# Unit I: Basic Economic Concepts

# What is Economics in General?

- **Economics is the science of scarcity.**
- **Scarcity is the condition in which our wants are greater than our limited resources.**
- **Since we are unable to have everything we desire, we must make choices on how we will use our resources.**
- **In economics we will study the choices of individuals, firms, and governments.**

**Economics is the study of _choices_.**

**Examples:**

**You must choose between buying jeans or buying shoes.**
**Businesses must choose how many people to hire**
**Governments must choose how much to spend on welfare.**

# Economics Defined

**Economics-Social science concerned with the efficient use of limited resources to achieve maximum satisfaction of economic wants.**

**(Study of how individuals and societies deal with _scarcity_)**

# Micro vs. Macro

**MICROeconomics-**

**Study of small economic units such as individuals, firms, and industries (competitive markets, labor markets, personal decision making, etc.)**

**MACROeconomics-**

**Study of the large economy as a whole or in its basic subdivisions (National Economic Growth, Government Spending, Inflation, Unemployment, etc.)**

- ***Both microeconomics and macroeconomics are complementary to each other.***
- ***That is, macroeconomics can not be studied in isolation from microeconomics.***

# How is Economics used?

- Economists use the scientific method to make generalizations and abstractions to develop theories. This is called **theoretical economics.**

- A theory is a simplified picture of reality

- These theories are then applied to fix problems or meet economic goals. This is called **policy economics.**

# Positive vs. Normative

- **Positive Statements- Based on facts. Avoids value judgments**
- Just explains how things behave as they are

**It tries to answer the questions what was; what is; or what will be?**

**Example:**

- *The current inflation rate in Ethiopia is 12 percent.*
- *Poverty and unemployment are the biggest problems in Ethiopia.*
- *The life expectancy at birth in Ethiopia is rising.*

**Normative Statements- Includes value judgments (what ought to be or what the economy should be?).**

**Example:**

- *The poor should pay no taxes.*
- *There is a need for intervention of government in the economy.*
- *Females ought to be given job opportunities*

# Deductive Vs Inductive Method

- The fundamental objective of economics, like any science, is the establishment of valid generalizations about certain aspects of human behavior. Those generalizations are known as theories.
- Economic theory provides the basis for economic analysis which uses logical reasoning.
- There are two methods of logical reasoning: inductive and deductive.

## Deductive Reasoning

is a logical way of arriving at a particular or specific correct statement starting from a correct general statement

E.g Man is mortal

Sileshi is a man

Therefore Sileshi is mortal

Deduction involves certain steps

1. Selection of economic phenomena to be explained ( Identification of problem)
2. Formulation of assumption
3. Making inferences
4. Verification of inferences

## Inductive Reasoning

is a logical method of reaching at a correct general statement or theory based on several independent and specific correct statements.

Involves reasoning from particular facts to general principles

Steps:

1. Observation
2. Formulation of hypothesis
3. Generalization
4. Verification

# Some Important Concepts

Definitions

production: The process of using the services of labor and other resources to make goods and services available

Economic resources: Are inputs used in the process of production. They are divided into four broad categories

Labor: the services of human beings

includes both mental and physical labor

the compensation for mental labor is salary and that of physical labor is wage

Capital: includes equipments, tools, machinery, vehicles etc and skills created to help produce goods and services. The reward for the services of capital is called interest

Natural resources/Land : includes minerals, land etc. They are free gifts of nature. The reward for the services of land is called rent

Entrepreneurial ability: is a special category of human resources. It is a talent to develop products and organize production so as to make goods and services available. Profit is the compensation that entrepreneurs earn. They are

- innovators
- initiative takers
- risk takers

# The Factors of Production

## *The Factors of Production*

**Land**

**Land** includes the "gifts of nature," or natural resources not created by human effort.

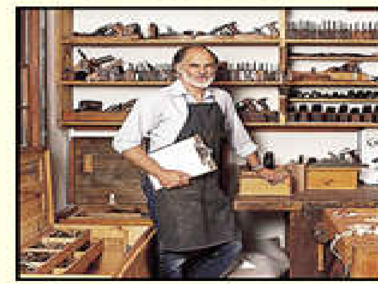
**Capital**

**Capital** includes the tools, equipment, and factories used in production.

**Labor**

**Labor** includes people with all their efforts and abilities.

**Entrepreneurs**



**Entrepreneurs** are individuals who start a new business or bring a product to market.

Technology is society's stock of knowledge. Is the knowledge of how to produce goods and services

Efficiency Is producing the goods and services in the right way.

They are of two types :

Allocatively efficiency : Producing the right product

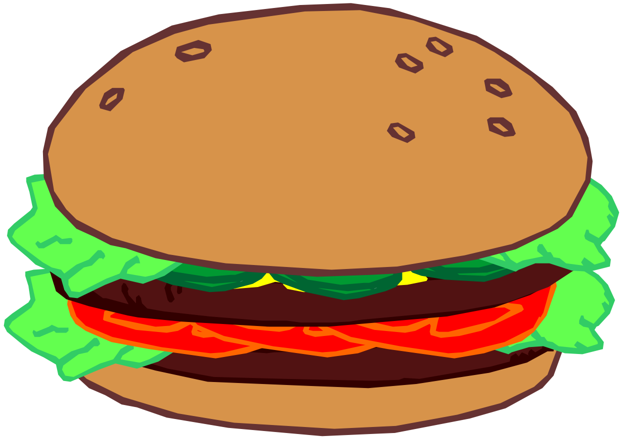
Production Efficiency : Production of goods in least costly way

Full employment refers to a situation where no resource remains idle.

Full production a situation where all employed resources are used so that they yield the maximum possible satisfaction of human wants

# People Face Tradeoffs

"There is no such thing as a free lunch!"



# People Face Tradeoffs.

To get one thing, we usually have to give up another thing.

Resources are scarce, so people face tradeoffs

- Guns v. butter
- Food v. clothing
- Leisure time v. work
- Efficiency v. equity

Making decisions requires trading off one goal against another.

- Efficiency v. Equity
  - *Efficiency* means society gets the most that it can from its scarce resources.
  - *Equity* means the benefits of those resources are distributed fairly among the members of society.

## The Cost of Something Is What You Give Up to Get It.

- Decisions require comparing costs and benefits of alternatives.
  - Whether to go to college or to work?
  - Whether to study or go out on a date?
  - Whether to go to class or sleep in?
- The *opportunity cost* of an item is what you give up to obtain that item.

# What is the Production Possibilities Curve?

- A production possibilities curve or graph (PPG or PPC) is a model that shows alternative ways that an economy can use its scarce resources
- This model graphically demonstrates scarcity, trade-offs, opportunity costs, and efficiency.

## 4 Key Assumptions

- **Only two goods can be produced**
- **Full employment of resources**
- **Fixed Resources (*Ceteris Paribus*)**
- **Fixed Technology**

# Production "Possibilities" Table

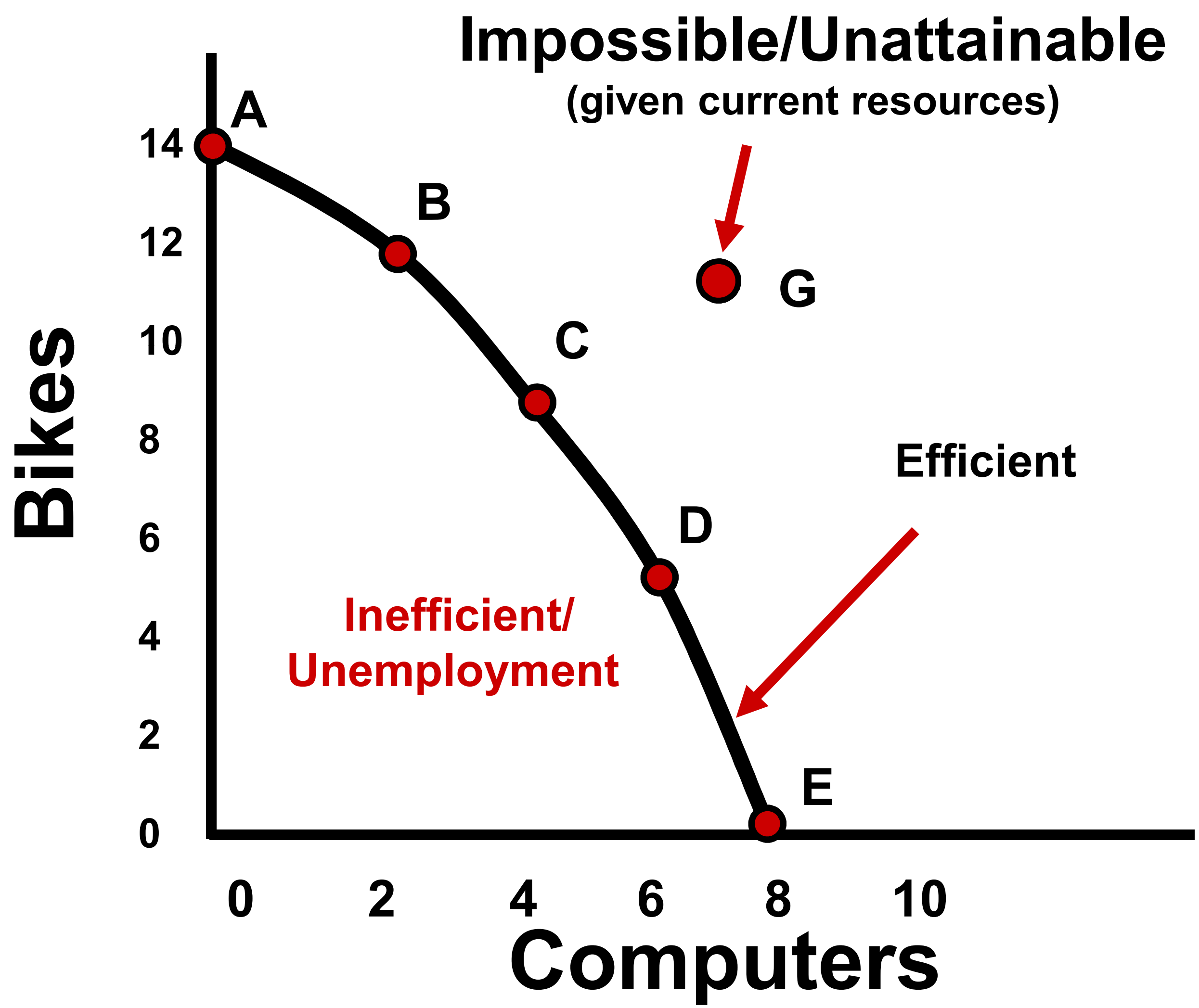
| | a | b | c | d | e |
|---|---|---|---|---|---|
| Bikes | 14 | 12 | 9 | 5 | 0 |
| Computers | 0 | 2 | 4 | 6 | 8 |

