

# Sequoyah High Economics Study Guide

Sean W. Sharrock , BBA, M.Ed., MBA, Ed.S.

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## I. FUNDAMENTAL ECONOMICS CONCEPTS

### What is Economics?

The term “**economics**” is pretty flexible. It can be used when a bank decides to raise its prime lending rate or when a yam farmer decides to plant one more yam this year than he did last year. However, if you had to boil down economics to one definition, you would have something like:

**Economics:** a social science studying the allocation of **scarce** resources and goods.

### Scarcity and Opportunity Cost

**Resources:** resources are the inputs—such as labor, capital, entrepreneurship, and land—used by a society to produce outputs. These outputs—which are often finished products like hamburgers and cars—are called **goods**.

**Scarce:** short in supply. **Scarcity** is the noun form of the adjective **scarce**.

**Allocate:** to distribute according to some plan or system.

**Free resources,** resources like the air we breathe that are in abundant supply. Most of the nation’s resources, however, are scarce, even if they don’t appear to be at first. For instance, the United States has billions of trees within its borders, but that does not mean that all of these trees can be cut down without any consequences.

**Opportunity cost** is the value of the best alternative that could have been chosen but was not chosen.

### **STRATEGY BOX — Can’t Have it All**

Most economic situations can be discussed using the ideas of scarcity and opportunity costs. It doesn’t matter if the subject is the nation (like the United States) or a person like you or me, the basic decision-making processes center on deciding how to allocate the scarce resources at hand.

### The Four Factors of Production

1. **Land.** (Natural resources) Land is just what it seems to be, but it also includes any natural resources and man-made improvements that might be found on the piece of ground in question. Oil in the ground or gold in a creek bed are two things that would be included as part of the land, since they occurred there naturally. Buildings, fences, and roads are also considered part of the land since in most cases these improvements are bought and sold with the property.
2. **Labor.** (Human resources) Labor covers the mental and physical effort of human beings. Moving heavy boxes is an example of physical labor, while writing a mystery novel is an example of mental labor.
3. **Capital.** Capital resources are man-made creations (other than permanent improvements to the land) that are used to make goods or services. Capital is often divided into two categories: **physical and human**. **Physical capital** includes everything from the huge blast furnaces of a steel factory to the display shelves of a clothing store. These two man-made creations are used to produce a good (steel) or provide a service (apparel display). **Human capital** covers the skills and knowledge within a person's head. After thirty years in the steel industry, the plant manager's brain is filled with detailed knowledge about the steel-making process. The clothing store manager knows enough about fashion to place the right clothes out on the proper shelves. Both of these people contain valuable stores of human capital.
4. **Entrepreneurship.** (Management) The final resource is the hardest to define. Entrepreneurship roughly translates to "good business sense." It covers many areas, like the ability to:
  - Come up with new products that people will want
  - Organize and run a new business successfully
  - Manage employees effectively

### Allocation of Resources

Every economic system must answer three basic questions. How these questions are answered helps determine the kind of society that is created. These three questions are:

#### **1. What will be produced?** Every nation produces a unique set of goods and services.

The United States used to have a large manufacturing sector, but since the 1970s manufacturing has declined while the nation's service sector has grown. Jobs in white-collar services—such as software programming—have begun to replace jobs involved in manufacturing. Changing what a nation produces changes a nation itself. Since service jobs require more education, more Americans are enrolling in college than in previous decades. Factories have closed down in many places, and they have been replaced by commercial office buildings filled with employees in cubicles. The manufacturing jobs that used to be in the United States are now in countries like Mexico and China. This is changing society in these countries as well.

#### **2. How will it be produced?** "Private companies" or "The government" are two answers to this question. In the United States, private companies produce the majority of goods and services. In some socialist countries, or countries ruled by a dictator, the government produces the majority of goods and services. In these countries, the majority of the population works for the government.

#### **3. For whom will it be produced?** In other words, who is going to use the products produced by a society?

Answering this question will give you an idea of the breakdown of wealth in a country. If the majority of goods created are luxury goods and services, then you might have a country where a small number of people control most of the wealth. In this case a large, poor underclass may exist, producing goods and services that they themselves cannot afford. In industrialized nations like the United States, the majority of citizens are in the middle-income group, meaning they are moderately well off financially. There are also very rich people and very poor people, but they are proportionally less numerous than those in the middle-income group. So, in nations like the United States, a majority of goods and services are produced for the middle class.

*By applying these three questions to different countries, you can gain insight about these societies.*

### **THREE Basic Economic Questions: For Whom. How and What**

#### Characteristics of the U.S. Economic System

A **capitalist** society has private firms that produce and distribute most of the goods and services in the society. Money earned by firms and people in this society is reinvested into different markets. In a capitalist society, the government plays a no role. However, in the US we have a **mixed economy** which is a little **Communism** (total government control) and a little **capitalism** (no government control). Our government has agencies to regulate the safety of a product (such as a new prescription drug), but that government agency has no direct role in pricing, supply, or distribution. The government also has laws to insure that all citizens have a fair chance at employment regardless of race, creed, religion, or sex.

While the United States government seeks to insure equal opportunities for everyone, a capitalist society does **not seek an equal distribution of wealth**. It is almost inevitable that a capitalist society will generate some people with more wealth than others. **In a mixed economy, a government can influence markets using taxes and incentives. However, the government rarely takes a direct hand in the production and distribution of goods.**

#### **Four Major Economic Systems**

1. **Market (capitalism):** This is also called a **capitalistic** or **free-market** system. In a market system, **private** individuals and firms control all resources and the price and quantity of all goods are determined by the interaction of **demand and supply in unrestricted, open markets**. Ownership of property and goods is determined in the private sector and the government does nothing to interfere with any market. Instead, this system relies on the belief that a market system naturally leads to efficient results (called the “invisible hand”), which theoretically correct any inequalities in resource allocation. **The United States is very market-oriented, but it is not a purely capitalistic system.**
  1. One problem with market economies is that the accumulation of wealth can be uneven. **Under this system some people might become very rich while others might remain poor.** In the United States the government intervenes in the economy so that there is a mechanism to take care of the poor. Poverty, however, is not the only problem that may emerge if the government is completely uninvolved in markets.
  2. Other problems with unregulated activities include the elimination of competition (as monopolies would be free to exist and expand), inefficient public services, and outright theft.

#### **STRATEGY BOX — Free Enterprise**

Adam Smith used the phrase “invisible hand” in his 1776 book entitled *Wealth of Nations*. Even though his book is as old as the United States, the theories he proposes are still relevant in today’s economy.

