# Econ 200
# Module 2
# Lecture 2

UNIVERSITY of WASHINGTON

# Outline

1. Gains from Trade and Production Decisions
2. Markets and Demand Curves
3. Changes in Demand

Readings: Chapter 2.4, Chapter 3.1-3.3

# Class Administration

## Weekly class schedule


| | | |
|---|---|---|
| 01 | Sunday | New module opens for the week (if applicable). |
| 02 | Monday | Go to Melissa's office hours or CLUE for help with homework.<br>Homework due at 11:59 pm. |
| 03 | Tuesday | Complete SmartBook by 10am.<br>Attend lecture or watch livestream.<br>Can begin new homework assignment. |
| 04 | Thursday | Complete SmartBook by 10 am.<br>Attend lecture or watch livestream. |
| 05 | Friday | Watch recorded lecture videos, if necessary.<br>Attend section with TA for more practice. |

# Who produces which goods and why?

- People around the globe coordinate production activities to sell to consumers what they want.
- The global production is a natural outcome of people everywhere acting in their own self-interest to improve their own lives.
- Economists call this coordination mechanism the invisible hand.

# Absolute and Comparative Advantage

- Can view the PPF as the key trade-offs faced by one economy.
- If there is no trade between economies, then what a country produces is what it consumes.
- Using PPFs, we can understand how countries decide what to produce.

# Absolute and Comparative Advantage

Suppose that an American worker can produce 50 shirts or 200 bushels of wheat per day. A Bangladeshi worker can produce only 25 shirts or 50 bushels of wheat.

| | **Wheat (bushels/worker/day)** | **T-shirts (bushels/worker/day)** |
|---|---|---|
| United States | 200 | 50 |
| Bangladesh | 50 | 25 |

The U.S. has an absolute advantage in shirt production since a U.S. worker can produce more shirts than a Bangladeshi worker.

The U.S. has an absolute advantage in wheat production since a U.S. worker can produce more wheat than a Bangladeshi worker.

**But absolute advantage does not reflect the tradeoffs inherent in production and so is not a good guide for which countries can produce which goods most efficiently.**

# Absolute and Comparative Advantage

To understand how each country decides which good to produce when they interact, the opportunity costs are calculated:

U.S.: 1 shirt costs 4 bushels of wheat.

Bangladesh: 1 shirt costs 2 bushels of wheat.

Using the reciprocal of the above opportunity costs:

U.S.: 1 bushel of wheat costs 1/4 shirt.

Bangladesh: 1 bushel of wheat costs 1/2 shirt.

# Absolute and Comparative Advantage

A country has a comparative advantage in a good if it can produce it at a lower opportunity cost than other countries.

U.S. has a comparative advantage in wheat production over Bangladesh.

Bangladesh has a comparative advantage in shirt production over the U.S.

No country has a comparative advantage in everything, and each country has a comparative advantage in producing something.

# Why specialize?

Suppose the US has 150 M. workers and Bangladesh has 80 M.

In isolation, each country produces and consumes on its own.

U.S. produces 1 B. shirts and 26 B. bushels of wheat.

Bangladesh produces 0.5 B. shirts and 3 B. bushels of wheat.

| | **Country** | **Wheat** (billions of bushels) | **Tshirts** (billions) |
|---|---|---|---|
| Without specialization | United States | 26 | 1 |
| | Bangladesh | 3 | 0.5 |
| | **Total** | **29** | **1.5** |
| With specialization | United States | 30 | 0 |
| | Bangladesh | 0 | 2 |
| | **Total** | **30** | **2** |

