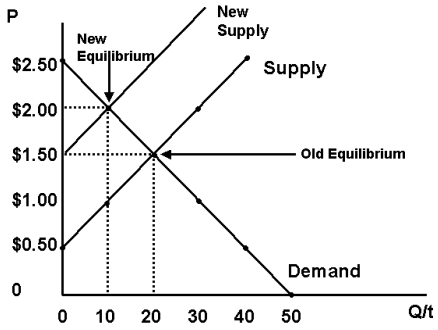


Drawing Tip
Draw a supply and demand curve using the same data as before.



Drawing Tip
Add a new supply curve further to the left.

Teaching Tips
1) Pick an example from the table.
2) *Pick a variable and ask students to offer whether an increase or a decrease in that variable will move supply to the left.*



Drawing Tip
Show the new equilibrium.

THE EFFECT OF CHANGES IN PRICE EXPECTATIONS ON THE SUPPLY AND DEMAND MODEL

- An increase in the expected future price of a good will increase present demand and decrease present supply.
  - The net result is an increase in present price but an uncertain impact on present quantity.
- A decrease in the expected future price of a good will decrease present demand and increase present supply.
  - The net result is a decrease in present price but an uncertain impact on present quantity.

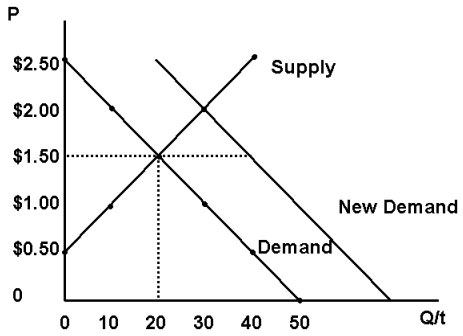
Teaching Tips

1) *Have the students draw the cases for themselves. This is an excellent opportunity to talk about why economists often give ambiguous answers to questions. Here, the ambiguity is about quantity sold.*
2) *Ask the question, "If you expect an increase in the price of gasoline next week, will more gasoline get sold today? Less?"*

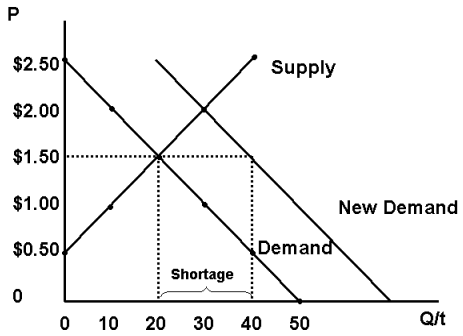
KICK IT UP A NOTCH: WHY THE NEW EQUILIBRIUM?

If there is a change in supply or demand then, without a change in the price of the good, there will be a shortage or a surplus.

A Shortage Resulting from an Increase in Demand (If the price does not increase)



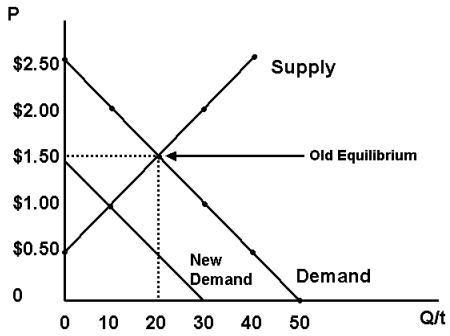
Drawing Tips
1) *Draw a supply and demand diagram, labeling the equilibrium price-quantity combination.*
2) *Increase demand and extend the price over to the new demand curve.*



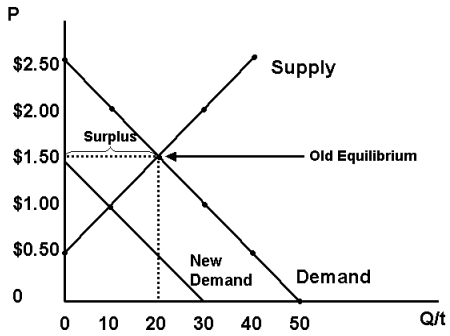
Drawing Tips
1) *Come down from the point where the price line hits the new demand curve.*
2) *Note the shortage.*

Teaching Tip
Note the new quantity demanded is 40 and the quantity supplied is only 20.