#### **Also called a “PLANNED or CENTRAL ECONOMY”**

2. **Command:** A command economy is the opposite of a market economy. In this case the government commands all markets, determining what to produce, how to produce, and for whom to produce. Centralized planning committees take into account all the resources a nation has to offer (people, land, capital), and then set up an economic system to produce this predetermined mixture of goods and services.
  1. Since the government is in charge of everything, citizens should all receive equal amounts of basic goods and services. In theory, this means that there should be no problems with high unemployment or poverty. In a command economy, the government is supposed to provide for its citizens.
  2. A command economy may work in a simple society with only a small number of people. Yet today’s economies are often too complex for a committee to decipher.
  3. For this reason, command economies often produce a set of goods and services that is different from what its population really wants, leading to shortages of needed goods and surpluses of others. **Also, since there is no private ownership (only public ownership), people have little incentive to work hard.** Because the government manages all basic economic decisions in a command economy, personal liberties and freedom are not as great as they are in a market economy. The former USSR was an example of a command-dominated economy. The fact that this country collapsed economically has led many economists to question the long-term viability of command economies.
3. **Traditional:** A traditional economy maintains a status quo, deciding that if something worked for one generation, it can work for the next as well. Its monetary can be based on a barter structure. The static nature of a traditional economy can allow it to continue for long periods, but its inability to change can also stifle progress and economic growth. The global economy has rapidly changed over the past hundred years and this has left many traditional economies far behind.
4. **Mixed Economy:** While these three systems describe theoretical concepts of how an economy might function, in the real world most economies blend two (or even all three) of these systems.
  1. For instance, while China is considered a command economy, they have rapidly begun to incorporate many aspects of a market structure into their economy. Likewise, while the United States is considered to have one of the most capitalistic economies in the world; the government still intervenes in some markets.
  2. Therefore, there is a fourth economic system known as a **Mixed** economy. This is simply a way of naming an economy that incorporates aspects from different economic systems.

**Example Question:**

The nation of Welton needs to build a new dam to control flooding near its largest city. If Welton is a purely market economy, then these new improvements will MOST likely be left up to

- a. the government
- b. the individuals who are willing to pay for the new dam
- c. anyone who would benefit from the dam
- d. the owners of the property on which the dam would be built

This question highlights a problem with a purely market-based system, namely that public goods (like roads, bridges, and dams) are difficult to build without a government that sees to their production. C is not the correct answer because once a dam is built everyone benefits from it. While D might seem like a correct answer, if a property owner does not want the dam to be built he or she is under no obligation to build it. Ultimately, in a pure market economy individuals must be willing to pay for public goods (answer choice B), no matter who would benefit from the final product.

**II. MICROECONOMIC TOPICS**

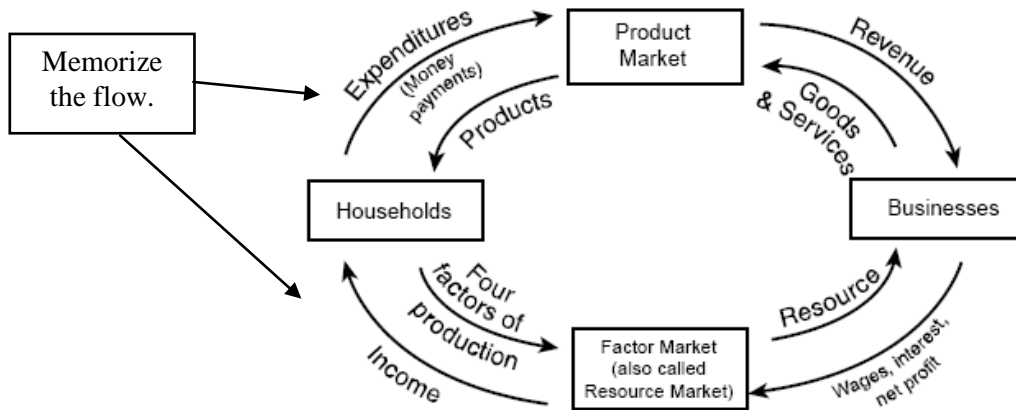
**Individual Consumers, Households, and Businesses**

The study of economics is usually divided into two large fields, microeconomics and macroeconomics.

- **Microeconomics** can be described as the study of people and businesses within a single market. This small focus—only one particular market—is one way microeconomics (literally “small economics”) is different from **macroeconomics** (“large economics”).
- **Consumers** are people who buy and use goods, and there are **firms** or **businesses** that make goods. How the demand of these consumers and the supply abilities of these businesses interact can often be shown using Price/Quantity graphs and supply and demand graphs. These graphs show how changes in supply affect both consumers and businesses, and vice versa. Since some goods are purchased for a family or collection of people, the term **household** is often used. Households purchase goods for use by anyone living in the group.

**Circular Flow of Goods and Resources**

The relationship between goods and services can be shown as a circular flow. The chart shows the exchange of goods/services and money payments between the **Factor Market (Resource)** and the **Product Market (Goods)**.



**STRATEGY BOX — Go With the Flow**

Study the circular flow diagram well, and be sure you understand each aspect of it. The diagram provides a simple and easy way to show how households and businesses interact, as well as how the product market and resource market are connected.

**Division of Labor & Specialization**

**Division of labor** is defined as dividing a complex procedure into small tasks, enabling workers to increase output through specialization. **Specialization** allows people to concentrate on a single activity or area of expertise. For an entire society, specialization helps boost overall productivity and leads to an efficient use of resources. For example, suppose one out of every 100,000 people needs the help of a brain surgeon. In the United States, this would translate to 3,000 people who need brain surgery. If the United States has enough specialized brain surgeons to help these people, then specialization will have helped save lives. These cured people could then go back to their jobs and continue to gain expertise in their own area of specialization.

An **assembly line** utilizes the benefits of specialization by allowing individual workers to concentrate on a certain task. As each of these workers gains experience in one particular part of the production process, the entire factory is able to produce more without increasing the number of workers they employ or the time each employee spends on the line, both of which are costs to the company.

### Career Opportunities

At some point in your life, you will probably find yourself looking for a job. Finding the right job is a complicated process, filled with questions like:

- 1) What would you like to do for a living?
- 2) Will you get paid enough to justify the job?
- 3) Will anyone actually hire you?