**Each point represents a specific combination of goods that can be produced given full employment of resources.**

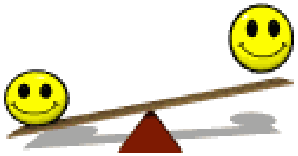
**NOW GRAPH IT: Put bikes on y-axis and computers on x-axis**

# PRODUCTION POSSIBILITIES

## How does the PPC graphically demonstrates scarcity, trade-offs, opportunity costs and efficiency?



# Opportunity Cost



*Example:*

*1. The opportunity cost of moving from a to b is…* ***2 Bikes***

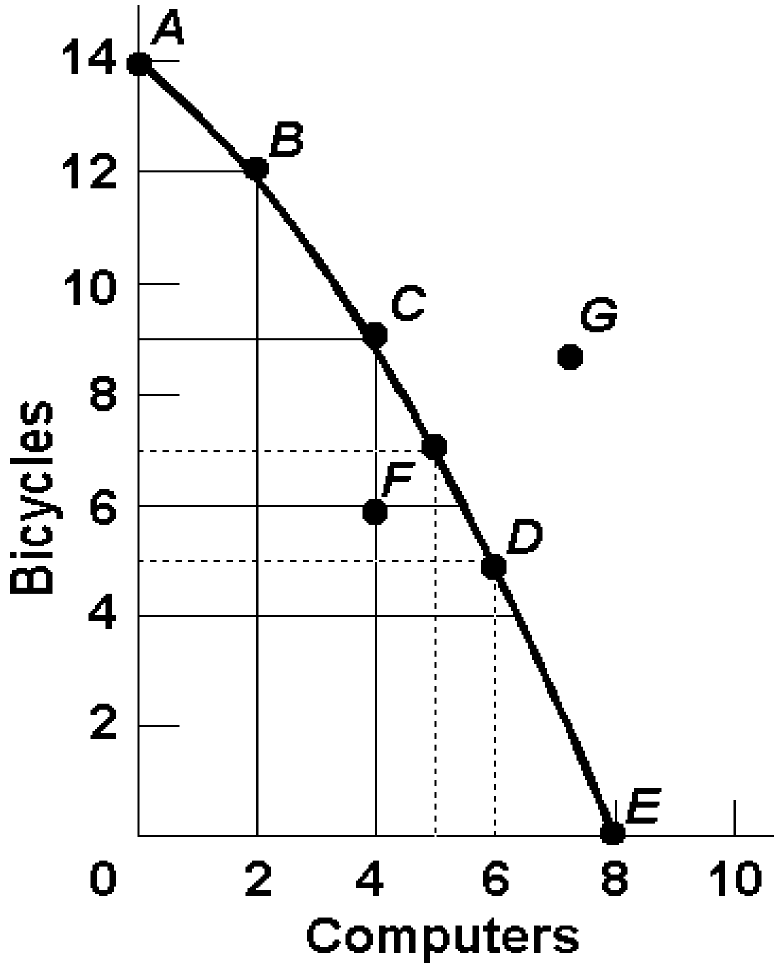
*2.The opportunity cost of moving from b to d is…* ***7 Bikes***

*3.The opportunity cost of moving from d to b is…* ***4 Computers***

*4.The opportunity cost of moving from f to c is…* ***0 Computers***

*5.What can you say about point G?*

***Unattainable***



# PRODUCTION POSSIBILITIES

| | A | B | C | D | E |
|---|---|---|---|---|---|
| Burger | 4 | 3 | 2 | 1 | 0 |
| PIZZA | 0 | 1 | 2 | 3 | 4 |

- **List the Opportunity Cost of moving from a-b, b-c, c-d, and d-e.**
- **Constant Opportunity Cost- Resources are easily adaptable for producing either good.**
- **Result is a straight line PPC (not common)**

# PRODUCTION POSSIBILITIES

| | A | B | C | D | E |
|---|---|---|---|---|---|
| PIZZA | 18 | 17 | 15 | 10 | 0 |
| ROBOTS | 0 | 1 | 2 | 3 | 4 |

- **List the Opportunity Cost of moving from a-b, b-c, c-d, and d-e.**
- **Law of Increasing Opportunity Cost-**
  - **As you produce more of any good, the opportunity cost (forgone production of another good) will increase.**
  - **Why? Resources are NOT easily adaptable to producing both goods.**
- **Result is a <u>bowed out</u> (Concave) PPC**

# PER UNIT Opportunity Cost

**How much each marginal unit costs = $\frac{\text{Opportunity Cost}}{\text{Units Gained}}$**

***Example:***

*1. The PER UNIT opportunity cost of moving from a to b is…*

***1 Bike***

*2.The PER UNIT opportunity cost of moving from b to c is…*

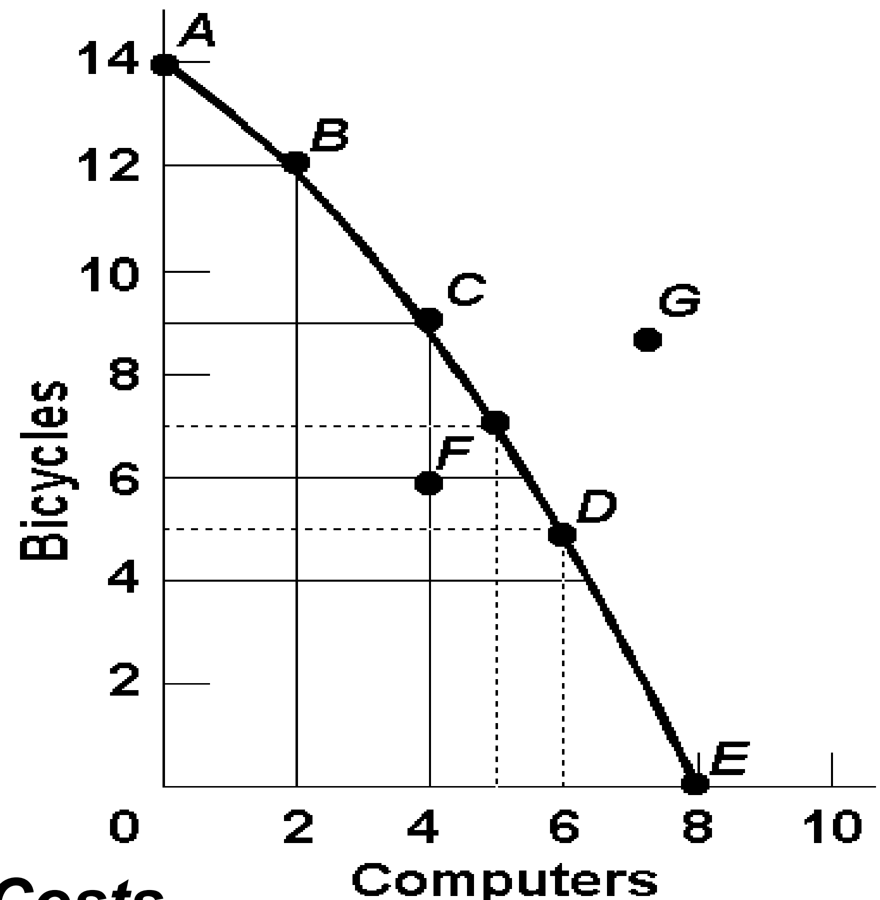
***1.5 (3/2) Bikes***

*3.The PER UNIT opportunity cost of moving from c to d is…*

***2 Bikes***

*4.The PER UNIT opportunity cost of moving from d to e is…*

***2.5 (5/2) Bikes***




***NOTICE: Increasing Opportunity Costs***

# Shifting the Production Possibilities Curve

# PRODUCTION POSSIBILITIES

## 4 Key Assumptions Revisited

- **Only two goods can be produced**
- **Full employment of resources**
- **Fixed Resources (4 Factors)**
- **Fixed Technology**