A Surplus Resulting from a Decrease in Demand (If the price does not fall)



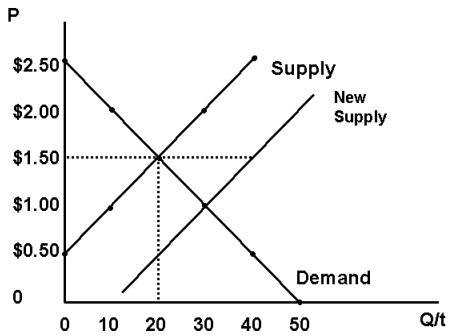
Drawing Tips
1) *Draw a supply and demand diagram, labeling the equilibrium price quantity combination.*
2) *Decrease demand.*



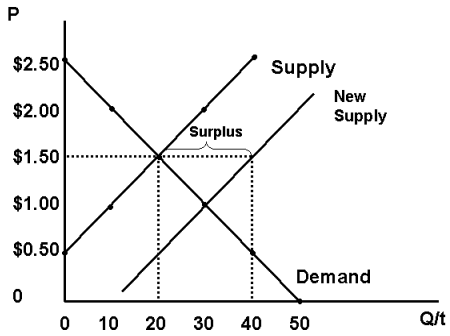
Drawing Tip
Note the surplus.

Teaching Tip
Note the new quantity supplied is 20 and the quantity demanded is 0.

A Surplus Resulting from an Increase in Supply (If the price does not fall)



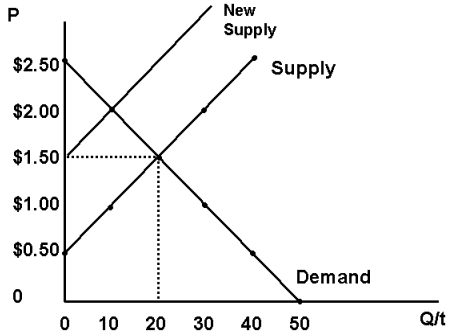
Drawing Tips
1) *Draw a supply and demand diagram, labeling the equilibrium price-quantity combination.*
2) *Increase supply and extend the price over to the new supply curve.*



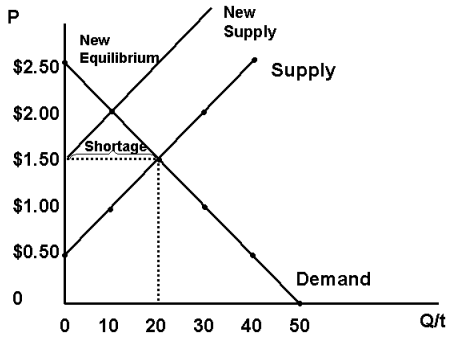
Drawing Tips
1) *Come down from the point where the price line hits the new supply curve.*
2) *Note the surplus.*

Teaching Tip
Note the new quantity supplied is 40 and the quantity demanded is only 20.

A Shortage Resulting from a Decrease in Supply (If the price does not rise)

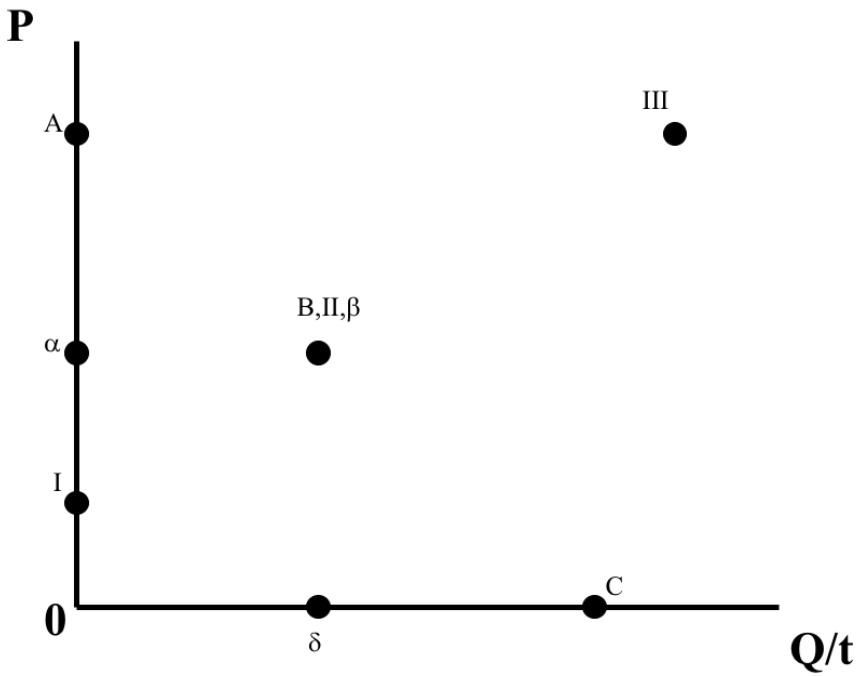


Drawing Tips
1) *Draw a supply and demand diagram, labeling the equilibrium price-quantity combination.*
2) *Decrease supply.*