### **STRATEGY BOX — What's It Worth?**

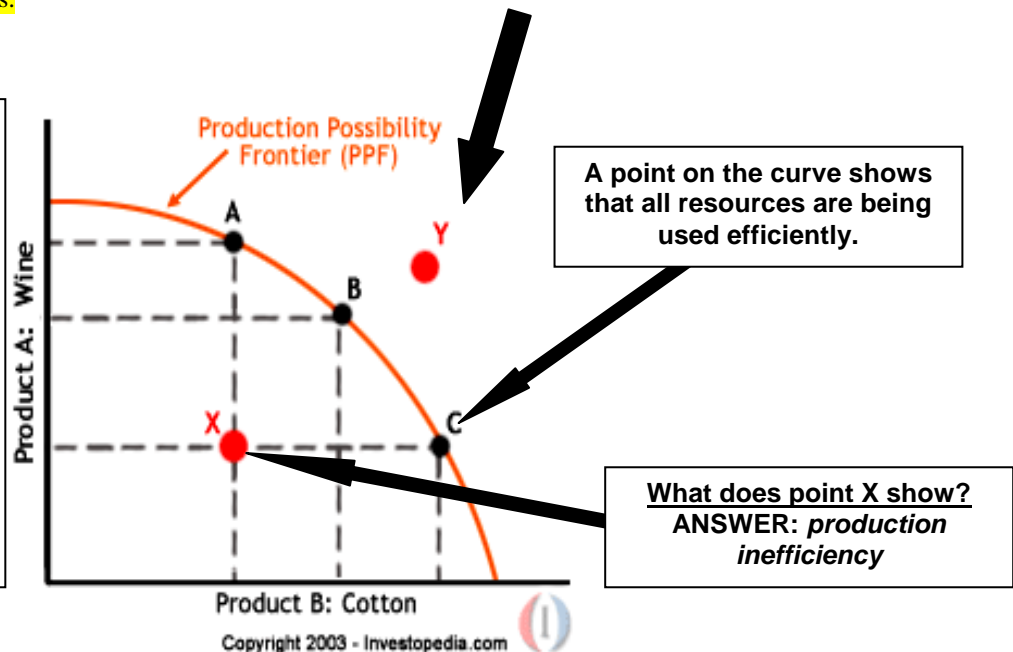
In general, the two factors that can boost the wages of a particular job are demand for that service and the training requirements needed for the job. High demand raises wages because it allows the limited supply of labor in that area to ask for more money and get it. Additional training (educational or job specific) also raises wages because there is an opportunity cost associated with this unpaid training, and this opportunity cost must be offset with a higher wage. Otherwise, no one will undertake the job.

### Production Possibilities Curve or Frontier

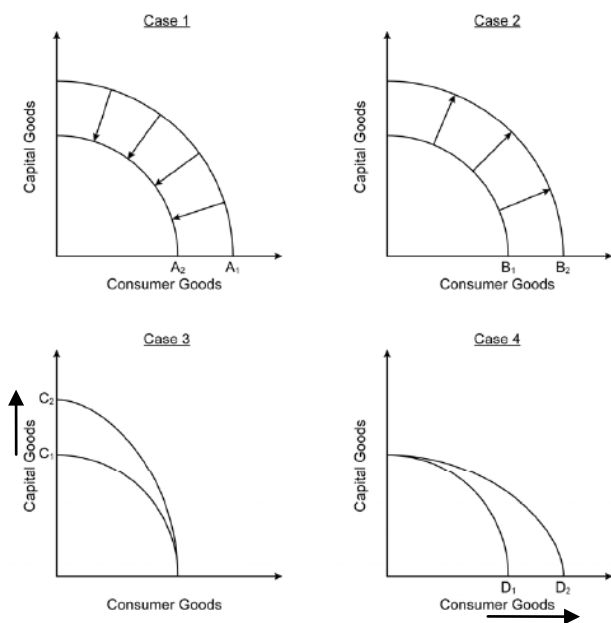
The curve represents all of the possible combinations of goods and services that an economy is able to produce with a fixed amount of resources. As shown in the following graph, most production possibilities curves are given for two products. Points A, B, and C represent the production levels reached with the use of the existing factors of production. All factors being used efficiently. At point X resources are being used inefficiently. At point Y, production of both goods are increased, one of the reasons of increased production can be the result of an increase in technology. Point Y can also be labeled **production impossibility** with existing resources.

#### Explanation of Graph:

- 1.) As more of Product A is made, then limited resources are used.
- 2.) So there are less resources to make the other good (Product B).
- 3.) Therefore, as you produce more of A you give up (or have an opportunity cost) of Product B.



Different PPC graphs can show how different variables affect an economy.



A natural disaster such as a hurricane can cause **Case 1** to a local economy. Here, both capital (buildings and equipment) and labor are lost due to the calamity; since the region's production inputs are reduced, so too is its PPC, moving from **A<sub>1</sub>** to **A<sub>2</sub>**. The region may recover over time, but the immediate effect of the disaster is to move the entire PPC inward.

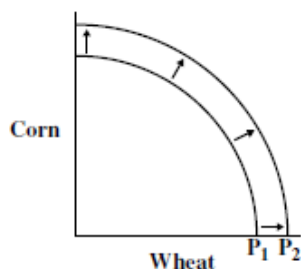
Conversely, consider a local area with a booming economy; people are moving there in droves (providing labor), and businesses are investing in the areas to take advantage of the increased number of consumers and potential employees. This would lead to a condition like **Case 2**, where the entire PPC shifts outward.

Now imagine a small town has just received a large economic development grant from the federal government. The amount of capital available to this economy has greatly increased while its labor pool remains unchanged, so a movement like **Case 3** occurs. The new PPC, **C<sub>2</sub>**, shows how the investment will create an enhanced ability to produce capital goods. Lastly, increases in

labor inputs (such as a higher number of college graduates) will lead to **Case 4**. Here, the boost to the labor force allows the PPC to shift from **D<sub>1</sub>** to **D<sub>2</sub>**.

**Example Question:**

**Farm Production Possibilities Curve**



**What BEST explains the shift of the production possibilities curve from P<sub>1</sub> to P<sub>2</sub>?**

- a. improvements in agricultural technology
- b. inflationary increases in process costs
- c. less supply of labor
- d. higher costs of producing wheat

**Supply and Demand**

Understanding the laws of supply and demand is central to understanding how the capitalist economy operates. Since we rely on market forces instead of government forces to distribute goods and services there must be some method for determining who gets the products that are produced. This is where supply and demand comes in. By themselves the laws of supply and demand give us basic information, but when combined together they are the key to distribution in the market economy and most important **Price**.

**What is Demand?**

In economics, we need to use terms a little more carefully than they are sometimes used in ordinary discussions. In general use, "Demand" is a word that can have more than one meaning, but in microeconomics we define it more carefully so that it has only one meaning. Here is the definition:

**Demand is comprised of two things:**

1. Ability to pay
2. Willingness to pay

- **Definition:** Demand is the relationship between price and quantity demanded for a particular good and service in particular circumstances.
- For each price the demand relationship tells the quantity the buyers want to buy at that corresponding price. The quantity the buyers want to buy at a particular price is called the Quantity Demanded.
- The key point is to distinguish between demand (the relationship) and quantity demanded. That distinction is important for microeconomics, although people often do not make it in ordinary discussion.

The demand relationship expresses that willingness and ability for the whole range of prices. To say that a person has a demand for a particular product is to say that the person has money with which to buy and is willing to exchange the money for the good. **People will not demand what they do not want or need, but a want or a need not backed by purchasing power is not a demand.** Similarly, it is not enough that the suppliers possess the good or (the capacity to perform) the service.