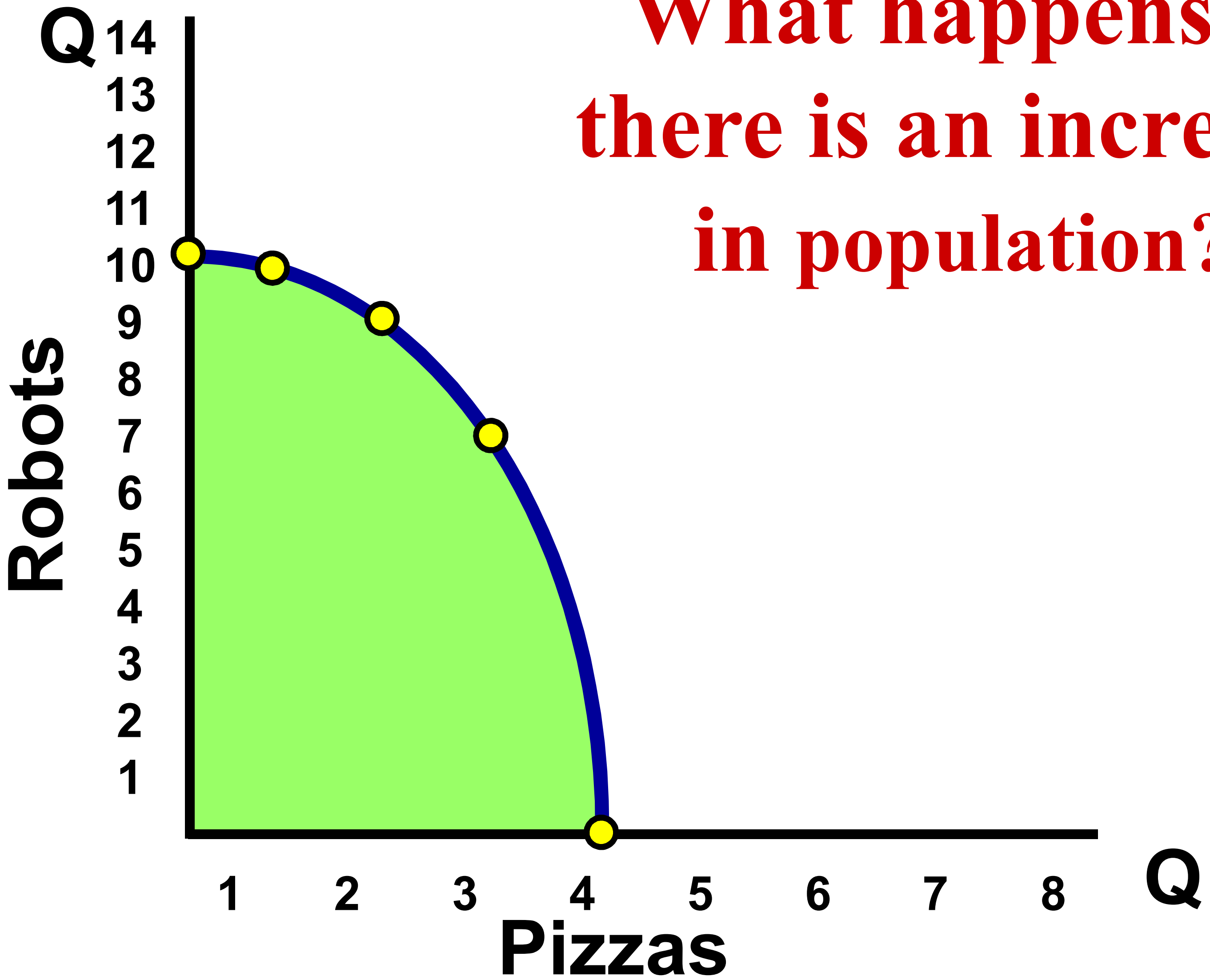
**What if there is a change?**

**3 Shifters of the PPC**

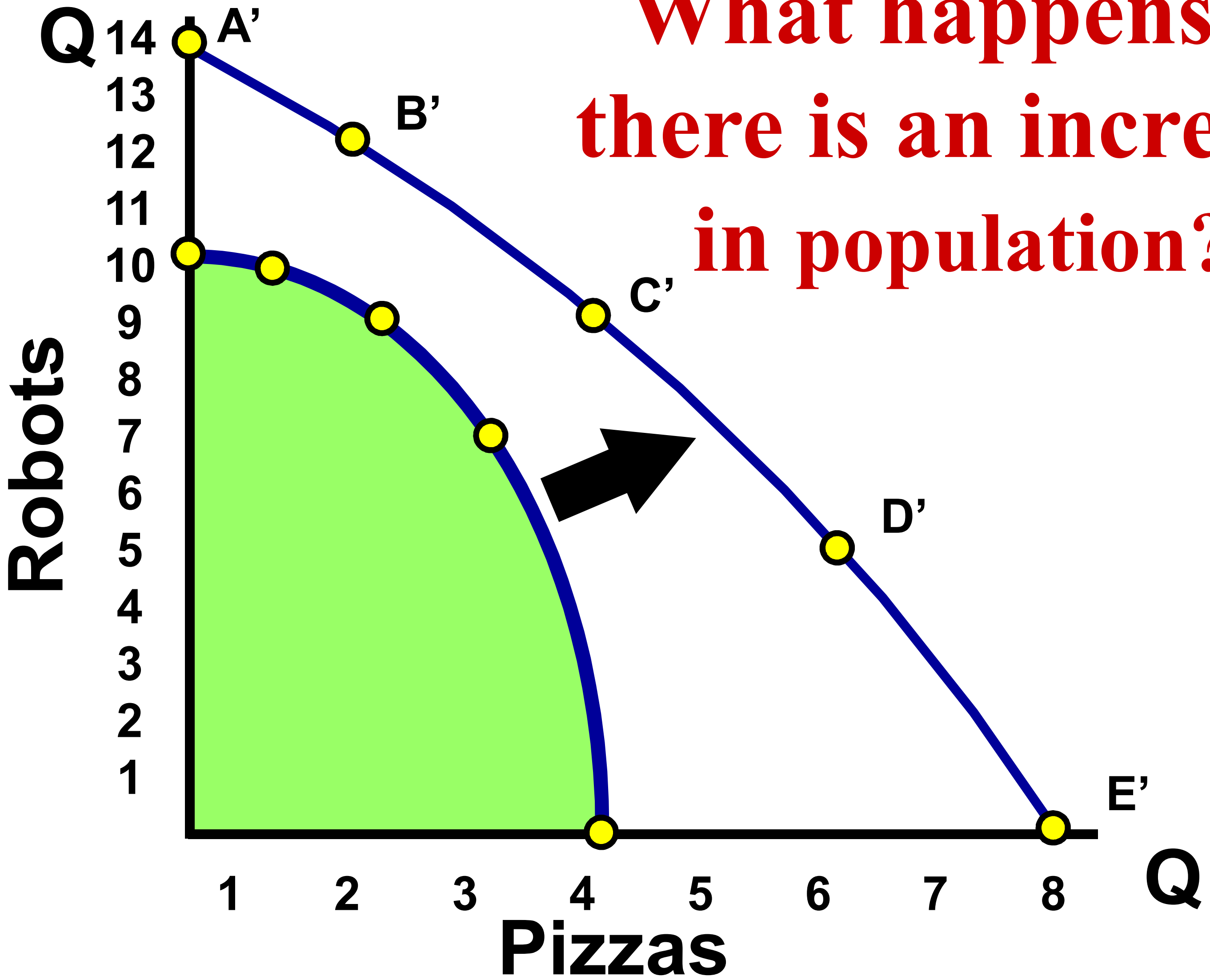
1. **Change in resource quantity or quality**
2. **Change in Technology**
3. **Change in Trade**