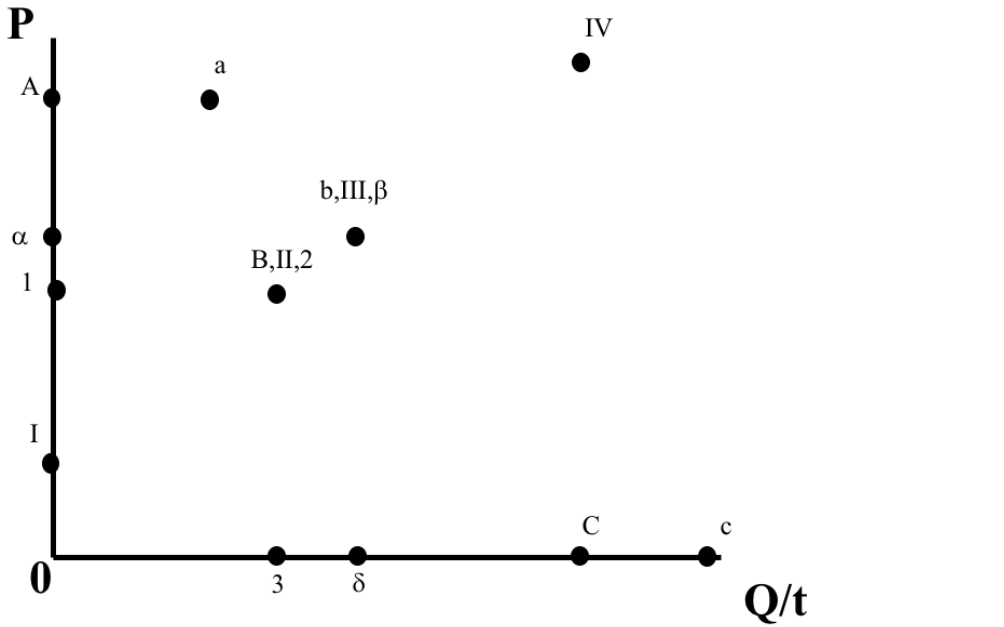
Drawing Tip
Note the shortage.

Teaching Tip
Note the new quantity supplied is 0 and the quantity demanded is 20.



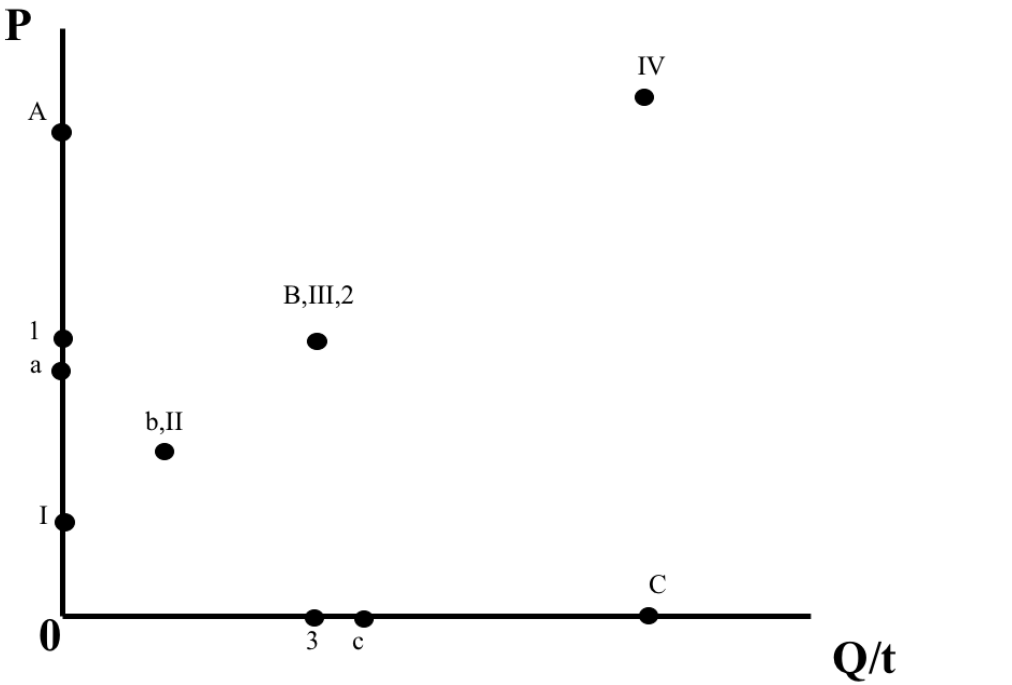
Connect A,B,C to get the demand curve; Connect I,II,III to get the supply curve; Connect α,β,δ.