Most of us have experience living in the market economic system, and that makes economics seem like a common-sense field -- but sometimes that common-sense feel can be deceptive. **People sometimes use the term "demand" ambiguously - as if "demand" were the same thing as need. But it is not. Need, without purchasing power will not create effective demand in the marketplace.** Economists sometimes stress this point by using the term "effective demand" in place of simple "demand."

**Remember: when we speak of "demand" we usually mean the *entire demand relationship*, that is, the entire demand curve or table. By contrast, the "quantity demanded" is the *particular point* on the demand curve, as in Figure 2 below, or the quantity in a particular line of the table.**

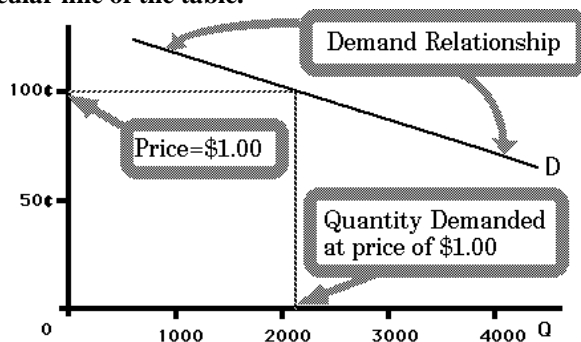


Figure 2: Demand Terminology

### Some concepts that further define Demand

What factors alter your desire, willingness and ability to pay for products? Some factors include consumer income; consumer tastes the prices of related products like substitutes for that product of items that may complement that product.

**Marginal utility** - extra satisfaction a consumer gets by purchasing one more unit of a product.

**Diminishing Marginal Utility** can be explained as the more of an item one buys the less eager one is to buy more. Think of diminishing marginal utility this way. It is a hot summer day and your sweating bullets. You come across a lemonade stand and gulp down a glass. It tasted great so you want another. This second glass is marginal utility. But now you reach for a third glass. Suddenly your stomach is bloated and you're feeling sick. That's diminishing marginal utility!

When there is a change in amount purchased (tied to demand) due to lower prices and surplus spending money it is called the **Income effect**. Income effect basically happens when salaries are on the rise. The amount of money that consumers have available to spend is called **purchasing power**. **Income is a determinate of demand (more on this later).**

**Elasticity of Demand** can be defined as the degree to which changes in the price of a good/service will affect the quantity demanded. Demand can either be **elastic** or **inelastic**. If a good has many substitutes then it is said to have elastic demand because if the price goes up then demand will change greatly simple due to the fact that customers will buy the substitute.

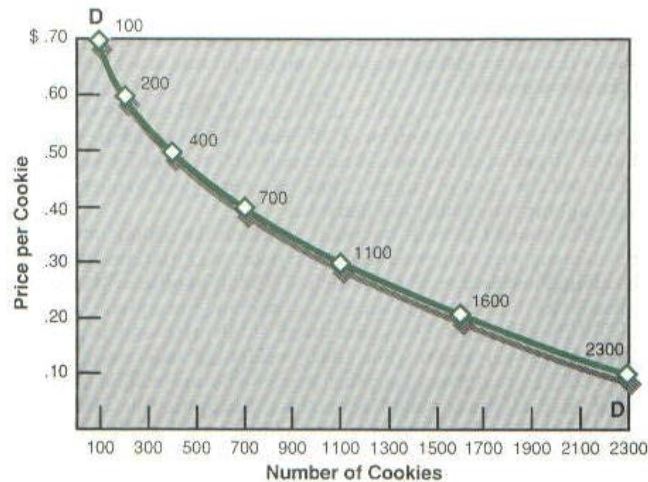
**Another economic phenomenon related to demand is Substitution Effect. This states that as prices drop consumers will buy more than usual at the expense of a different product.** Take a sale at the mall for example. If jeans are on sale for a great price consumers will by extra jeans even if they had previously planned to buy something else. This is that great deal you just cannot pass up. What would the opportunity cost be? That item you passed up and substituted for.

### The Law of Demand

*Quantity demanded in inversely proportional to price.*

**Simply put, the higher the price, the lower the demand and the lower the price, the higher the demand.**

Economists also like to look at things graphically. It enables us to see the quantity and price on a limitless scale. To do this we plot what is known as a **demand curve**. The price is always on the vertical axis and the quantity is always on the horizontal axis. If we were to plot data from typical demand schedule and draw a demand curve for the cookies it would look like this:

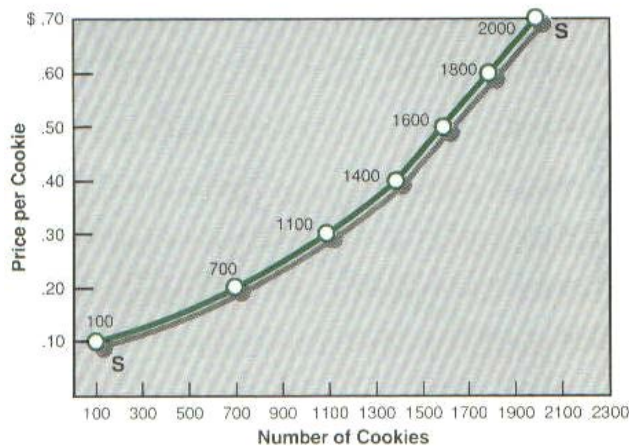


### The Law of Supply

*Quantity supplied is directly proportional to price.*

**Simply put the higher the price, the higher supply and the lower the price, the lower the supply.**

Clearly the law of supply is the opposite of the law of demand. Don't these both make sense to you? Consumers want to pay as little as they can. They will buy more as the price drops. Sellers, on the other hand, want to be able to charge as much as they can. They will be willing to make more and sell more as the price goes up. This way they can maximize profits. If we were to take data from a supply schedule plot the information on a **supply curve** would look as follows:



**The primary motivator for suppliers/producers is make a profit, thus they are motivated to produce more at higher market prices.**



### Market or Equilibrium Price

Now that we have covered both demand and supply we have to combine both together. The place where what sellers are willing to sell for and buyers are willing to buy for is called **market** or **equilibrium price**. This is the price the product will sell for.

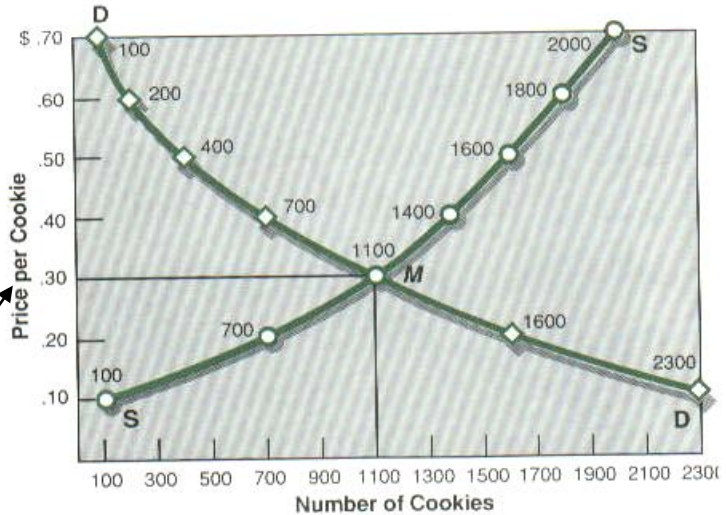
To figure out price one has to law the supply and demand next top each other.