# Why specialize?

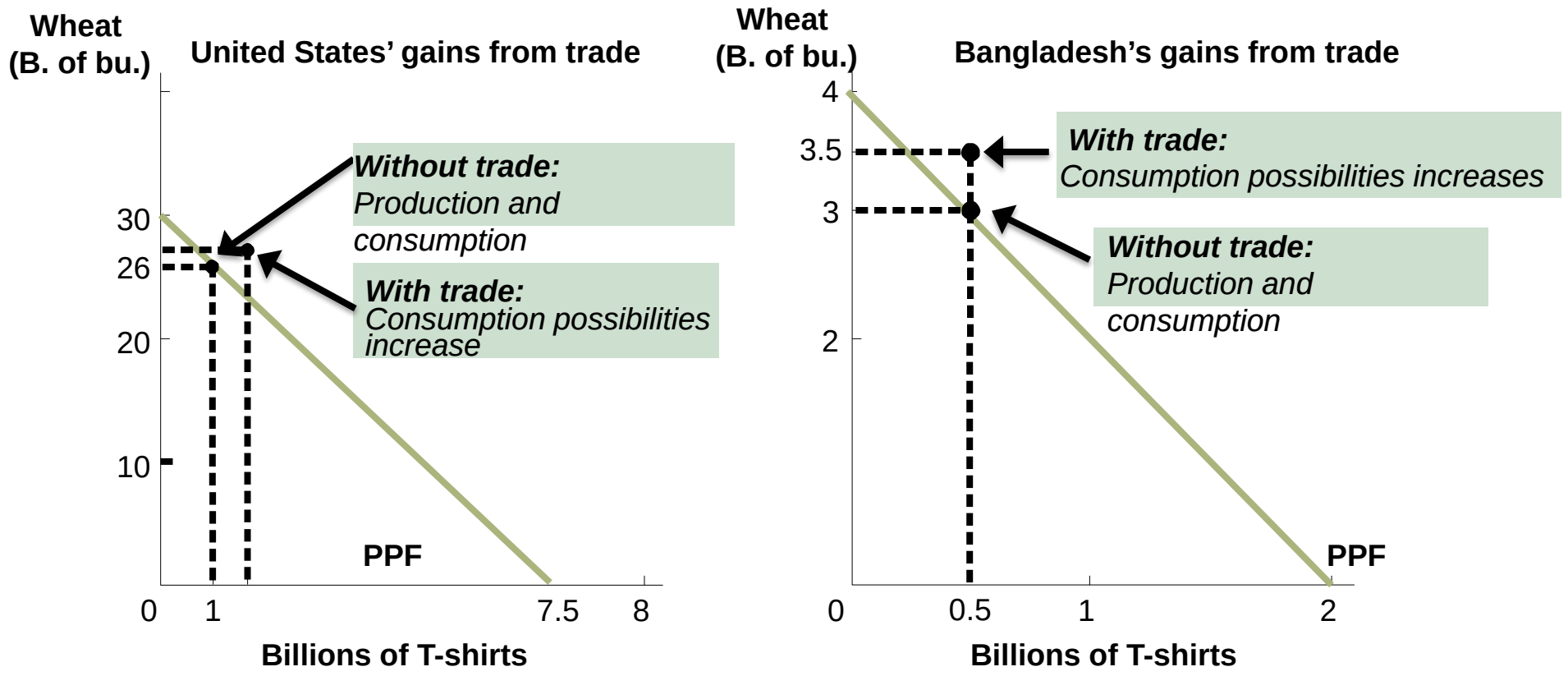
If each country specializes, total production increases. In that case, all U.S. workers produce wheat and all Bangladeshi workers produce shirts. Then the countries can trade wheat for t-shirts.

| | Country | Wheat (billions of bushels) | T-shirts (billions) |
|---|---|---|---|
| Without specialization | United States | 26 | 1 |
| | Bangladesh | 3 | 0.5 |
| | **Total** | **29** | **1.5** |
| With specialization | United States | 30 | 0 |
| | Bangladesh | 0 | 2 |
| | **Total** | **30** | **2** |

With specialization, more of everything is produced because the producers with the lowest costs produce each good. These are the gains from specialization and trade.

# Gains from Trade

The improvement in outcomes that occurs when specialized producers exchange goods and services is called the gains from trade.




With specialized production, consumption is outside of the PPF.

# Summary

Specialization and trade can make everyone better off.