α Represents the equilibrium price; δ represents the equilibrium quantity; B,II,β represents the equilibrium point where supply and demand are equal.



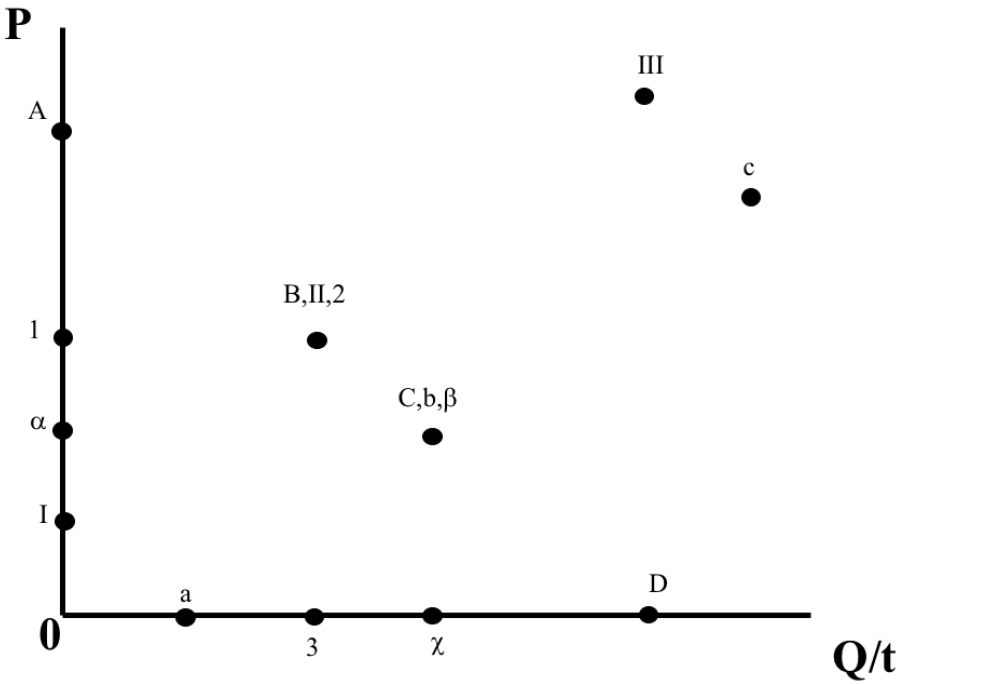
Connect A,B,C to get the original demand curve; Connect a,b,c to get the new demand curve; Connect I-IV to get the supply curve; Connect α,β,δ; Connect 1,2,3.

1 represents the original equilibrium price; α represents the new equilibrium price; 3 represents the original equilibrium quantity; δ represents the new equilibrium quantity; B,II,2 represents the original equilibrium point where supply equals demand; b,III,β represents the new equilibrium point where supply equals demand.