# PRODUCTION POSSIBILITIES

**What happens if there is an increase in population?**

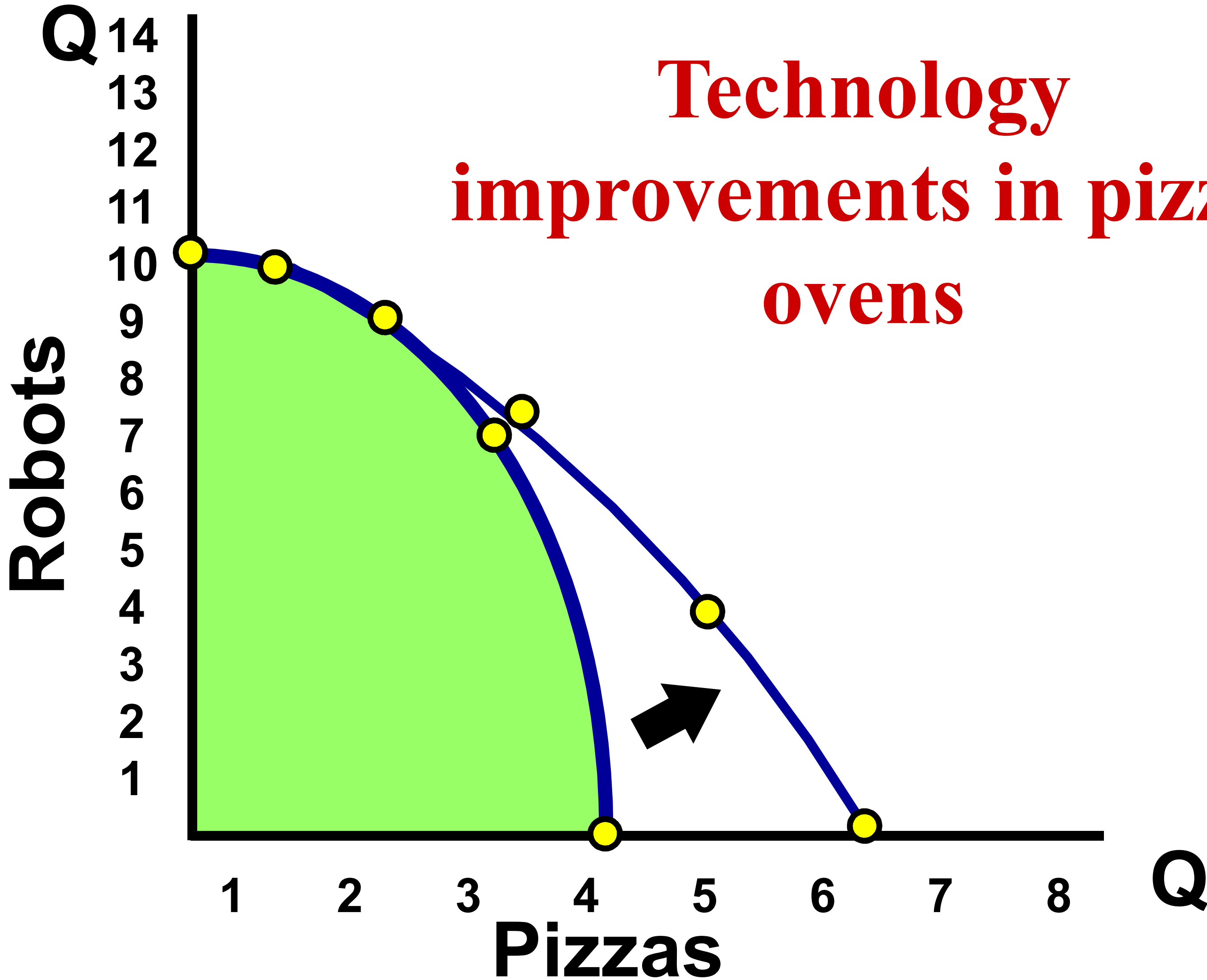


# PRODUCTION POSSIBILITIES




**What happens if there is an increase in population?**

# PRODUCTION POSSIBILITIES



# The Production Possibilities Curve and Efficiency

# Two Types of Efficiency

**Productive Efficiency-**

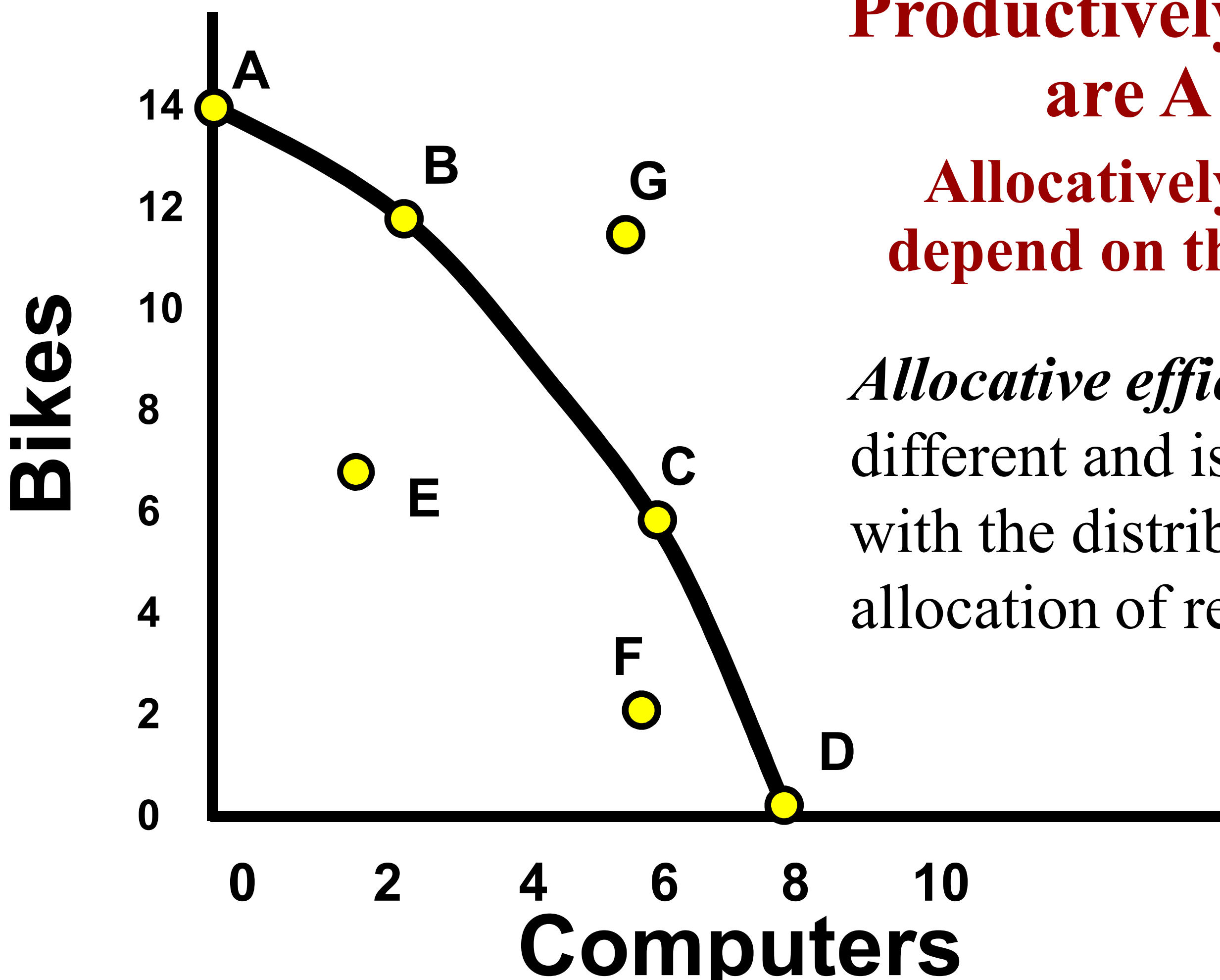
- **Products are being produced in the least costly way.**
- **This is any point ON the Production Possibilities Curve**

**Allocative Efficiency-**

- **The products being produced are the ones most desired by society.**
- **This *optimal* point on the PPC depends on the desires of society.**

# Productive and Allocative Efficiency

**Which points are productively efficient?**
**Which are allocatively efficient?**




**Productively Efficient points are A through D**

**Allocatively Efficient points depend on the wants of society**

***Allocative efficiency*** is quite different and is more concerned with the distribution and allocation of resources in society.

# Economic Growth and the PPF

- The expansion of production possibilities—and increase in the standard of living—is called **economic growth**.
  - –Two key factors influence economic growth:
    - Technological change
    - Capital accumulation

•**Technological change** is the development of new goods and of better ways of producing goods and services.

•**Capital accumulation** is the growth of capital resources, which includes *human capital*.

Economic growth is represented by outward shift of the PPF

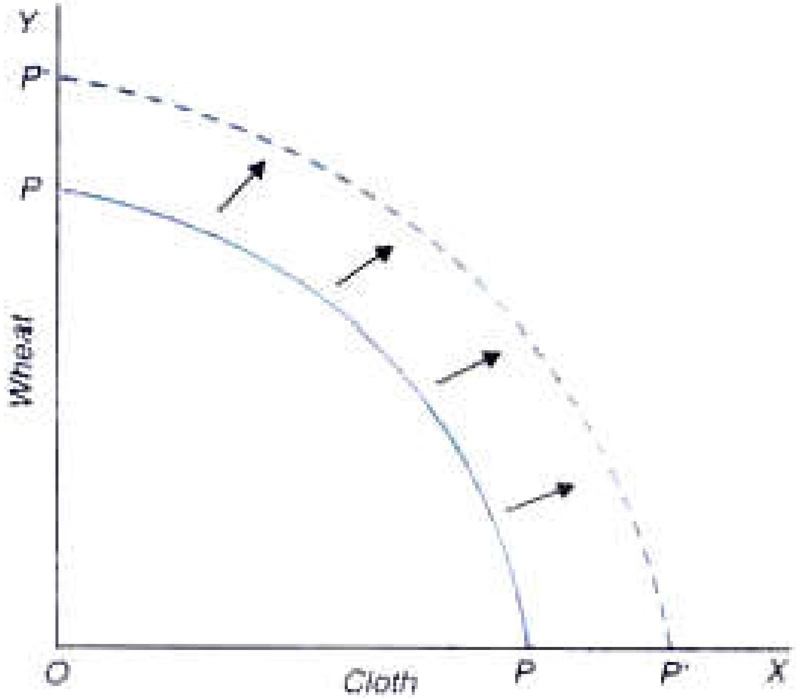



Fig 1.3. Shift in Production Possibility Curve due to Economic Growth

# PPC Practice

## Draw a PPC showing changes for each of the following:

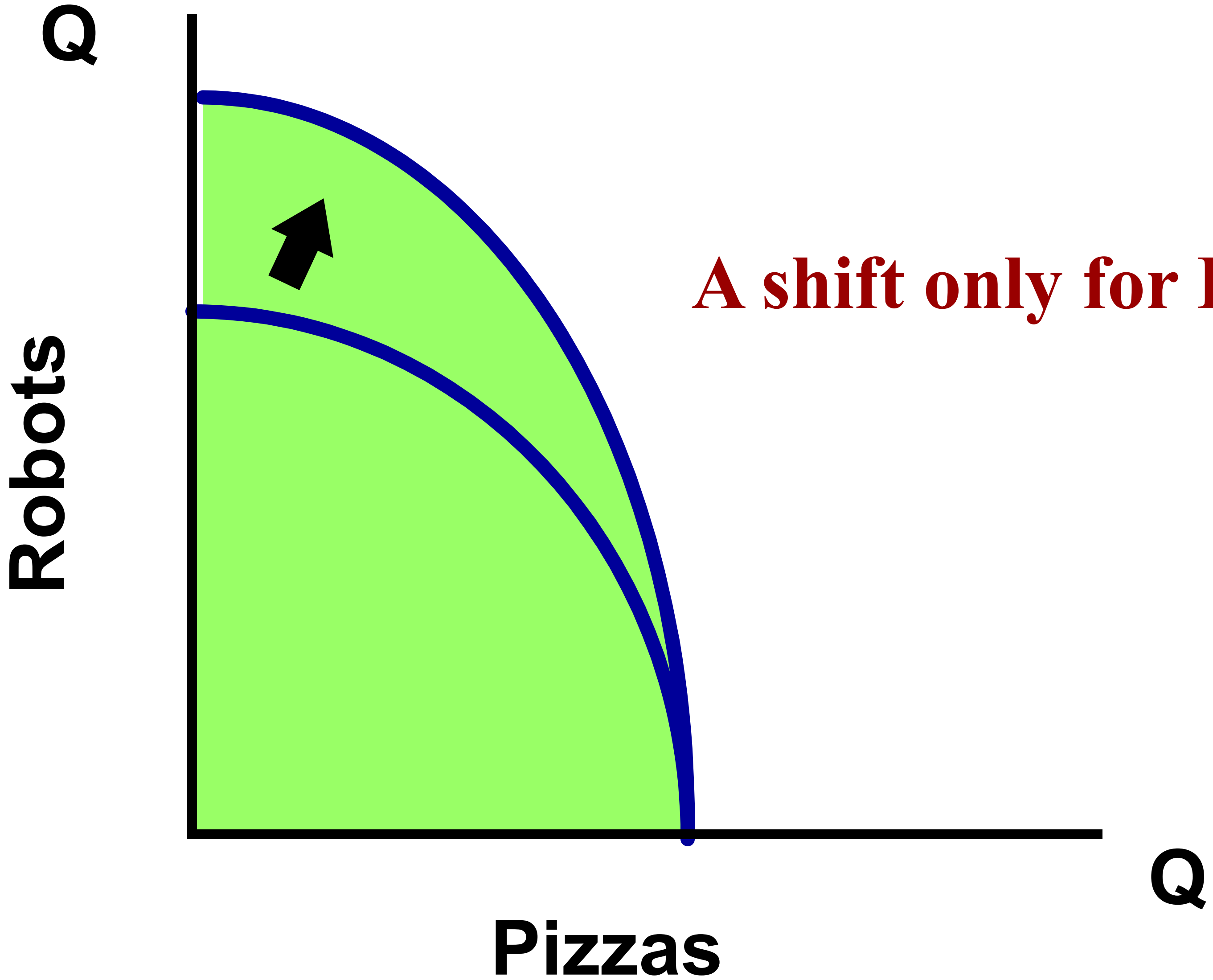
### Pizza and Robots (3)