An economy is driven by individuals seeking to make a profit; people specialize so as to exploit their comparative advantages.

This principle is as true for countries, like the United States and Bangladesh, as it is for individuals transacting with each other in the market place.

# Considerations for Designing an Economy

-What goods and services are produced?

Firms/governments/individuals must decide this while considering the trade-offs and opportunity costs of their choices.

-How are goods and services produced?

A firm might have several different methods for producing the same item.

-Who will receive the goods and services?

By income? By a principle of equity?

# Types of Economies

**Centrally planned economies -** Governments decide what to produce, how to produce it, and who received the goods and services.

**Market economies** – Households and firms make these decisions with prices and markets as the deciding force.

**Market**: A group of buyers and sellers of a good or service and the institution or arrangement by which they come together to trade

# Ch 3: Markets

- A *market* refers to the buyers and sellers who trade a particular good or service.
  - Markets can be located locally, globally, or even virtually.
- One special class of markets is the *perfectly competitive market*.
- Four characteristics of perfectly competitive markets.

| | |
|---|---|
| Standardized good | No transaction costs |
| Full information | Participants are price takers |

- In this chapter, markets are assumed to be perfectly competitive.

# Efficiency of Economies

Market economies promote:

**Productive efficiency** - Goods or services are produced at the lowest possible cost

**Allocative efficiency** - The marginal benefit of production is equal to its marginal cost

→Production is consistent with consumer preferences

# Caveats About Market Economies

Markets may not result in fully efficient outcomes. For example:

- Governments might interfere with market outcomes
- Market outcomes might ignore the desires of people who are not involved in transactions – ex: pollution

Plus, markets may result in high inequality; some people prefer more **equity**, i.e. fairer distribution of economic benefits.

# The Interaction of Demand and Supply

How do markets “decide” how much of a good or service to produce?

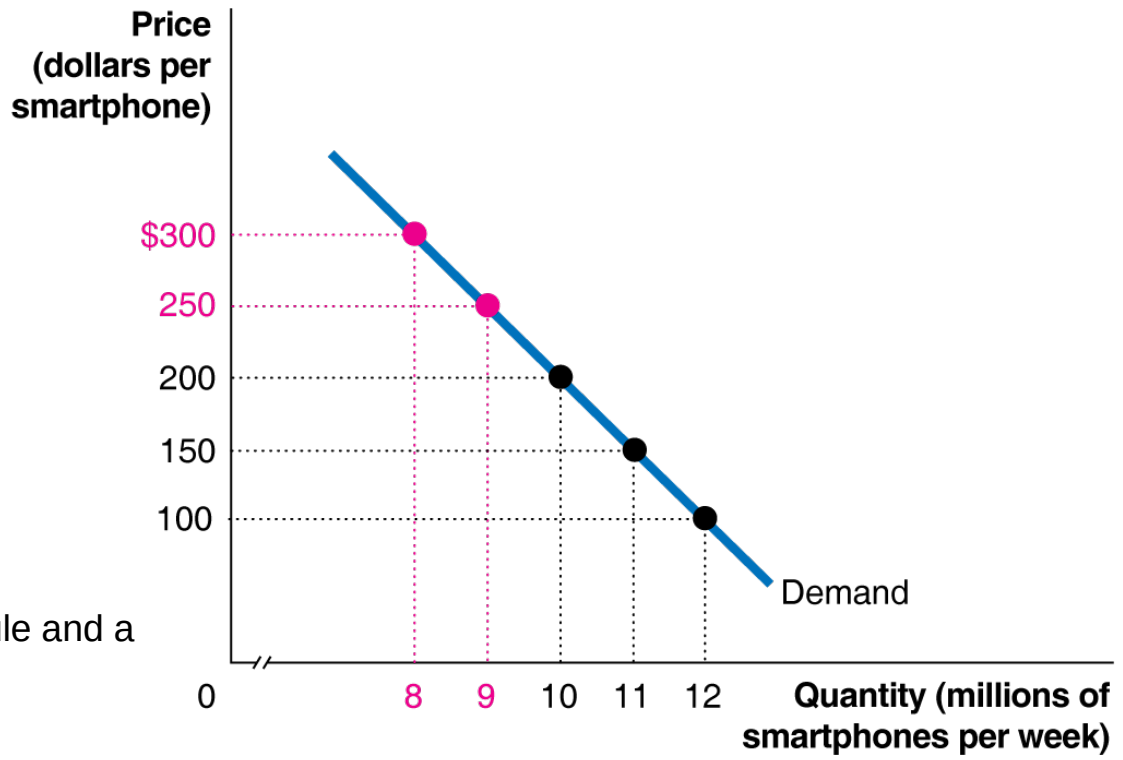
Can we generalize the notion of the trade-offs involved in every production decision?

