

CHAPTER 4

The Market Forces of Supply and Demand

PRINCIPLES OF
Economics
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Premium PowerPoint Slides
by Ron Cronovich

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In this chapter, look for the answers to these questions:

- § What factors affect buyers' demand for goods?
- § What factors affect sellers' supply of goods?
- § How do supply and demand determine the price of a good and the quantity sold?
- § How do changes in the factors that affect demand or supply affect the market price and quantity of a good?
- § How do markets allocate resources?

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Markets and Competition

- § A **market** is
- § A **competitive market** is one with many buyers and sellers, each has
- § In a **perfectly competitive** market:
 - §
 - §
- § In this chapter, we assume markets are perfectly competitive.

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Demand

§ The **quantity demanded** of any good

§ **Law of demand:** the claim that

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The Demand Schedule

§ **Demand schedule:**

Price of lattes	Quantity of lattes demanded
\$0.00	16
1.00	14
2.00	12
3.00	10
4.00	8
5.00	6
6.00	4

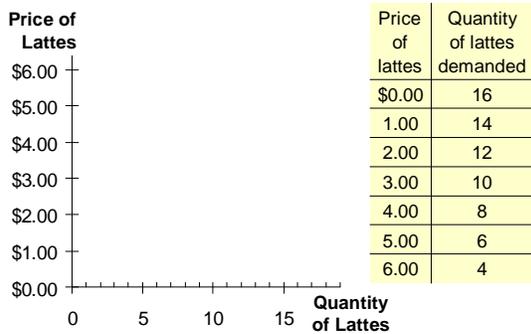
§ **Example:**
Helen's demand for lattes.

§ Notice that Helen's preferences obey the Law of Demand.

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Helen's Demand Schedule & Curve



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Market Demand versus Individual Demand

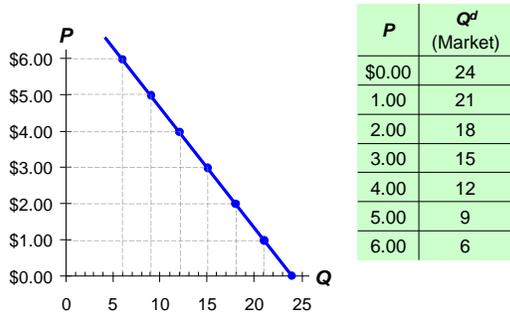
§ The quantity demanded in the market

§ Suppose Helen and Ken are the only two buyers in the Latte market. (Q^d = quantity demanded)

Price	Helen's Q^d	Ken's Q^d	Market Q^d
\$0.00	16	8	
1.00	14	7	
2.00	12	6	
3.00	10	5	
4.00	8	4	
5.00	6	3	
6.00	4	2	

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The Market Demand Curve for Lattes



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Demand Curve Shifters

§ The demand curve shows how price affects quantity demanded, *other things being equal*.

§ These "other things" are non-price determinants of demand (*i.e.*,

§ Changes in them shift the **D** curve...

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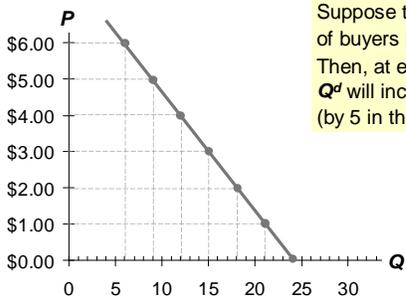
Demand Curve Shifters: # of Buyers

§ Increase in # of buyers

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Demand Curve Shifters: # of Buyers



Suppose the number of buyers increases. Then, at each P , Q^d will increase (by 5 in this example).

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Demand Curve Shifters: Income

§ Demand for a **normal good** is _____ related to income.

§ Increase in income causes

(Demand for an **inferior good** is _____ related to income. An increase in income shifts **D** curves for inferior goods to the _____.)