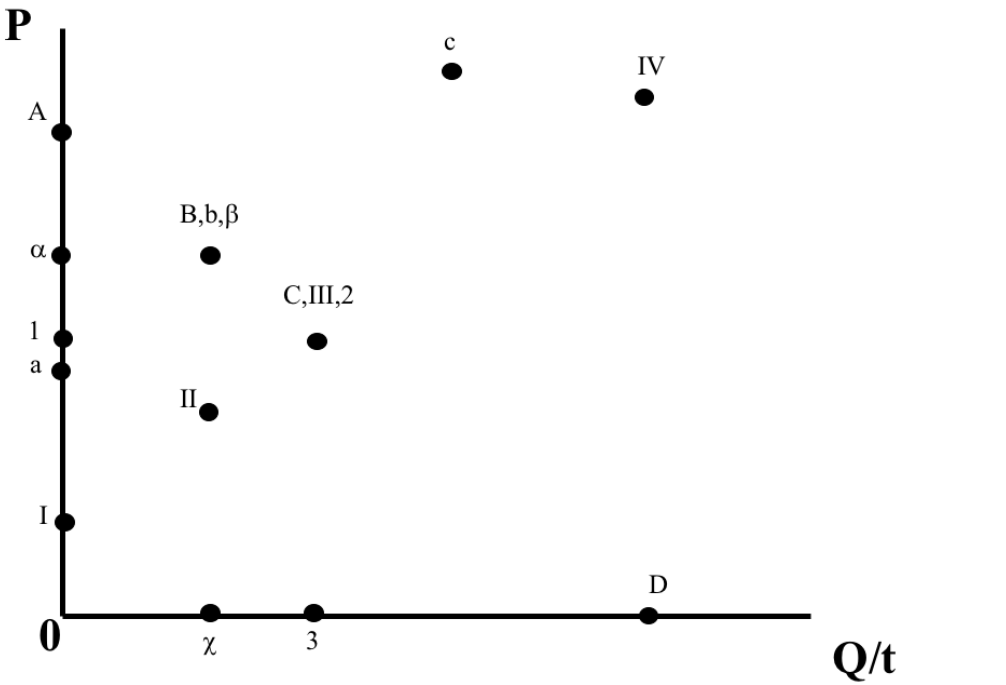
Connect A,B,C to get the original demand curve; Connect a,b,c to get the new demand curve; Connect I-IV to get the supply curve; Connect 1,2,3.

1 represents the original equilibrium price; a represents the new equilibrium price; 3 represents the original equilibrium quantity; c represents the new equilibrium quantity; B,III,2 represents the original equilibrium point where demand equals supply; b,II represents the new equilibrium point where demand equals supply.



Connect A,B,C,D to get the demand curve; Connect I,II,III to get the original supply curve; Connect a,b,c to get the new supply curve; Connect 1,2,3; Connect α,β,χ.

1 represents the original equilibrium price; α represents the new equilibrium price; 3 represents the original equilibrium quantity; χ represents the new equilibrium quantity; B,II,2 represents the original equilibrium point where demand equals supply; C,b,β represents the new equilibrium point where demand equals supply.



Connect A,B,C,D to get the demand curve; Connect I,II,III,IV to get the original supply curve; Connect a,b,c to get the new supply curve; Connect 1,2,3; Connect α,β,χ.

1 represents the original equilibrium price; α represents the new equilibrium price; 3 represents the original equilibrium quantity; χ represents the new equilibrium quantity; C,III,2 represents the original equilibrium point where demand equals supply; B,b,β represents the new equilibrium point where demand equals supply.

Chapter 2
Supply and Demand

End of Chapter Questions

Quiz Yourself

1. The supply and demand model examines how prices and quantities are determined
   a) in markets.
   b) by governments.
   c) by consumers only.
   d) by producers only.

Explanation: The supply and demand model assumes that there is a market where buyers and sellers get together to trade.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 01 Easy
Gradeable: automatic
Learning Objective: 02-02
Topic: Supply and Demand Defined

2. A change in the price of lumber will impact
   a) the demand for lumber.
   b) the supply of lumber.
   c) the quantity demanded and quantity supplied of lumber but neither the supply nor the demand for lumber.
   d) both the supply and demand for lumber.

Explanation: Demand shows how much consumers want to buy at all prices. Demand is a relationship, whereas quantity demanded is a particular point in that relationship. Quantity supplied is how much firms are willing and able to sell at a particular price during a particular period of time, whereas supply alone shows how much firms want to sell at all prices.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 01 Easy
Gradeable: automatic
Learning Objective: 02-01
Topic: Supply and Demand Defined

3. Choose the appropriate Latin phrase. When an economics student draws a supply and demand diagram to model an increase in income, she is assuming this change happens
   a. semper fidelis.
   b. ceteris paribus.
   c. ipso facto.
   d. defacto.