# Demand Schedules and Quantity Demanded

**Demand schedule**: A table that shows the relationship between the price of a product and the quantity of the product demanded.

**Demand curve**: A curve that shows the relationship between the price of a product and the quantity of the product demanded.

| Demand Schedule | |
|---|---|
| Price (dollars per smartphone) | Quantity (millions of smartphones per week) |
| $300 | 8 |
| 250 | 9 |
| 200 | 10 |
| 150 | 11 |
| 100 | 12 |




A demand schedule and a demand curve

# Demand Curve and Market Demand

**Quantity demanded**: The amount of a good or service that a consumer (or market of consumers) is willing and able to purchase at a given price.

**Market demand**: the demand by all the consumers of a given good or service.

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|---|---|
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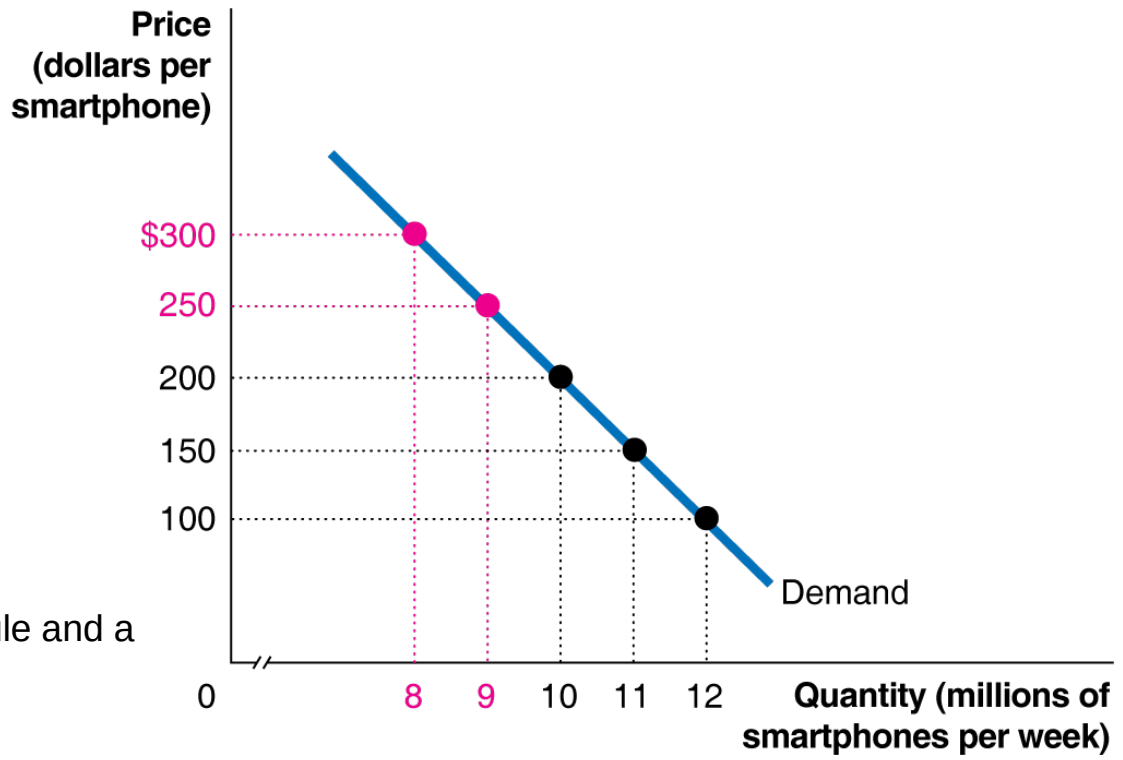