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Demand Curve Shifters: Prices of Related Goods

§ Two goods are **substitutes** if

§ Example:

§ Other examples:

Demand Curve Shifters: Prices of Related Goods

§ Two goods are **complements** if

§ Example:

§ Other examples:

Demand Curve Shifters: Tastes

§ Anything that causes a shift in tastes *toward* a good

§ Example:

The Atkins diet became popular in the '90s, caused an increase in demand for eggs, shifted the egg demand curve to the right.

Demand Curve Shifters: Expectations

§ Expectations affect consumers' buying decisions.

§ Examples:

ACTIVE LEARNING 1

Demand Curve

Draw a demand curve for music downloads. What happens to it in each of the following scenarios? Why?

- A. The price of iPods falls
- B. The price of music downloads falls
- C. The price of CDs falls

ACTIVE LEARNING 1

A. Price of iPods falls

Price of music downloads

Quantity of music downloads

ACTIVE LEARNING 1
B. Price of music downloads falls

Price of music downloads

Quantity of music downloads

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ACTIVE LEARNING 1
C. Price of CDs falls

Price of music downloads

Quantity of music downloads

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Supply

§ The **quantity supplied** of any good

§ **Law of supply:**

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The Supply Schedule

§ **Supply schedule:**

Price of lattes	Quantity of lattes supplied
\$0.00	0
1.00	3
2.00	6
3.00	9
4.00	12
5.00	15
6.00	18

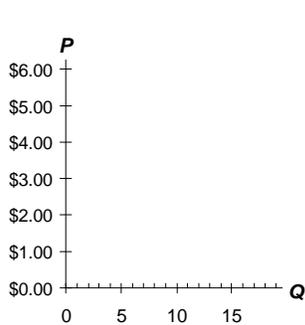
§ Example:
Starbucks' supply of lattes.

§ Notice that Starbucks' supply schedule obeys the Law of Supply.

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Starbucks' Supply Schedule & Curve



Price of lattes	Quantity of lattes supplied
\$0.00	0
1.00	3
2.00	6
3.00	9
4.00	12
5.00	15
6.00	18

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Market Supply versus Individual Supply

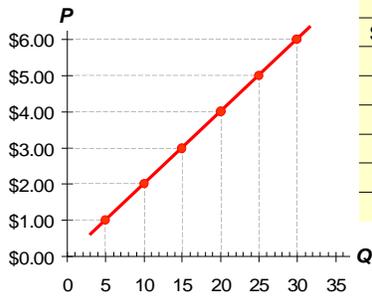
§ The quantity supplied in the market is

§ Suppose Starbucks and Jitters are the only two sellers in this market. (Q^s = quantity supplied)

Price	Starbucks		Jitters		Market Q^s
\$0.00	0	+	0	=	0
1.00	3	+	2	=	5
2.00	6	+	4	=	10
3.00	9	+	6	=	15
4.00	12	+	8	=	20
5.00	15	+	10	=	25
6.00	18	+	12	=	30

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The Market Supply Curve



P	Q ^s (Market)
\$0.00	0
1.00	5
2.00	10
3.00	15
4.00	20
5.00	25
6.00	30

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Supply Curve Shifters

§ The supply curve shows how price affects quantity supplied, *other things being equal*.

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Supply Curve Shifters: Input Prices

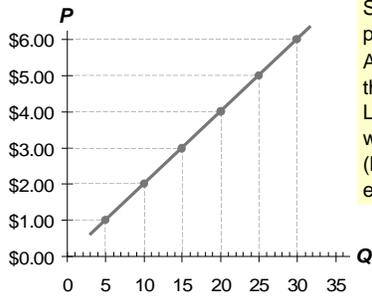
§ Examples of input prices:

§ A fall in input prices

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Supply Curve Shifters: Input Prices



Suppose the price of milk falls. At each price, the quantity of Lattes supplied will increase (by 5 in this example).

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Supply Curve Shifters: Technology

§ Technology determines how much inputs are required to produce a unit of output.