#### *Supply and Demand of Chocolate Chip Cookies*

When we then plot and draw both curves together we are able to see the market price of the product.

Supply/Demand Schedule

Students will buy	At a price of	Sellers will offer
100	.70 cents	2,000
200	.60	1,800
400	.50	1,600
700	.40	1,400
<b>1,100</b>	<b>.30</b>	<b>1,100</b>
1,600	.20	700
2,300	.10	100



The **market clearing price** (*equilibrium price*) for cookies in this graph is 30 cents.  
The quantity sold and bought is 1100 cookies.

### Price Determination

You have already seen how the interaction between a producer's supply curve and consumers' demand curve can determine an equilibrium price and quantity. Prices, however, are rarely stable over a long period of time. **Many factors can affect the supply or demand curves within a market. Here are some of the factors that can affect the price and quantity of a good.**

#### Factors that Determine Equilibrium Price

The Determinates of Supply: G.O. S.P.I.T.

1. **Government Policies:** Government rules can influence the amount producers produce: (*ex: decrease in taxes = produce more*)
2. **Outlook (Producer Expectations):** How the supplier interprets the future determines their production activity today.
3. **Size of Industry (# of Producers):** The more suppliers of a product will naturally shift the supply curve to the right. As the number of producers decrease, the curve will shift to the left.
4. **Prices of Related Product Lines:** Suppose a company is making leather suitcase and leather shoes. The price for leather suitcases rises, then the result could be to increase of resources to produce suitcases thus decreasing the resources used to supply shoes
5. **Input Costs:** If costs to produce goods rise, the supply produced will decrease
6. **Technology:** Most often the supply will increase because it is cheaper to produced the product

The Determinates of Demand: P.O.I.N.T.

1. **Price of Related Goods (Complementary and Substitute Goods):** Goods that are used together and goods that satisfy the same needs as the original good changes then demand for the other good will shift the demand curve
2. **Outlook (Consumer Expectations):** Not to be confused with taste and preference. How consumers predict the market
3. **Income:** Fluctuations in income often cause a consumer's demand to change.
4. **Number of Consumers:** (Also called market size) The larger the market the demand curve will naturally shift to the right, the smaller to the left.
5. **Taste and Preference:** Sometimes what is fashionable or chic determines the demand for a good.

#### **STRATEGY BOX — How to apply the Determinates of Supply or Demand?**

Memorizing the determinates can help, but is better to apply some common sense. Just think of the determinates as factors that affect consumers and produces in positive and negative ways. If the determinate sounds like it would hurt then the consumer (or producer) will buy less (or producer will

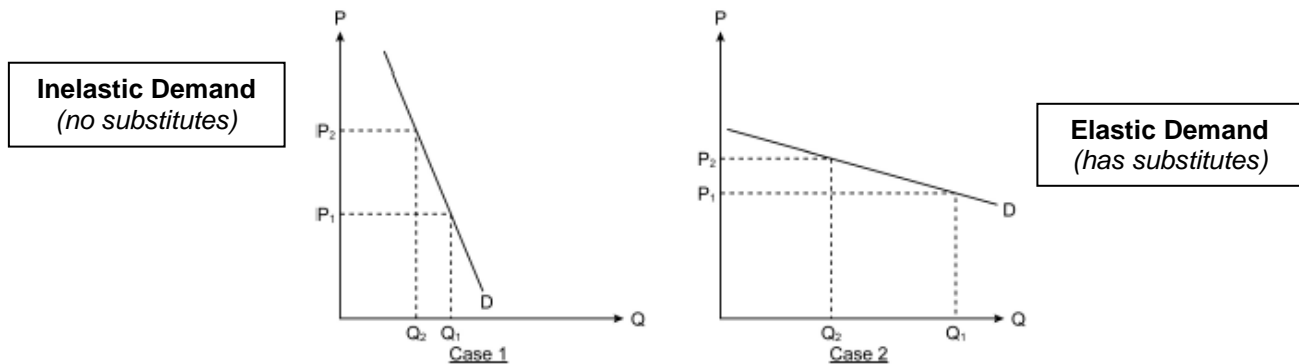
### Why are Prices Important in an Market Economy

Prices are key ingredients in our economy because they make things happen. If buyers want to own some items badly enough, they will pay more for them. When sellers want to sell some items badly enough, they will lower their prices. Prices play such an important role in economic life that the United States is often described as a price-directed market economy. Let us see why.

- 1. Prices Act as Signals to Buyers and Sellers.** One of the things that prices do is carry information to buyers and sellers. When prices are low enough, they send a "buy" signal to buyers (consumers), who can now afford the things they want. When prices are high enough, they send a "sell" signal to sellers (retailers), who can now earn a profit at the new price.
- 2. Prices Encourage Efficient Production.** Prices encourage business people to produce their goods at the lowest possible cost. The less it costs to produce an item, the more likely it is that its producers will earn a profit. Firms that are efficient will produce more goods with fewer raw materials than firms that are inefficient. Producers strive for efficiency as a way of increasing their profits. While these efforts are in the best interests of the sellers, all of us may benefit because we are provided with the things we want at lower costs.
- 3. Prices Determine Who Will Receive the Things Produced.** Finally, prices help to determine who will receive the economy's output of goods and services. The price that a worker receives for doing a job is called a wage. The amount of this wage determines how much the worker has to spend. What the worker can buy with those wages will depend, in turn, upon the prices of the goods and services the worker would like to own.

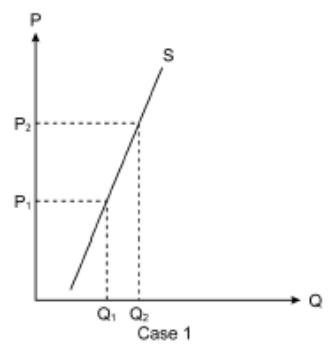
### Price Elasticity

One additional note about prices: economists occasionally talk about price elasticity. Elasticity refers to the percentage change in quantity divided by the percentage change in price, and it can refer to both supply and demand. The main idea is to track how much a change in price affects a change in quantity, and vice versa. Visually, the following graphs can help show the main cases of elasticity.