1. New robot-making technology
2. Decrease in the demand for pizza
3. Mad cow disease kills 85% of cows

### Consumer goods and Capital Goods (4)

4. BP Oil Spill in the Gulf
5. Faster computer hardware
6. Many workers unemployed
7. Significant increases in education

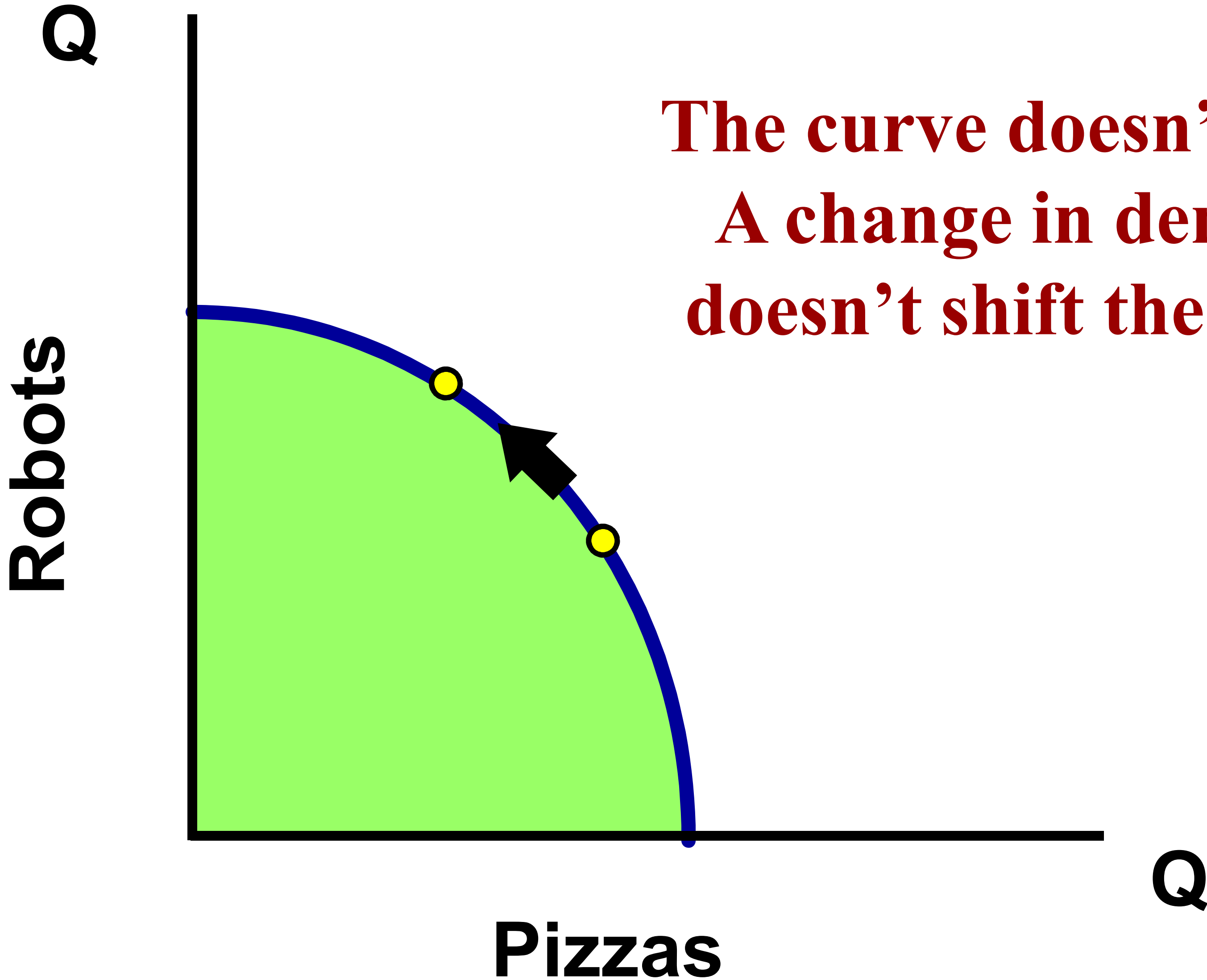
# Question #1
## New robot making technology