A demand schedule and a demand curve

# Ceteris Paribus

When drawing the demand curve, we assume ***ceteris paribus*** – all variables except price and quantity are assumed to be held constant.

| Demand Schedule | |
|---|---|
| Price (dollars per smartphone) | Quantity (millions of smartphones per week) |
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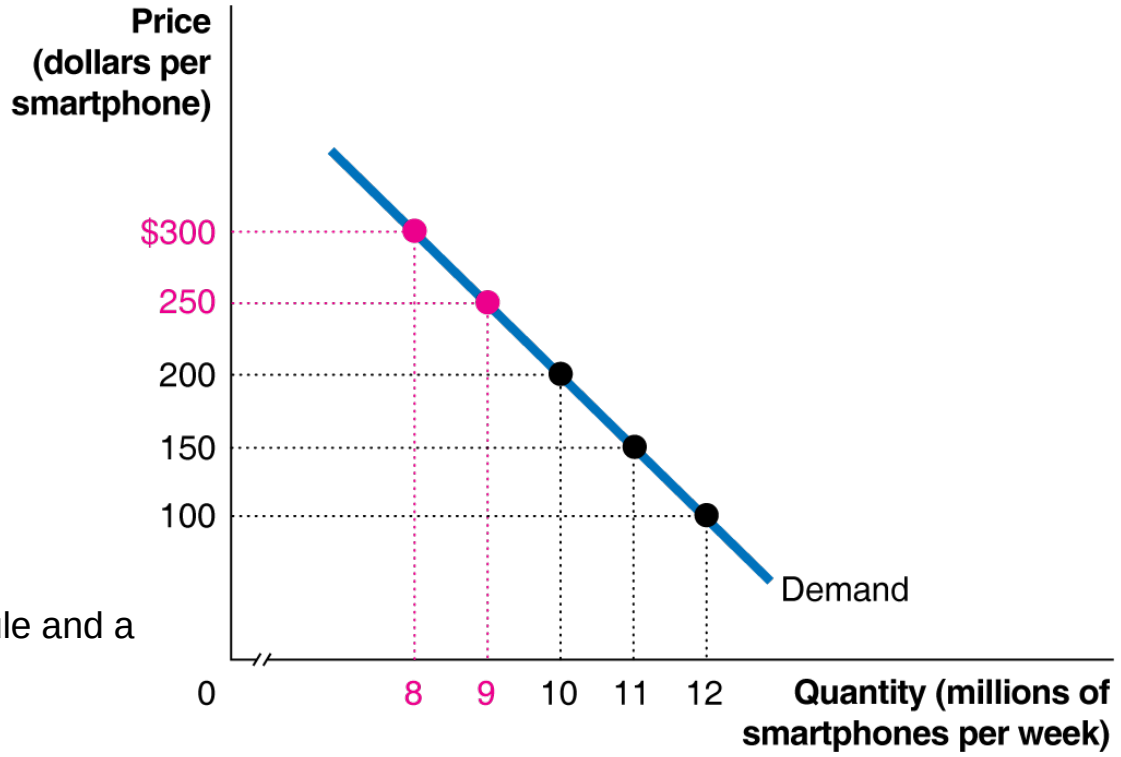


A demand schedule and a demand curve

# The Law of Demand

**Law of demand**: Holding everything else constant, when the price of a product falls, the quantity demanded of the product will increase, and vice versa.