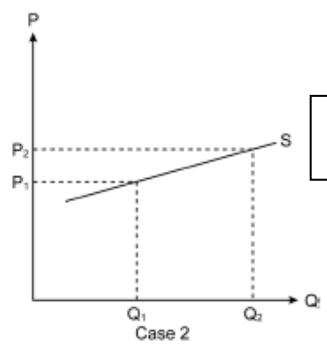


In Case 1, price increases greatly, from  $P_1$  to  $P_2$ . However, consumers still desire the good provided, so while quantity demanded is diminished, it is only a small drop from  $Q_1$  to  $Q_2$ . As the change in price is greater than the change in quantity demanded, the demand curve for this good is said to be inelastic. Basically reflecting the fact that the consumer has fewer choices in the market place and is forced to continue buying some of the product. In contrast, a small change in price in Case 2 lead to a great decrease in the quantity demanded. Since this good is very sensitive to changes in price, this good has a demand curve that is elastic. Basically reflecting the fact that the consumer has more choices in the market place and has the option to select another product which results in a drastic change in the quantity purchased.

**Inelastic Supply**  
(expensive to make)



**Elastic Supply**  
(inexpensive to make)



Elasticity in supply curves works under the same principle as elasticity in demand curves.

In Case 1, a larger change in price leads to a smaller change in quantity, so the supply curve in Case 1 is inelastic. This is because the barriers to produce additional units is very **high** for the producer so they are more likely to produce **not** as many even though the price (incentive) goes up. In Case 2, a smaller change in price leads to a greater change in quantity, showing that the supply curve in Case 2 is price elastic. This is because the barriers to produce additional units is very **low** for the producer so they are more likely to produce many **more** when the price (incentive) goes up.

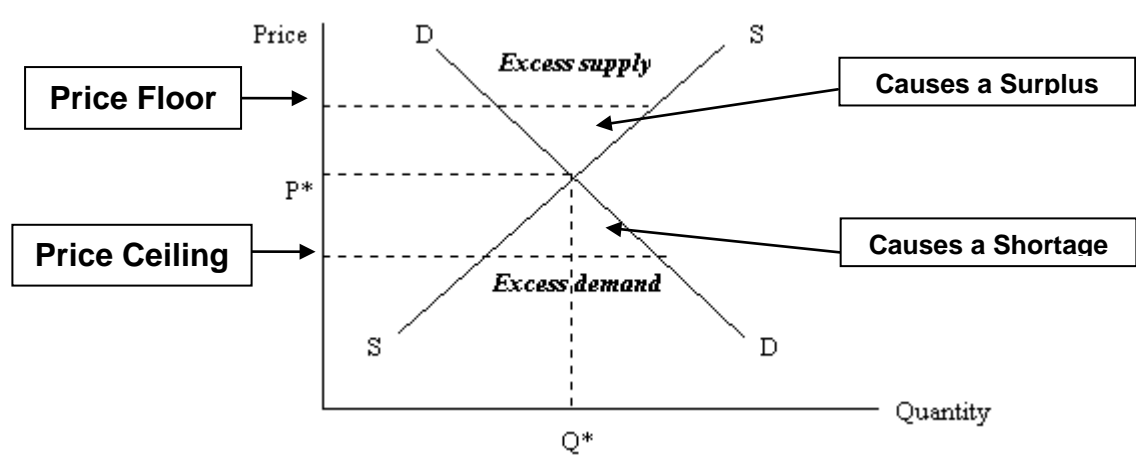
**Price Controls: Floors & Ceilings**

Price can also be affected by outside forces such as government legislation. For political reasons, a government might set a price floor or ceiling on a good or service.

1. A **price floor** sets a minimum price for which a product can be sold. Sometimes this minimum is never reached, making the price floor irrelevant. **TO BE EFFECTIVE, IT MUST BE SET ABOVE EQUILIBRIUM PRICE.** However, sometimes the situation could lead to surpluses. Some examples are farm subsidies, minimum wage
2. A **price ceiling** is similar to a price floor, although it creates a *maximum* price at which a good can be sold. **TO BE EFFECTIVE, IT MUST BE SET BELOW EQUILIBRIUM PRICE.** Excess demand would thus create a shortage of goods. An example would be rent control.

The following graph will indicate how both *surpluses* and *shortages* would occur.

**What will a price ceiling cause? How about a price floor?**



## Types of Business Organizations

There are many different types of business organizations, and each type has its advantages and disadvantages. The following list provides a brief review of three common types of business organizations.

### Three Basic Business Organizations:

1. **Sole Proprietorship: A sole proprietorship has a single owner.** Usually this means just one person is the owner/proprietor, but occasionally it might be a single family that retains complete ownership. **The proprietor controls all the aspects of his or her business, from the factors of production to the finished product.** By giving a single person all the important decision-making functions and power, sole proprietorships are often able to adapt their business practices quickly.
  - This flexibility does not prevent a proprietor from making *bad* decisions. However, there are disadvantages with having all the power of a company in the hands of one person.
  - Many restaurants are sole proprietorships. The unique menu and décor of such a restaurant can reflect the individual tastes of the owner. Changes in the menu are made by the owner, as are any decisions regarding expansion or capital improvement. **OWNERS HAVE ALL THE DECISION POWER. HOWEVER THEY HAVE UNLIMITED LIABILITY, MEANING THEY ARE TOTALLY RESPONSIBLE FOR ALL COSTS OF THE COMPANY.**
  - If any capital repairs are to be done, the sole proprietor must pay for them, either out of the company's profits or the owner's own pockets. The fact that all money for improvement or repair must come from the sole proprietor tends to limit the amount of capital sole proprietorships can put back into a business.
  
2. **Partnerships: A partnership divides up the risk and reward among a group of people.** While some partnerships are as small as two people (with each sharing 50% of the risks and rewards), there is no limit to how large a partnership may be. Many law firms operate as partnerships. A group of lawyers can divide the cost of administrative work amongst themselves, thereby reducing the cost that each of them would accrue by having a personal assistant, copy machine, law library, and so forth. **EACH PARTNER HAS LIMITED LIABILITY, MEANING THAT EACH PARTNER SHARES IN THE COSTS OF THE COMPANY.**
  - After paying out all the costs, the partners can then divide any profits amongst themselves equally, or in some agreed upon proportion. Sharing this reward leads to smaller individual portions, but it also means a reduced chance of bankruptcy or failure. It is also easier for a partnership to accrue investment capital, since each partner can agree to pay a percentage in order to arrive at the needed amount. **EASIER THAN SOLE PROPRIETORSHIP TO SETUP BECAUSE BOTH OWNERS PUT IN THEIR MONEY.**
  
3. **Corporations:** Corporations issue stock, and anyone who owns stock in a company owns a portion of that corporation. **Stockholders meet annually to determine a board of directors** and this group of people is responsible for guiding the company in the long run. **A president or chief executive officer (CEO)—a person often hired by the board of directors—makes the major short-run business decisions.**
  - The corporate structure has many advantages. **One big advantage is the ease with which corporations are able to raise capital for investment by selling stock. This is a simple way to gain large amounts of money that can be spent on acquisitions or new business ventures. A second advantage is that individual shareholders (people who own the corporation's stock) are not financially responsible for any corporate debt or bankruptcy (very little liability). If the corporation goes under, the shareholders do not.** Of course, in that circumstance all the stock owned by the individual becomes mostly worthless.
  - These two advantages (and others) have helped turn many corporations into multibillion-dollar businesses with operations all over the globe. **Yet corporations do have their downsides. In large corporations, a massive bureaucratic structure leads to slow decision-making processes and some wasteful spending. Most large corporations simply do not react swiftly in the business world.**
  - Corporations rarely go out of business. They generally merge with other corporations. Two types of mergers are Vertical and Horizontal mergers.
    - **Vertical Mergers:** buying a resource provider (Ford buying a tire or steel manufacture).
    - **Horizontal Mergers:** buying a company that is in the same market (ex: Ford buying GM).