Explanation: A Latin phrase most commonly used by economists is ceteris paribus, which means "other things equal." This phrase, when added to a definition or a conclusion, means that though there are many other factors that could affect a phenomenon in real life, this is focusing on the impact of one while holding those other factors constant.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 01 Easy
Gradeable: automatic
Learning Objective: 02-02
Topic: Supply and Demand Defined

4. The point where supply and demand cross is called equilibrium because
   a) nothing will cause it to move (even if demand changes).
   b) nothing will cause it to move (even if supply changes).
   c) once the price settles there, unless supply or demand changes, it will not move.
   d) price will move away from it quickly.

Explanation: An equilibrium occurs when there is nothing that will cause price to move unless supply or demand changes.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 01 Easy
Gradeable: automatic
Learning Objective: 02-02
Topic: Supply and Demand Defined

5. If the supply and demand curves cross at a price of $5, at any price above that, there will be
   a. an equilibrium.
   b. a surplus.
   c. a shortage.
   d. a crisis.

Explanation: At any price above the equilibrium price, where demand and supply intersect, there will be a surplus of the good or service.

AACSB: Knowledge Application
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 01 Easy
Gradeable: automatic
Learning Objective: 02-01
Topic: The Supply and Demand Model

6. If the supply and demand curves cross at a quantity of 10, then the price necessary to get firms to sell more than that will have to be _____ equilibrium.
   a. above
   b. at
   c. below
   d. within 10 percent either way of

Explanation: Since the supply curve is upsloping, firms will sell more as the price rises. So in order for firms to sell more than a quantity of 100, the price would have to be above the equilibrium price.

AACSB: Knowledge Application
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 02 Medium
Gradeable: automatic
Learning Objective: 02-01
Topic: The Supply and Demand Model

7. Which of the following will impact both supply and demand?
   a. A change in price
   b. A change in quantity
   c. A change in expected future price
   d. A change in income

Explanation: Changes in expected future prices influence the choices of both consumers and producers.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 01 Easy
Gradeable: automatic
Learning Objective: 02-03
Topic: The Effect of Changes in Price Expectations on the Supply and Demand Model

8. An increase in the income of consumers will cause the
   a. supply of all goods to rise.
   b. demand for all goods to rise.
   c. supply of all goods to fall.
   d. the demand for some goods to rise and for others to fall.

Explanation: A rise in income can either increase demand if the good is a normal good, or decrease demand if the good is an inferior good.

AACSB: Knowledge Application
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 01 Easy
Gradeable: automatic
Learning Objective: 02-02
Topic: Determinants of Demand

9. Without an increase in price, an increase in demand will lead to
   a. a shortage.
   b. a surplus.
   c. socialism.
   d. equilibrium.

Explanation: If the price cannot increase when demand increases, there will be a shortage of the good.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 01 Easy
Gradeable: automatic
Learning Objective: 02-01
Topic: The Supply and Demand Model

10. An important reason for the downward-sloping nature of the demand curve is that
    a) consumers rarely make substitutions between goods when the price of one changes.
    b) consumers frequently make substitutions between goods when the price of one changes.
    c) consumers have unlimited resources.
    d) the consumption of most goods comes with increasing marginal utility.

Explanation: When the price of a good rises, people look for substitutes.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 02 Medium
Gradeable: automatic
Learning Objective: 02-03
Topic: All about Demand

11. The underlying reason for the upward-sloping nature of the supply curve is that
    a. the production of most goods comes with increasing marginal benefits.
    b. the production of most goods comes with increasing marginal costs.
    c. the consumption of most goods comes with decreasing marginal utility.
    d. the consumption of most goods comes with increasing marginal utility.

Explanation: As more of a good is produced, the added, or marginal cost, increases. The firm needs to have a higher price to produce more. Therefore, the supply curve is up-sloping.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 02 Medium
Gradeable: automatic
Learning Objective: 02-04
Topic: All about Supply

12. Suppose Florida vegetable farmers can plant either green peppers or tomatoes on their land with equal profitability. Now imagine that there is an increase in the price of green peppers, which of the following will result?
    a. A movement to the right in the demand for tomatoes
    b. A movement to the left in the demand for tomatoes
    c. A movement to the right in the supply of tomatoes
    d. **A movement to the left in the supply of tomatoes**

Explanation: Producers are on the supply side of the market. If soybeans are more profitable, farmers will switch from corn to soybeans and the supply of corn will shift to the left (decrease).