*Implication: Demand curve slopes downward*

| Demand Schedule | |
|---|---|
| Price (dollars per smartphone) | Quantity (millions of smartphones per week) |
| $300 | 8 |
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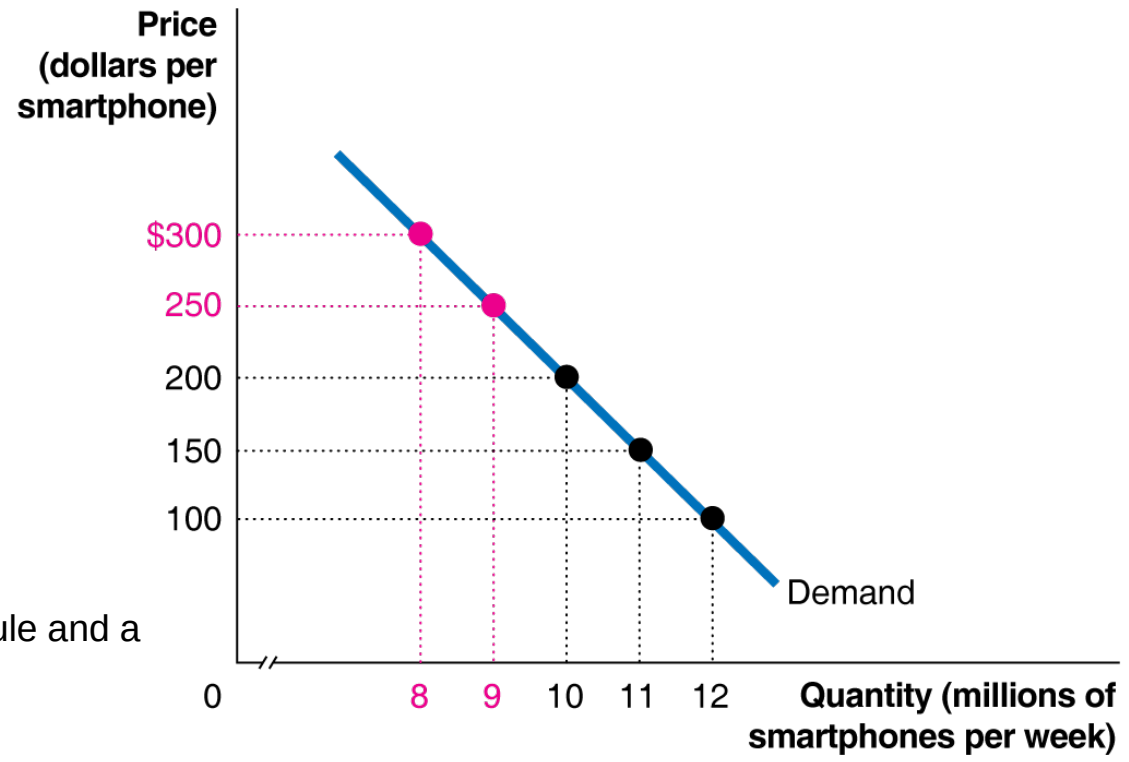



A demand schedule and a demand curve

# What Explains the Law of Demand?

When the price of a product falls, two effects cause consumers to purchase more of it:

The product has become cheaper *relative to other goods*, so consumers *substitute* toward it. This is the **substitution effect**.

The consumer now has greater purchasing power, and elects to purchase more goods overall. This is **income effect**.