A shift only for Robots

# Question #2

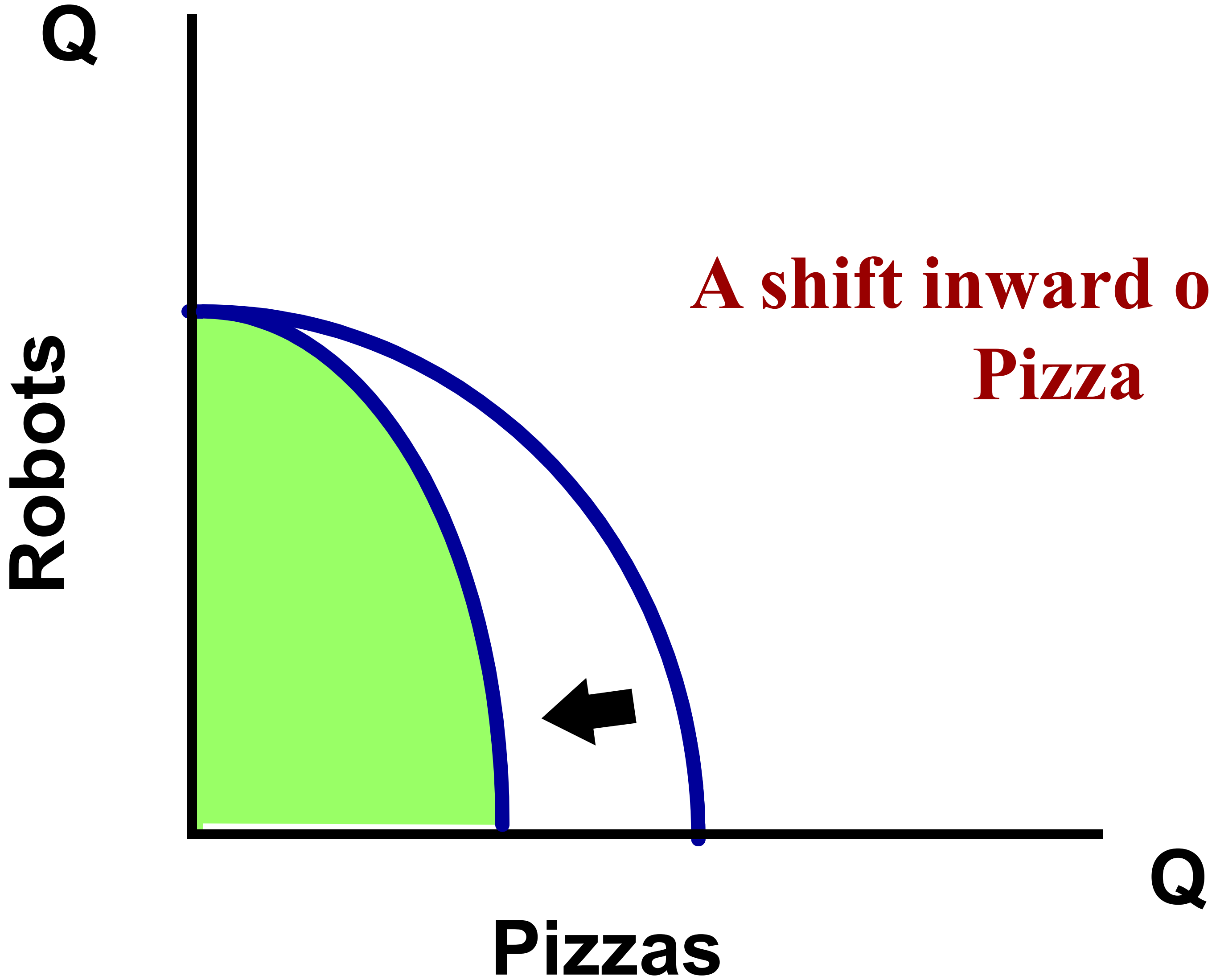
## Decrease in the demand for pizza




The curve doesn't shift!
A change in demand doesn't shift the curve

# Question #3

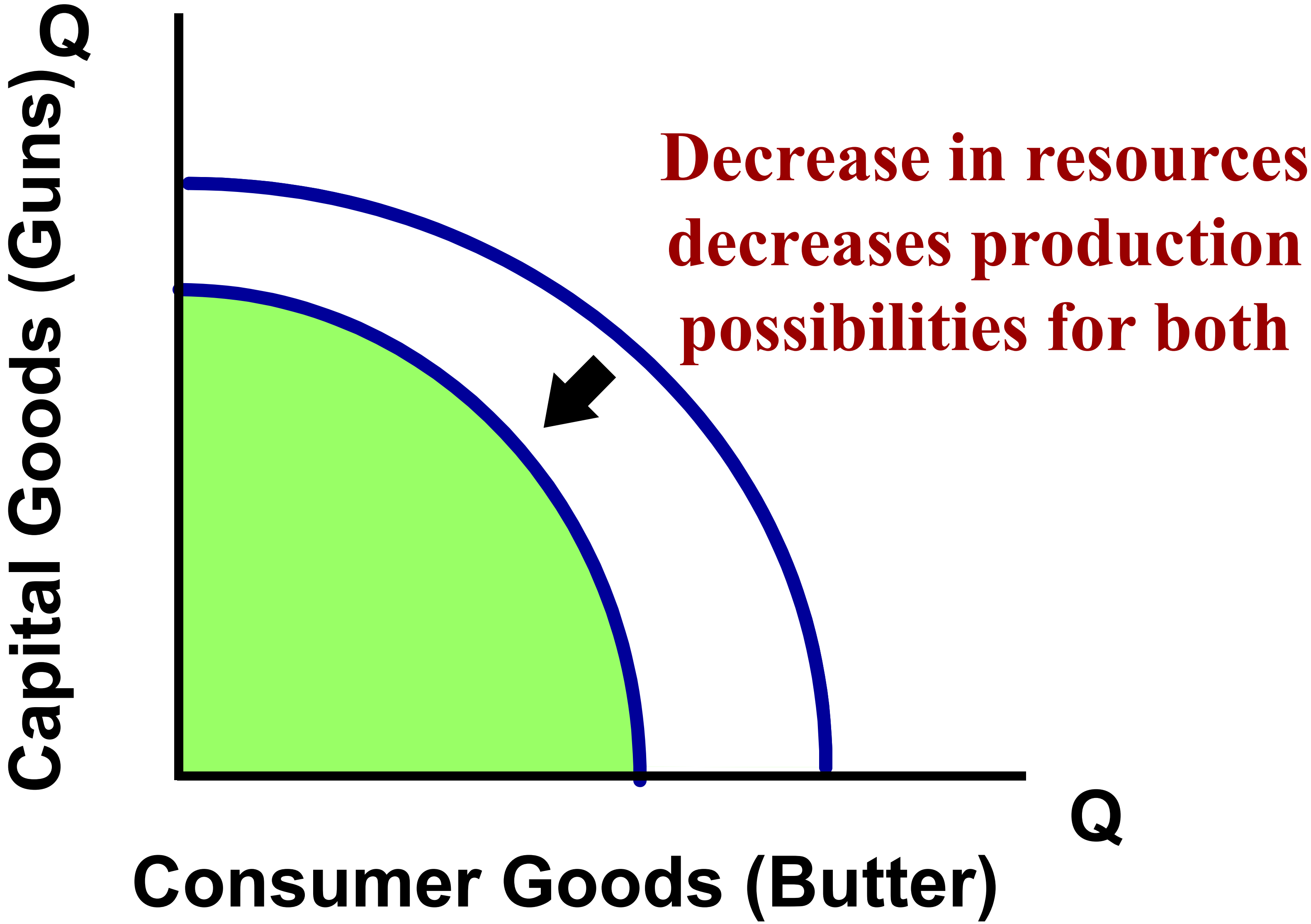
# Mad cow disease kills 85% of cows




A shift inward only for Pizza

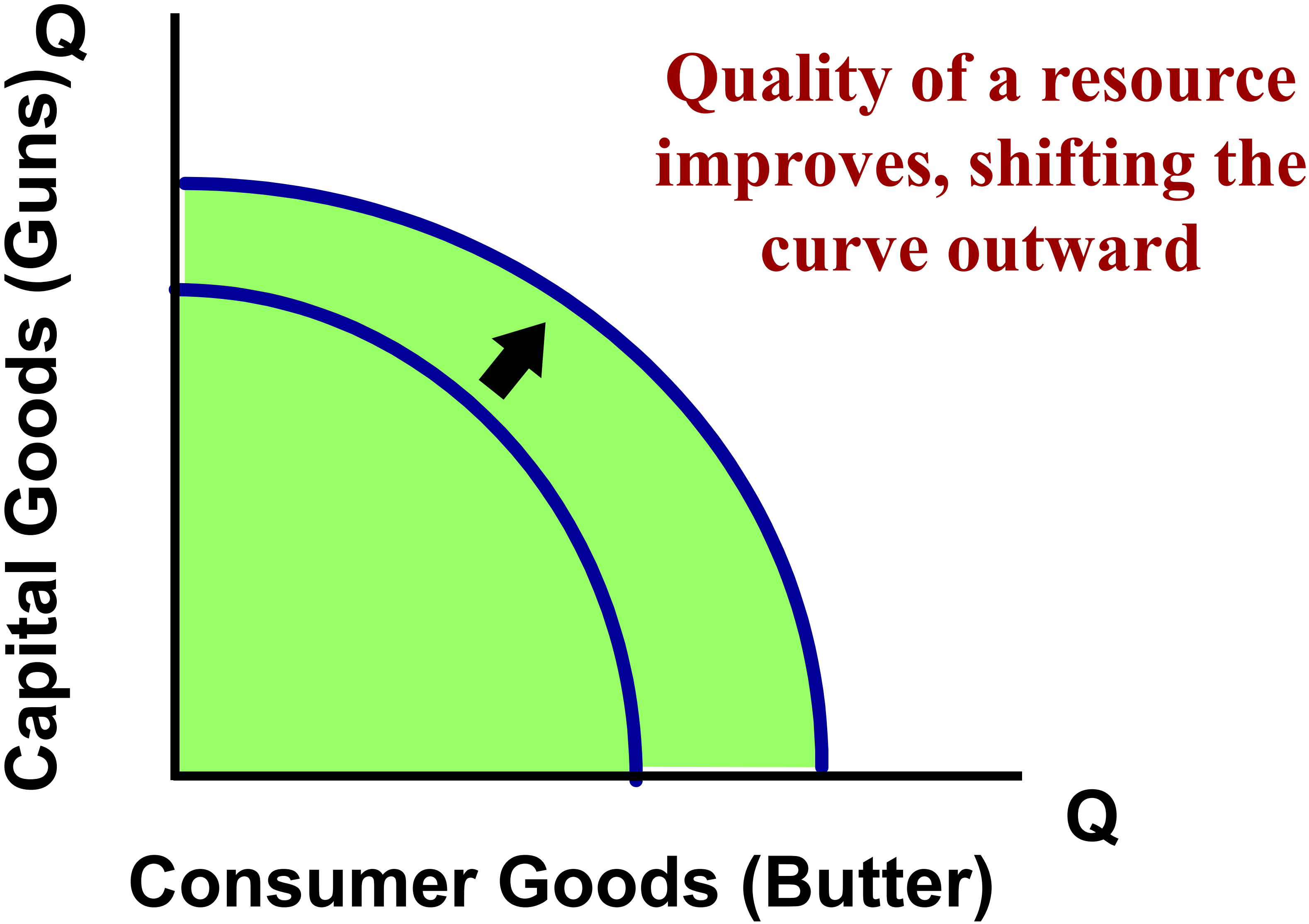
# Question #4

## BP Oil drop in the Gulf



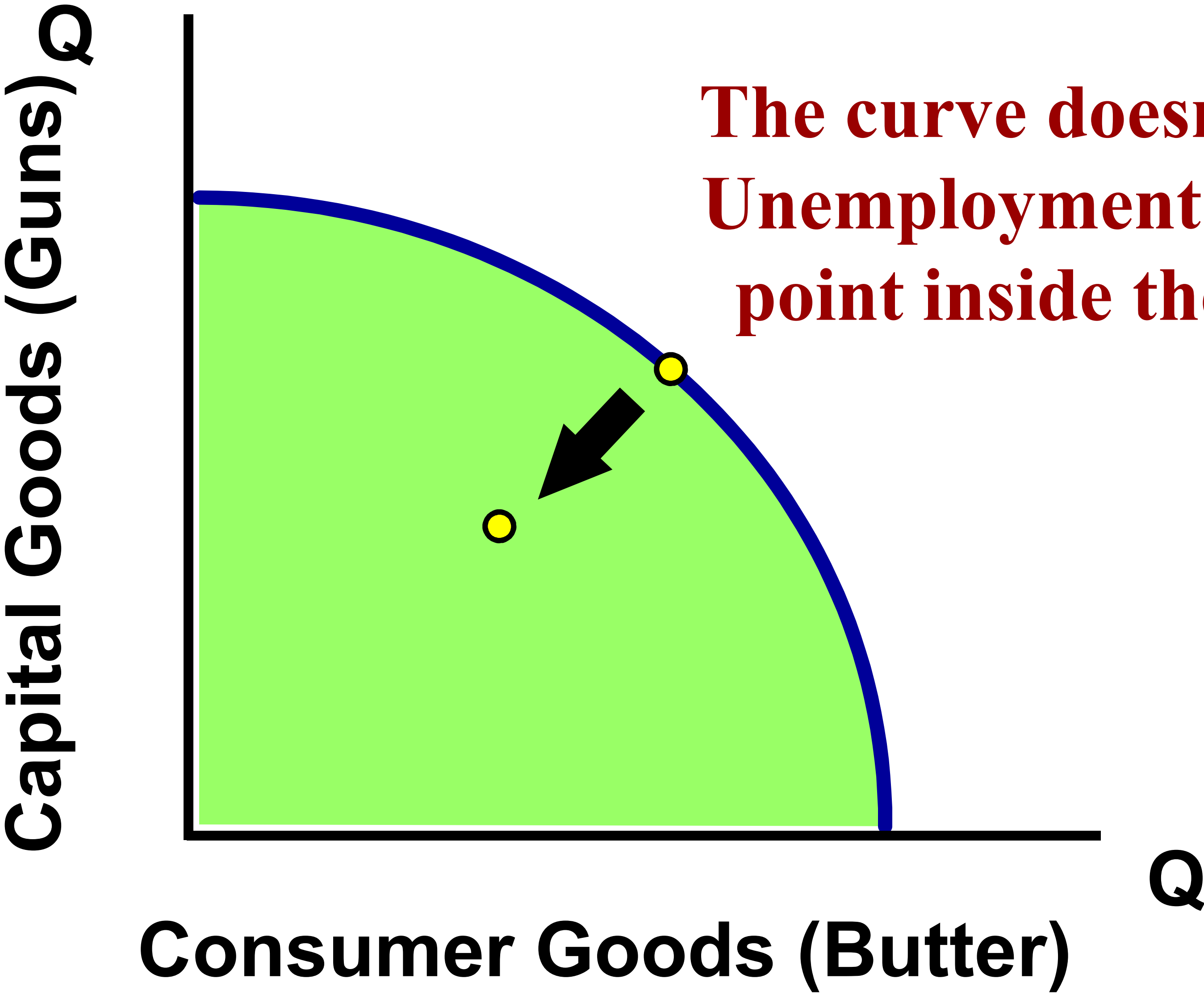
# Question #5

## Faster computer hardware



# Question #6

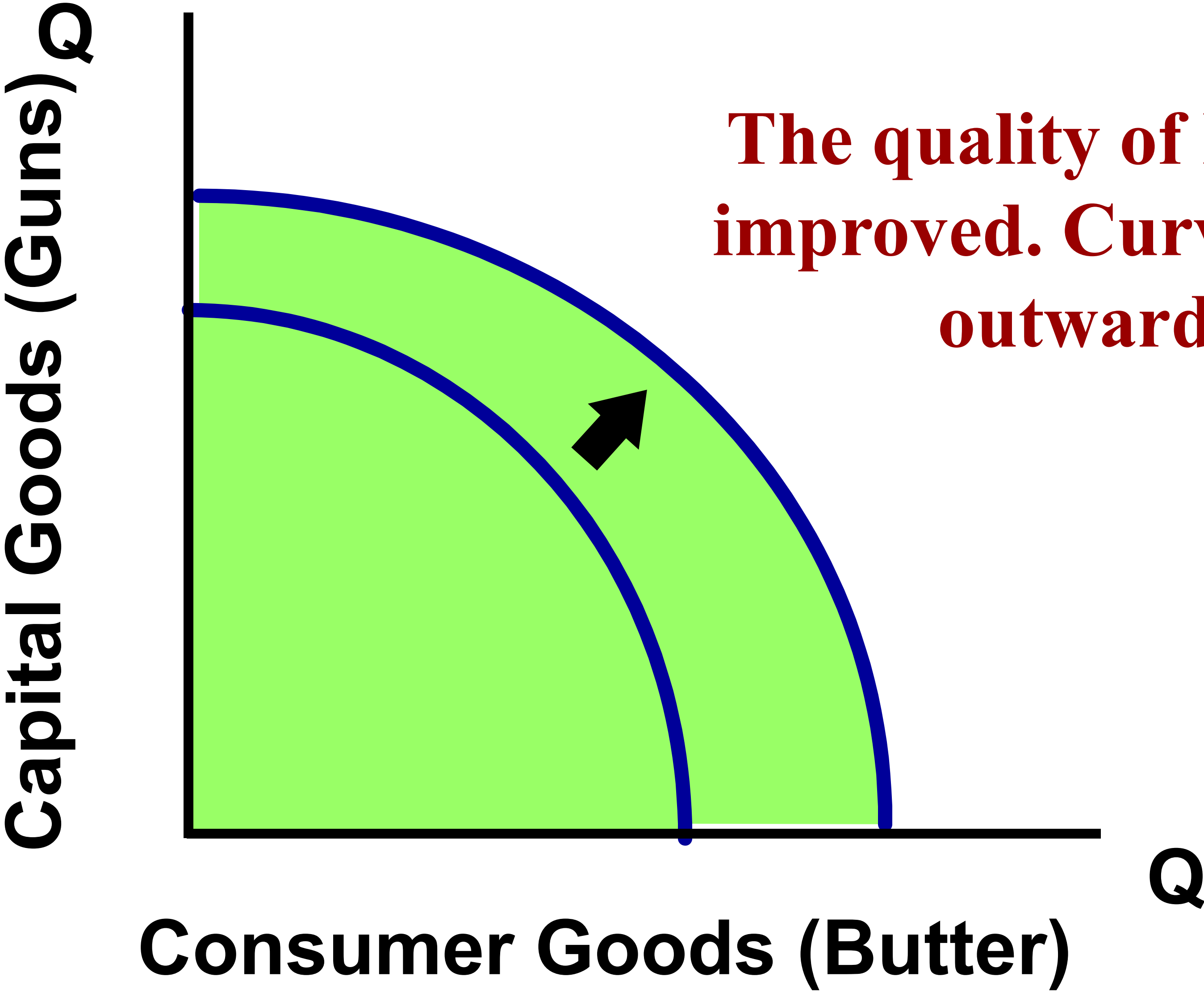
## Many workers unemployed




**The curve doesn't shift! Unemployment is just a point inside the curve**

# Question #7

## Significant increases in education




The quality of labor is improved. Curve shifts outward.

# Every society must answer three questions:

## The Three Economic Questions

1. **What goods and services should be produced?** ***The problem of allocation of resources***
2. **How should these goods and services be produced?** ***Problem of choice of technique***
3. **Who consumes these goods and services?** ***The problem of distribution of national product***

**The way these questions are answered determines the <u>economic system</u>**

**An economic system is the method used by a society to produce and distribute goods and services.**

# Economic Systems

1. Centrally Planned (Command) Economy
2. Free-Market Economy
3. Mixed Economy

# Centrally Planned Economies

**In a centrally planned economy (communism), the government…**

1. **owns all the resources and there is no right to private property.**
2. **decides what to produce, how much to produce and who will receive it.** (A central authority (government) has to answer the big three questions)

- Government decides the needs of the people, the best way to produce it and for everyone!

**Examples:**

- **Cuba, North Korea, former Soviet Union**

# *Main Features of Command Economy*

- **Collective ownership:** All means of production are owned by the society as a whole
- **Central economic planning:** planning of resource allocation is performed by the controlling authority according to given socio-economic goals
- **Strong government role:** Government has complete control over all economic activities.
- **Maximum social welfare:**
  does not allow the exploitation of labour.
- **Relative equality of incomes:** and there are no opportunities for accumulation of wealth

# Advantages and Disadvantages

## What is GOOD about Communism?

1. **Low unemployment:**
   **Very Little unemployment**
1. **Great Job Security: the government doesn't go out of business**
2. **Equal incomes means no extremely poor people**
3. **Education, public health, other services cost very little if anything**
4. **Elimination of private monopolies and inequalities**

## What is BAD about Communism?

1. **No incentive to work harder**