### III. MACROECONOMIC TOPICS

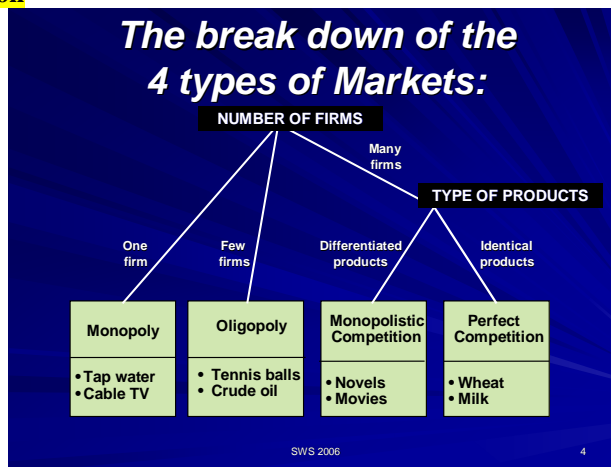
The study of economics is usually divided into two large fields, microeconomics and macroeconomics.

- **Macroeconomics** can be described as the study of nations within a global market. This large focus—in many markets—is one way macroeconomics (literally “large economics”) is different from **microeconomics** (“small economics”).

#### Types of Market Structure

The structure of a market describes many of the important features of that market. These features might include:

1. **number of firms in the market**
2. **barriers of entry, or the ease in which companies can enter or exit the market**
3. **products created, and whether or not these products are identical, very similar, or different**
4. **level of competition**



There are four basic market structures that you should be prepared to see:

#### **1. Monopoly:**

- Number of firms: one
- Barriers to entry: very, very high, if not insurmountable
- Products: usually just one
- Competition: none
  - Monopolies are very rare, but they do exist. Some monopolies are created when a firm gains a patent on a certain drug or machine, granting them the exclusive right to make that product. **Other times, governments create (and then regulate) monopolies in the interest of efficiency. Your local water company is a good example of a government sanctioned monopoly.** Running a water distribution plant requires a huge amount of capital startup, which makes it expensive for firms to get started (called a “barrier to entry”). Having a single water company is more cost effective than having two duplicate water companies running side by side because two water companies would need to lay separate pipes to individual homes. One water company, on the other hand, can cut costs significantly by running one set of pipes throughout their entire service area.
  - **Natural monopolies** are monopolies such as water and electricity providers. The government agrees that it is cheaper for just one firm, such as the Tennessee Valley Authority (electricity provider), to be the only provider due to the extreme cost involved in producing and providing electricity.
  - **Monopolies are not always very favorable to the consumer. Since there is no competition, monopolies can decide on a price that maximizes their profits.** This makes a monopolist a **price maker (price fixer)**, a company that has control over what it wants to charge people. This often leads to higher prices as well as some shortages, as demand for a good usually exceeds the amount the monopolist is willing to supply.
  - Monopolies can form after **horizontal mergers** which involves to firms in the same market coming together.

## 2. Perfect Competition:

- Number of firms: **unlimited**
- Barriers to entry: none
- Products: a single product that is similar throughout the market
- Competition: **unlimited**
  - **Perfect competition is the opposite of monopoly. Here, any firm can get into the market at very little cost.** Suppose there was a market for dandelions. Growing dandelions requires little start-up cost. All you need are dandelion seeds, soil, water, and some sunlight. There is little difference between one dandelion and another, so the market has a homogeneous product.
  - In perfect competition, firms will keep entering the market as long as it is profitable. If a single dandelion sells for 5 cents and it costs 3 cents to grow one, then firms will keep entering this profitable market, increasing supply and driving down costs. When dandelions cost 3 cents to grow and sell for 3 cents, the market is in equilibrium and firms will stop entering the market.
  - Firms in a perfectly competitive market are **price takers**. They have no control over their own prices, which are determined by the market. In other words, no one will buy an overpriced dandelion. Why should they? A 4-cent dandelion is the same as the 3-cent one, so here is no reason to spend that extra penny.

## 3. Monopolistic Competition:

- Number of firms: **a large number**
- Barriers to entry: low
- Products: **Products are similar but not exactly alike from one firm to another (product differentiation).**
  - Competition: Firms must remain aware of their competitor's actions, but they do have some ability to control their own prices.
  - Monopolistic competition takes its name and its structure from elements of monopoly and perfect competition. **The key idea to understanding monopolistic competition is that firms sell products that are similar, but not exactly alike. Consider hand soap. Essentially, all hand soaps are the same. Yet firms can create a brand identity that separates their hand soap from their competitor's. This brand identity can be formed through packaging, product support, and especially advertising.** If effective, consumers will positively identify a certain brand and purchase it even if hand soap costs a little less.
  - The brand loyalty of consumers gives firms some control over their own prices. This control is not great, though. A hand soap that costs fifty dollars more than any other brand will probably not be purchased because most soap are easily substituted for one another.

## 4. Oligopoly:

- Number of firms: **few, often somewhere between 2-12 firms controlling a majority of the industry**
- Barriers to entry: high
- Products: varies
- Competition: All firms are very aware of each other's prices.
  - **Whenever a few firms dominate an industry, you have an oligopoly.** While there aren't many firms in any oligopoly, each firm is keenly aware of each other's prices and behavior. If Firm A lowers prices, it often does so expressly to take business from Firm B.
  - Firm B must either respond by lowering prices, or take some other action if it does not want to lose market share to Firm A.
  - **This market is characterized by the fact that companies work together to set prices, otherwise known as COLLUSION.**
  - Some oligopolies are fiercely competitive, such as the soft drink industry or the airline industry. In other oligopolies, firms work together to set price and quantity. Since these firms effectively control a market, this cooperation creates a kind of monopoly called a **cartel**.
  - **Cartels can create artificially high prices and reduced quantity in order to maximize profits, but they are often illegal and very difficult to maintain.**

### STRATEGY BOX — What's the Theory?

Monopoly and perfect competition are exceptionally rare market structures; however, they represent important economic theories. Fragments of monopoly and perfect competition can be seen in monopolistic competition and oligopoly, two very common market structures. Understanding the two extreme cases is essential to understanding the two more common market structures.