**Substitution Effect + Income Effect = Total Change in Quantity Demanded Due to a Price Change**

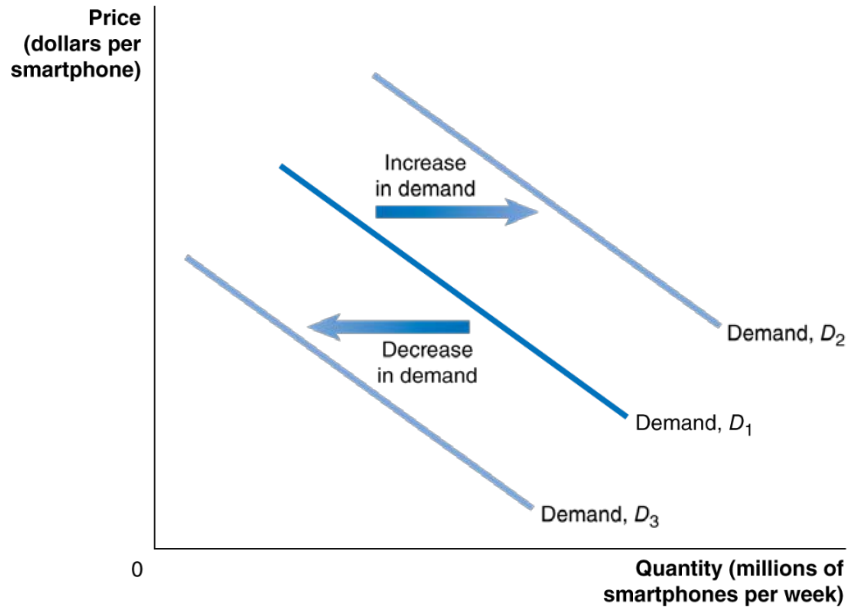
# Increase and Decrease in Demand

A change in something other than price:

→Shift in demand

A shift to the right ($D_1$ to $D_2$) is an **increase in demand**.

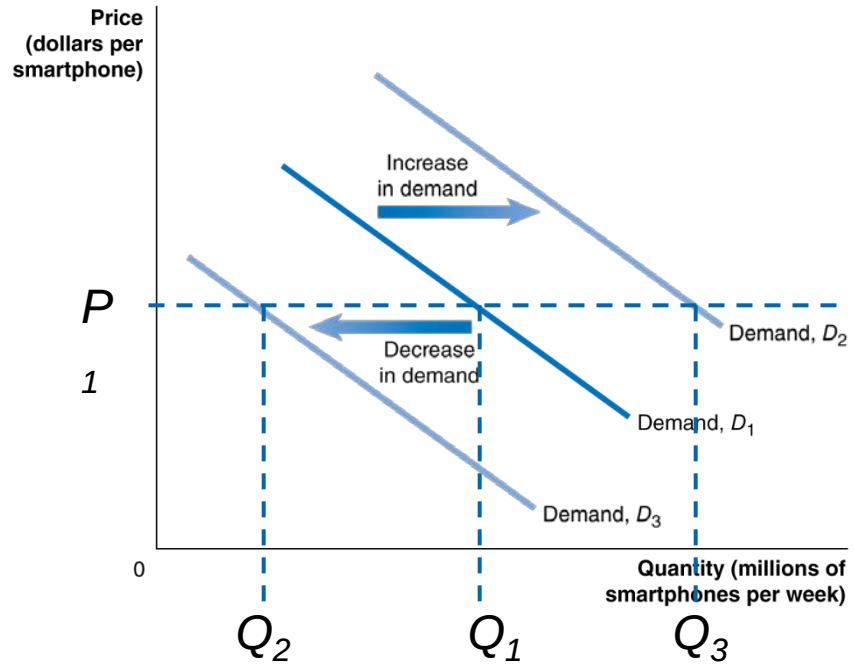
A shift to the left ($D_1$ to $D_3$) is a **decrease in demand**.




Shifting the demand curve

# Shifts of the Demand Curve

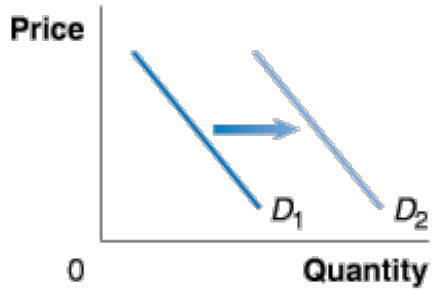
As the demand curve shifts, the quantity demanded changes at every possible price.