2. **No incentive to innovate or come up with good ideas-** (New and different ideas are discouraged)
3. **No competition keeps quality of goods poor.**
4. **Corrupt leaders-**Requires a large bureaucracy
5. **Few individual freedoms**

# Does a command economy answer the big three questions?

- What is being produced?
  - Whatever the government decides
- How is it being produced?
  - The government will tell someone to make it
- For whom is it being produced?
  - Whomever the government decides needs it

# Characteristics of Free Market

1. **Little government involvement in the economy. (Laissez Faire = Let it be)**
2. **Individuals OWN resources and answer the three economic questions.**
3. **The opportunity to make PROFIT gives people INCENTIVE to produce quality items efficiently.**
4. **Wide variety of goods available to consumers.**
5. **Competition and Self-Interest work together to regulate the economy (keep prices down and quality up).**

**Reword for Communism**

# Example of Free Market

**Example of how the free market regulates itself:**

**If consumers want computers and only one company is making them…**

**Other businesses have the INCENTIVE to start making computers to earn PROFIT.**

**This leads to more COMPETITION….**

**Which means lower prices, better quality and more product variety.**

**We produce the goods and services that society wants because "resources follow profits."**

**The End Result: Most efficient production of the goods that consumers want, produced at the lowest prices and the highest quality.**

# The Invisible Hand

**The concept that society's goals will be met as individuals seek their own self-interest.**

**Example: Society wants fuel-efficient cars…**

- **Profit-seeking producers will make more.**
- **Competition between firms results in low prices, high quality and greater efficiency.**
- **The government doesn't need to get involved because the needs of society are automatically met.**

**Competition and self-interest act as an <u>invisible hand</u> that regulates the free market.**

## Advantages

- Individual Freedom for all
- Lack of government interference
- Incredible variety to choose from
- High degree of consumer satisfaction

## Disadvantages

- Rewards only productive people
- Workers and businesses face uncertainty (Competition)
- Not enough public goods (Education, health, defense)
- Unemployment
- Must guard against market failure

# Answer the big three…

- What will be produced?
  - Whatever the consumer wants
- How will it be produced?
  - Entrepreneurs will respond to demand
- For whom will it be produced?
  - Whomever is willing to work for it (or afford it)

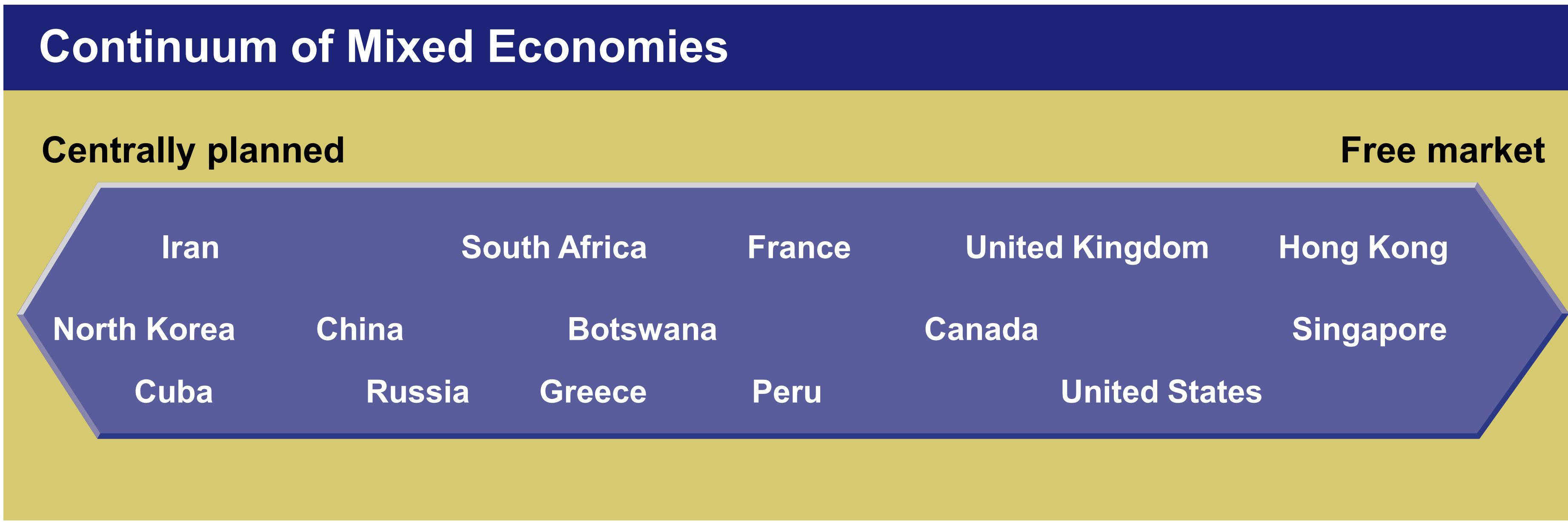
# Mixed Economic System

- The basic economic questions are answered: by combining traditional, state-run, and private enterprises.

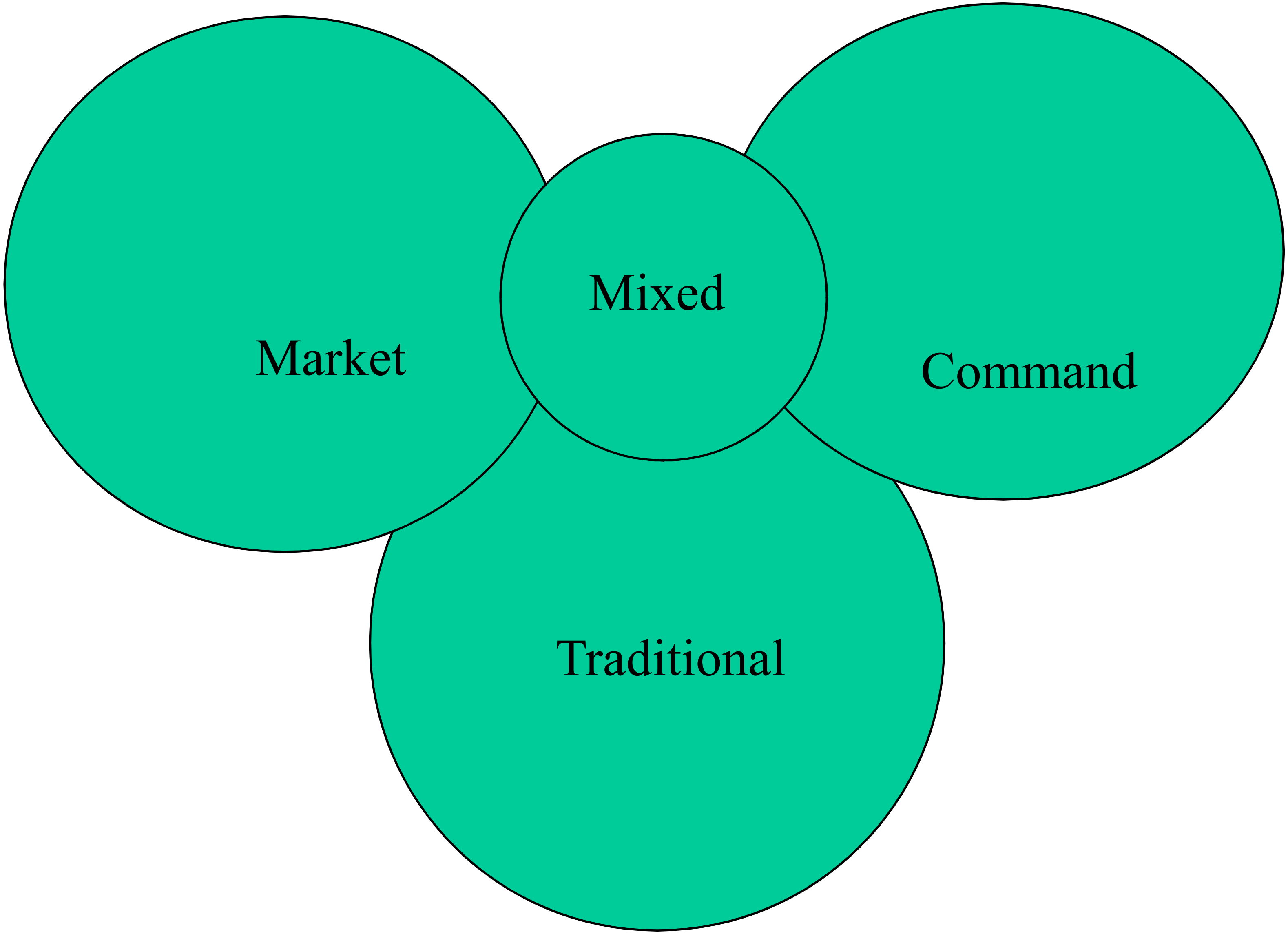
# Mixed Economic System: No real disadvantages