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Supply Curve Shifters: # of Sellers

§ An increase in the number of sellers

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Supply Curve Shifters: Expectations

Example:

- § Events in the Middle East lead to expectations of higher oil prices.
- § In response,

§

In general, sellers may adjust supply when their expectations of future prices change.
(* If good not perishable)

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ACTIVE LEARNING 2

Supply Curve

Draw a supply curve for tax return preparation software. What happens to it in each of the following scenarios?

- A. Retailers cut the price of the software.
- B. A technological advance allows the software to be produced at lower cost.
- C. Professional tax return preparers raise the price of the services they provide.

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ACTIVE LEARNING 2

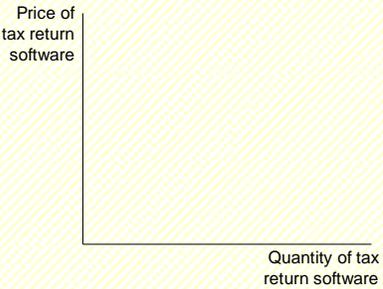
A. Fall in price of tax return software

Price of tax return software

Quantity of tax return software

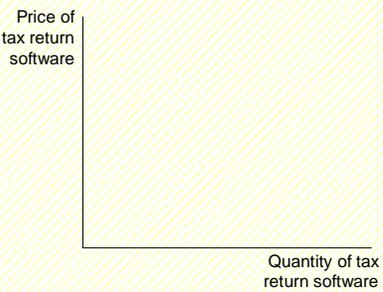
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ACTIVE LEARNING 2
B. Fall in cost of producing the software



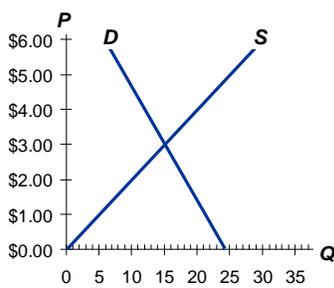
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ACTIVE LEARNING 3
C. Professional preparers raise their price



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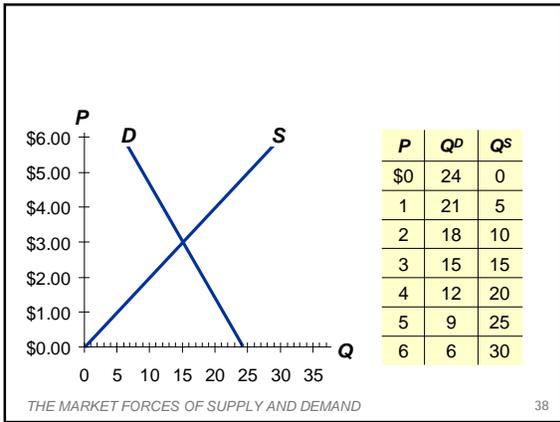
Supply and Demand Together

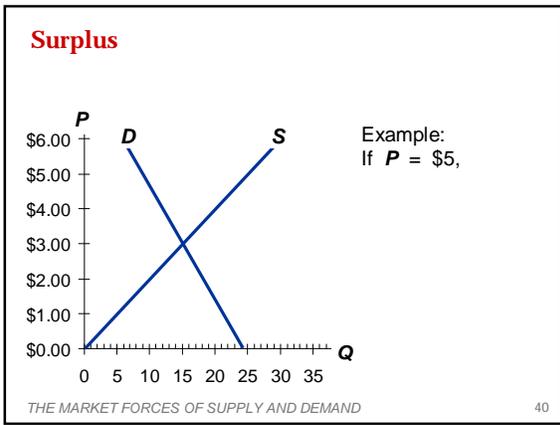


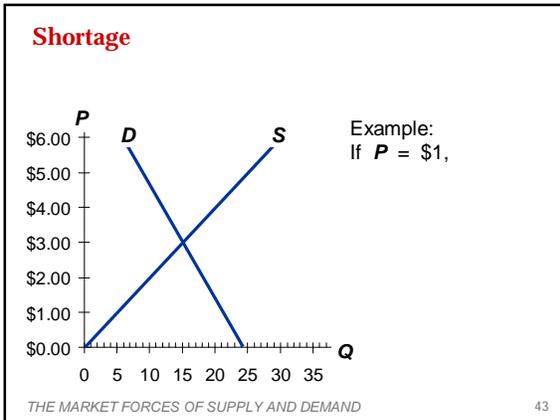
Equilibrium:

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Three Steps to Analyzing Changes in Eq'm

To determine the effects of any event,

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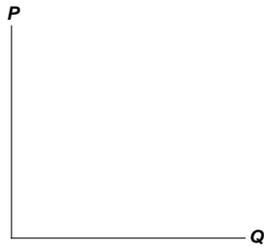
EXAMPLE 1: A Shift in Demand

EVENT TO BE ANALYZED:
Increase in price of gas.

STEP 1:

STEP 2:

STEP 3:



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Terms for Shift vs. Movement Along Curve

§ **Change in supply:**
occurs when a non-price determinant of supply changes (like technology or costs)

§ **Change in the quantity supplied:**

occurs when

§ **Change in demand:**

occurs when

§ **Change in the quantity demanded:**

a movement along a fixed *D* curve
occurs when

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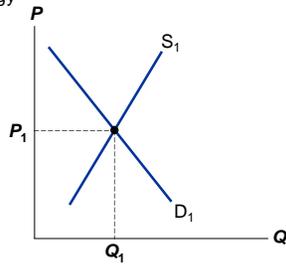
EXAMPLE 2: A Shift in Supply

EVENT: New technology reduces cost of producing hybrid cars.

STEP 1:

STEP 2:

STEP 3:



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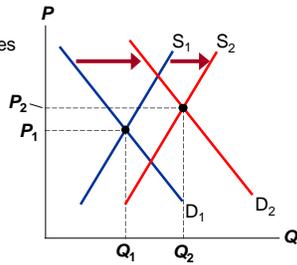
EXAMPLE 3: A Shift in Both Supply and Demand

EVENTS:
price of gas rises AND
new technology reduces
production costs

STEP 1:
Both curves shift.

STEP 2:
Both shift to the right.

STEP 3:
Q rises, but



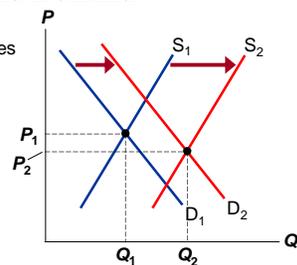
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EXAMPLE 3: A Shift in Both Supply and Demand

EVENTS:
price of gas rises AND
new technology reduces
production costs

STEP 3, cont.



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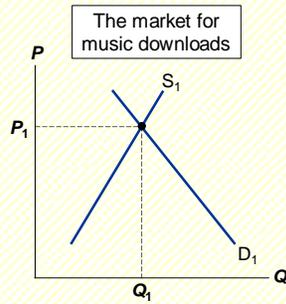
ACTIVE LEARNING 3
Shifts in supply and demand

Use the three-step method to analyze the effects of each event on the equilibrium price and quantity of music downloads.

- Event A: A fall in the price of CDs
- Event B: Sellers of music downloads negotiate a reduction in the royalties they must pay for each song they sell.
- Event C: Events A and B both occur.

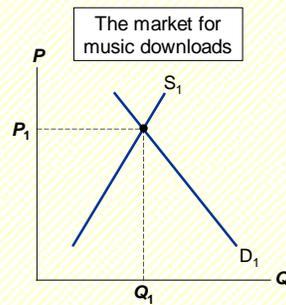
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ACTIVE LEARNING 3
A. Fall in price of CDs



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ACTIVE LEARNING 3
B. Fall in cost of royalties



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ACTIVE LEARNING 3

C. Fall in price of CDs and fall in cost of royalties

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CONCLUSION:

How Prices Allocate Resources

§ One of the Ten Principles from Chapter 1:

Markets are usually a good way to organize economic activity.

§ In market economies,

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