AACSB: Knowledge Application
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 02 Medium
Gradeable: automatic
Learning Objective: 02-04
Topic: Determinants of Supply

13. Part of the Patient Protection and Affordable Care Act involved a tax on indoor tanning that tanning salons are required to collect from tanners and send to the federal government. Which of the following would be the predicted result?
    a. A movement to the right in the demand for tanning
    b. A movement to the left in the demand for tanning
    c. A movement to the right in the supply of tanning
    d. A movement to the left in the supply of tanning

Explanation: Since the tax is collected from tanners, it would affect the demand side of the market. Tanning is now more costly, so demand shifts to the left (decreases).

AACSB: Knowledge Application
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 02 Medium
Gradeable: automatic
Learning Objective: 02-04
Topic: Determinants of Demand

14. As the baby boom generation (born between 1946 and 1964) ages, which of the following is a likely outcome?
    a. A movement to the left in the demand for nursing home beds
    b. A movement to the left in the supply of nursing home beds
    c. A movement to the right in the supply of nursing home beds
    d. A movement to the left in the demand for nursing home beds

Explanation: As the baby boom generation (born between 1946 and 1964) ages, these older people will need more nursing care, hence more nursing home beds. Demand increases, or shifts to the right.

AACSB: Knowledge Application
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 02 Medium
Gradeable: automatic
Learning Objective: 02-04
Topic: All about Demand

Short Answer Questions

1. Use your own demand for pizza to illustrate the notion of diminishing marginal utility. Explain why that concept means your demand for pizza-by-the-slice is downward sloping.

   If you purchase pizza by the slice, the first slice satisfies your desire for that familiar taste and it goes a long way toward satisfying your hunger. If you had to, it could be your only slice until your next meal. If it was really expensive, you might decide that one was enough. At a very high price, you would buy only one. At a lower price, you might be interested in the second slice because it would increase your happiness. It might not increase your happiness by enough to overcome a high price, but it would increase your happiness enough to overcome a moderate price. The same effect would occur if pizza was cheap. You might purchase a third slice because it would be worth a low price (when it wasn't worth the high or moderate price).

2. Suppose you have been given money by your friends to get beverages for a party. Use your demand for those beverages to illustrate why the concept of the "real-balances effect" will mean your demand is downward sloping.

   Suppose you collect $100 from your friends. If you take the money to the store and find that the price of beverages is $20 per case, you can only buy five cases. If the price is $10 per case, you can buy 10 cases.

3. If there is alteration change in the price of a complement to a good, why is that a change in *demand* when alteration change in the price of the good itself is a change in the *quantity demanded*?

   Take the American classic: a peanut butter and jelly sandwich. The peanut butter and the jelly are complements. They are purchased separately but used together. A change in the price of peanut butter will impact where we are ON the demand curve for peanut butter. That will then determine how much jelly is wanted at all possible prices, which means that it impacts the entire demand curve for jelly.

4. If there is alteration change in the price of an input used to produce a good, why is that a change in *supply* when alteration change in the price of the good itself is a change in the *quantity supplied*?

   Crude oil is the dominant input to the production of gasoline. If the price of crude oil falls, that causes producers to turn off certain wells or delay drilling the next well. That means there is a shift from one point on a supply curve for crude oil to another. Once that takes place, it changes the supply curve for gasoline.

Think about This

Using simple supply and demand analysis, think about the system of allocating human kidneys. The law that forbids the sale of human organs, but allows their voluntary donation, causes a bigger shortage of kidneys than there otherwise would be. Does this fact alter your view of the law forbidding the sale of human organs? How about blood?

The fact that we consider it immoral to sell or buy organs motivates us to ban the practice. The primary reason are obvious: allowing people to sell a kidney would likely cause them to threaten their own lives in order to afford goods and services for their families, and the decision to give up a kidney is permanent. However, prohibiting the sale of organs means that there are fewer kidneys available than there are people who need them. The logic is different for blood. A healthy person can donate blood regularly. There are blood types that are particularly scarce (A/B−). In situations where that type is needed, having the ability to compensate the donor might eliminate the shortage of that blood type.

Talk about This

Are markets always right? List some markets that you think get the production or price of a good wrong. What do these goods have in common?

The market is usually right for typical goods and services. It works for cars and car washes. However, there are market failures that usually boil down to harm or good (externalities) that is generated by the consumption or production of these goods that go to people other than the consumer or producer. For instance, markets fail when there is pollution. Markets don't work for elementary education or national defense that yields societal benefits. Markets also don't work when they exploit a knowledge gap between a buyer and a seller. For instance, you may be able to convince a child to buy or sell something when you couldn't convince an adult.