- A combination a traditional, market, and command economies.
- Need government intervention – create laws protecting property rights and enforcing contracts
- Governments provide for national defense, roads and highway systems, conservation, environmental protection, education
- Key is to balance control and freedom

# The degree of government involvement in the economy varies among nations, and can affect its society.



Create a graphic organizer to help you remember each system



# Advantages of Mixed Economy

1. **Private property, profit motive and price mechanism:**

- ➢ All the advantages of a capitalistic economy, such as the right to private property, motivation through the profit motive, and control of economic activity through the price mechanism, are available in a mixed economy.
- ➢ At the same time, government control ensures that they do not lead to exploitation

2. **Adequate freedom:** Mixed economies allow adequate freedom to different economic units such as consumers, employees, producers, and investors.

3. **Rapid and planned economic development:** Planned economic growth takes place, resources are properly and efficiently utilized, and fast economic development takes place because the private and public sector complement each other.

4. **Social welfare and fewer economic inequalities:** The government's restricted control over economic activities helps in achieving social welfare and economic equality.

# Disadvantages of Mixed Economy

1. **Ineffectiveness and inefficiency:**

- The public sector might be inefficient due to lack of incentive and responsibility
- the private sector might be made ineffective by government regulation and control.

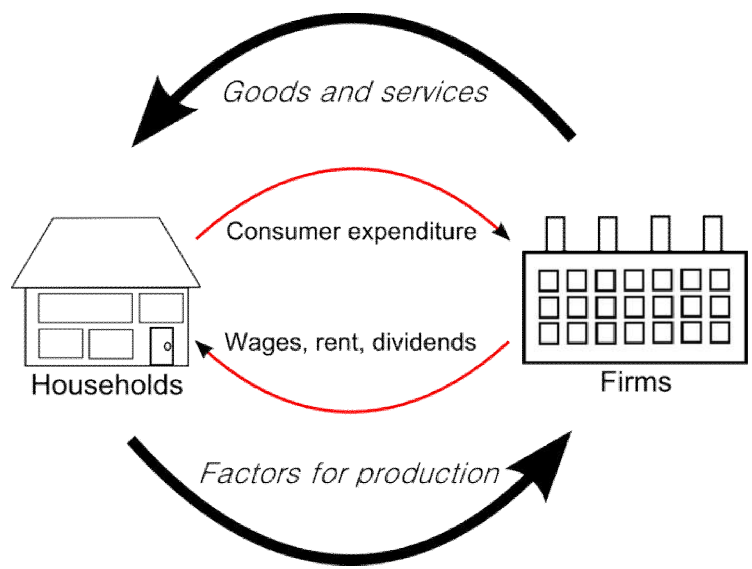
2. **Economic fluctuations:** If the private sector is not properly controlled by the government, economic fluctuations and unemployment can occur.
3. **Corruption and black markets:** if government policies, rules and directives are not effectively implemented, the economy can be vulnerable to increased corruption and black market activities.

# THE CIRCULAR FLOWS

**Circular flow model (matrix)** shows:

– The circular flow of expenditures and incomes that result from decision makers' choices and

– The way those choices interact in markets determines what, how, and for whom goods and services are produced.



# Households and Businesses

**Households and Businesses**

- **Households** are individuals or people living together as decision-making units.
- **Firms (businesses)** are institutions that organize production of goods and services.

# Markets

**Markets**

- A **market** is any arrangement that brings buyers and sellers together and enables them to do business.
- **Product (goods) markets**: markets in which goods and services are bought and sold.
- **Resource (factor) markets:** markets in which ***factors of production*** are bought and sold.

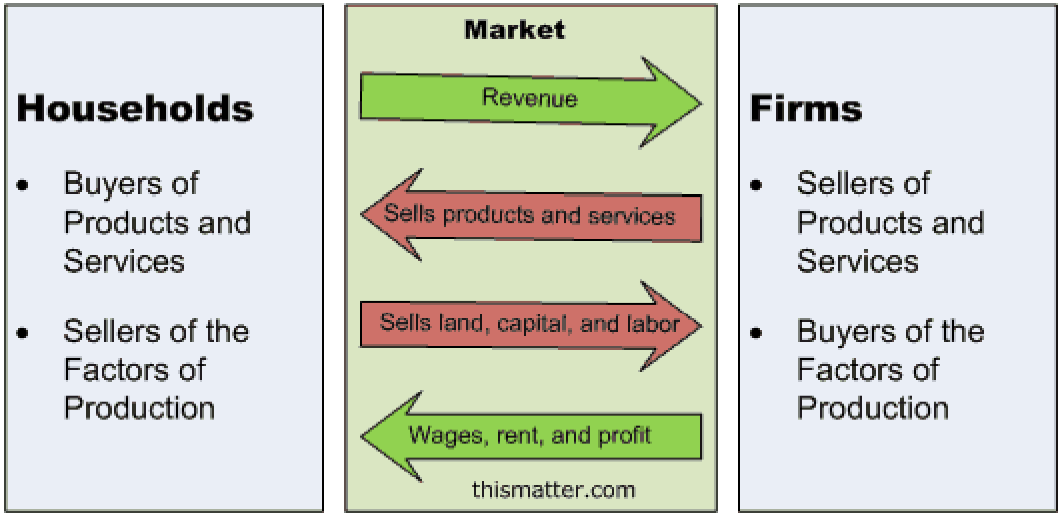

# Real Flows and Money Flows

**In factor markets:**

- Households supply factors of production
- Firms hire factors of production.

**In goods markets:**

- Firms supply goods and services produced.
- Households buy goods and services.

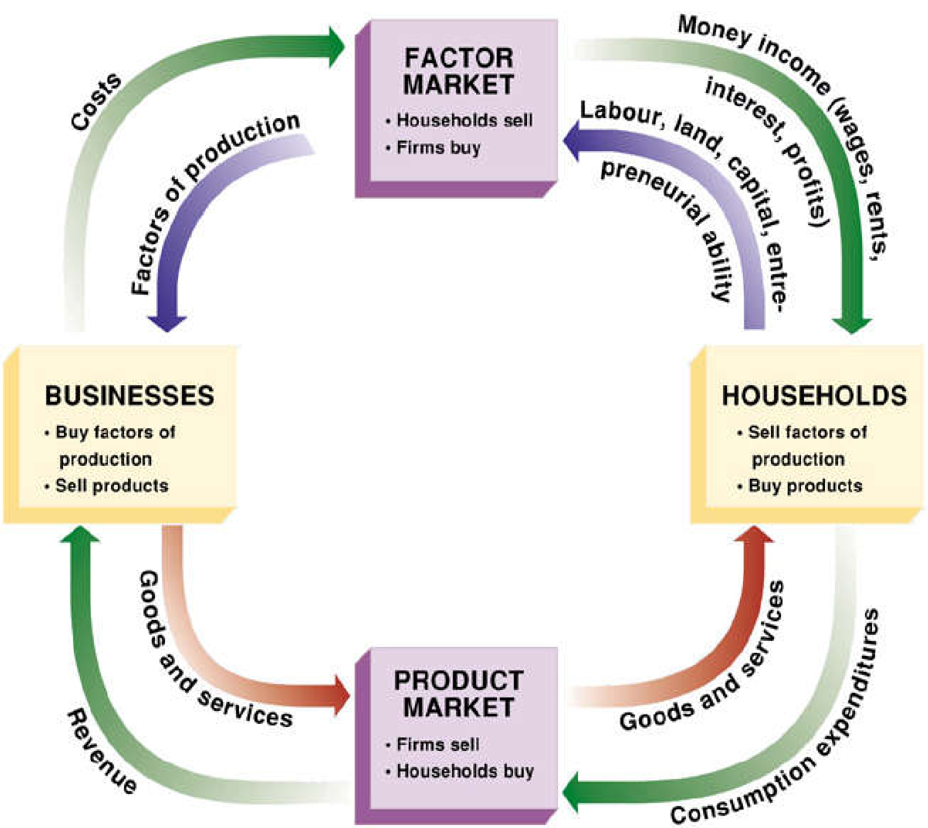


# Real Flows and Money Flows, cont'd.

## MONEY FLOWS

- Firms pay for the factors of production and households incomes for the services of factors of production.
- Households pay firms for the goods and services they buy which creates revenue for the businesses..
- These are the money flows.

- **Green flows are incomes**.
- **Red flows are expenditures**.



# Government in the Flow

The federal government's major expenditures are to provide

1. **Goods and services**
2. **Social Security and welfare benefits**
3. **Transfers to state and local governments**

– The federal government finances its expenditures by ***collecting taxes***.

– The main taxes are

1. Personal income taxes
2. Corporate (business) taxes
3. Social Security taxes

# Governments in the Circular Flow

● Households and firms pay taxes and receive transfers.

●Governments both provide and buy goods and services.