Shifting the demand curve

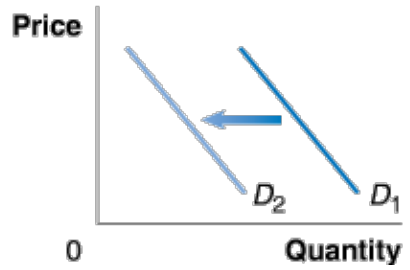
# Change in Income of consumers

***Normal good**:*
*A good for which the demand increases as income rises, and decreases as income falls.*




*Effect of increase in income, if good is normal*

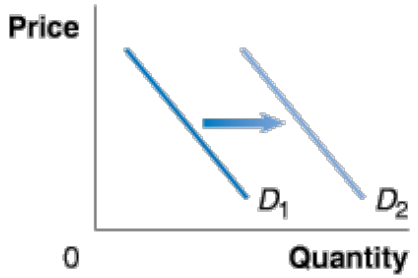
***Inferior good**:*
*A good for which the demand decreases as income rises, and increases as income falls.*




*Effect of increase in income, if good is inferior*

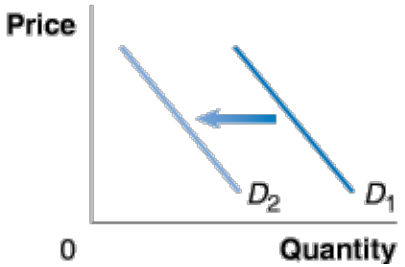
# Change in the Price of Related Goods

***Substitutes**:*
*Goods and services that can be used for the same purpose.*




*Effect on demand for Big Macs, if price of Whopper increases*

***Complements**:*
*Goods and services that are used together.*




*Effect on demand for Big Macs, if price of McDonald's fries increases*

Other sources: Change in tastes, change in demographics

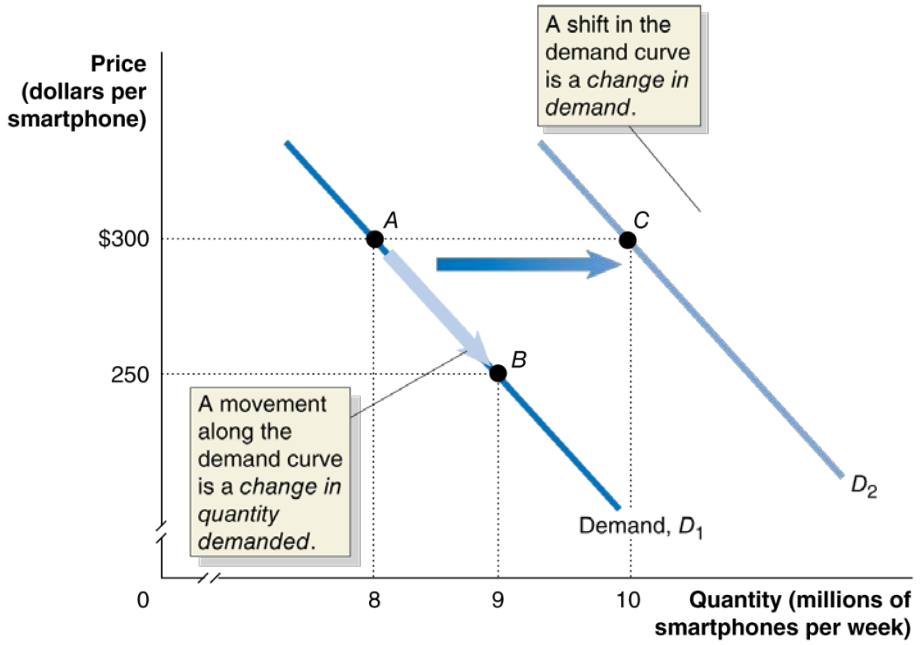
# Change in Demand vs. Change in Quantity Demanded

A change in the price of the product causes a movement along the demand curve.

This is a *change in quantity demanded.*

Any other change causes the entire demand curve to shift.

This is a *change in demand.*




A change in demand versus a change in quantity demanded