### Aggregate Supply and Demand

Aggregate supply and demand is a macroeconomic idea that parallels supply and demand in microeconomics. Demand for all goods and services within a nation combines to form **aggregate demand**, while the supply of all goods and services within a country is its **aggregate supply**

#### STRATEGY BOX — Aggregate Supply and Demand

Shifts in aggregate demand and supply can signal changes in the economy. If the aggregate demand curve shifts to the left, then real GDP is falling. This could mean a recession. If aggregate supply shifts to the right, then the economy is producing more goods and services at the same price level. This could signal improvement in production ability brought about by technological and capital improvement

### Macroeconomics/Key Economic Indicators

When you go for a checkup, the doctor looks at several indicators—heart rate, blood pressure, and body temperature—to help determine your basic level of health. **The general economic health of a nation can also be judged by looking at several economic indicators, which include the Gross Domestic Product (GDP), the Consumer Price Index (CPI), and the unemployment rate.** A quick glance at these three factors can often tell you how an economy is doing.

As stated earlier, the GDP is the market value of all goods and services produced by a country over a specific period of time, usually a year. There are different methods of measuring GDP, but the most common one is known as the expenditures approach. This approach adds up all the money spent by a country's consumers, firms, and the government, and then factors in net exports. The formula for GDP can then be written as:

- **Gross Domestic Product = Consumer Expenditures + Business Investment + Government Expenditures + Net Exports**
- **$GDP = C + I + G + X_n$**
- The Net Exports part ( $X_n$ ) is needed to take into account the amount of money foreigners spend on our goods and services as well as the amount we spend on foreign goods and services. Foreigners buying our goods should be part of GDP, while money we spend on foreign goods is not part of the **Gross Domestic Product**.
- Net Exports = (American goods and services bought by foreigners) – (foreign goods and services bought by Americans) OR Net Exports = exports – imports

Tracking GDP over a period of years can tell you if a nation's economy is expanding or contracting. If GDP rises by 4% from Year 1 to Year 2, then the economy appears to be doing well. However, inflation can distort GDP growth, since a rise in the average price level would increase GDP. If inflation between Year 1 and Year 2 was very high, then GDP might not have grown at all. The higher prices caused by inflation may have caused the 4% shift, but the economy was actually unchanged.

For this reason, GDP is often discussed as **Real GDP**. A base year is used, and a **price index** (called the **GDP deflator**) is used to measure all future GDP in terms of the base year prices. Ideally, using base year prices will eliminate any distortions caused by price changes and allow real GDP to accurately reflect changes in the nation's economy and many other consumer products.

**REAL GDP IS ADJUSTED FOR INFLATION, NOMINAL GDP IS NOT ADJUSTED!**

The **GDP Deflator** (also referred to as the **CPI**) is a means by which we can monitor inflation (and deflation). The **Consumer Price Index (CPI)** takes a hypothetical **basket of goods** and services purchased by a typical household. It then tracks changes in the amount of money required to purchase this same basket of goods and services year after year.

The CPI is always figured with a base year of 100. For example, if the CPI for a certain year is 122, then inflation has driven prices up 22% since the base year. For a simplified example, usually a household's basket of goods consisted of milk, paperback books, furniture and numerous consumer goods. See below...

Quantity in Year 1	Year 1 Price	Cost
300 gallons milk	\$1.20	\$360
50 paperback books	\$5	\$250
2 plastic sofas	\$110	\$220
Total cost of Basket in Base Year		\$830

Quantity in Year 2	Year 2 Price	Cost
300 gallons milk	\$1.80	\$540
50 paperback books	\$5.50	\$275
2 plastic sofas	\$100	\$200
Total cost of Basket in Year 2		\$1,015

} Market Basket Example

Note that the quantity of each good purchased does not change from year to year. This is true when creating a CPI. This is not exactly true in the real world, since consumers might substitute another good for a good whose price increased too much. For this reason, CPI sometimes overstates the increase in price levels.

Consider prices in the base year to have a standard value (known as an index) of 100. To find the increase in price in year 2, you must divide the Year 2 basket cost by the base year basket cost, and then multiply by 100 to find the index.

$$\text{CPI} = (\text{Year 2 basket cost} / \text{base year basket cost}) \times 100$$

$$\text{CPI} = (1015 / 830) \times 100$$

$$\text{CPI} = (1.22)(100)$$

$$\text{CPI} = 122$$

Compared to a base-year price of 100, prices in Year 2 were 122, or 22% higher. That's a great deal of inflation. You can see that the change is mostly attributable to the high increase in the cost of milk, whose price increased by 50%.

Using a CPI is one way to calculate the change in price level in an economy, but it is not the only way this can be done. Another method employs the concepts of aggregate supply and aggregate demand. After explaining these two ideas, you will then see how they can be used as economic indicators.

### Forms of Unemployment

1. **Structural:** Structural unemployment occurs when you have job skills that no one wants, or when a company wants to hire somebody but can't find anyone who has the necessary requirements. Suppose you worked at a company that made old-fashioned phones with dials. Almost no one wants these phones anymore, so once your company closes; there is no place for you to use your old-fashioned phone-making skills. At the same time, suppose that a local company needs people who can design computer networks, but no one in the community has experience in this area. This type of mismatch is a typical example of structural unemployment.
  - Learning new skills or moving to a different location can reduce this type of unemployment. For instance, another nation might need old-fashioned dial phones, so you could move there and have a much better chance of finding a job that matches your skills.
  - Or you could stay where you are and take some computer networking classes. This might give you the training needed to apply for a job as computer networking technician. In any case, this is considered the most serious type of unemployment because it is usually the most difficult to address. After all, moving somewhere else might not be very easy (especially if you don't have the money to pay for the move) and training for a new job is costly and often takes a long time.
  
2. **Frictional (in-between jobs):** Unemployed people don't always take the very first job they can find. They often wait in order to find a job that fits their talents and preferences. While they search for a job that is a good fit, these people are frictionally unemployed.
  - Overall, frictional unemployment is not entirely bad for an economy because it gives people time to find a job that suits their needs.



3. **Seasonal:** If you are a professional snow remover in New York, you know what seasonal unemployment is. Certain jobs have peak periods and periods where there is little work. A professional snow remover in New York would be seasonally unemployed for much of the year, only finding work when it snows. (It would be a good idea to learn a skill that would be useful during the warm months of the year.)
4. **Cyclical:** Most economies encounter cyclical periods of growth and recession. During boom years, unemployment drops dramatically as companies hire new workers to match the higher demand. However, boom periods often overreach, and these are followed by recessions. People who are laid off as a result of a contracting economy are cyclically unemployed.
  - *Cyclical unemployment occurs during a recession (the low part of the business cycle).*

### Business Cycles & Inflation

Any nation experiences the business cycle. **You can learn about how inflation (a rise in the price level) can affect the economy throughout these expansions (growth) and contractions (recessions).** Suppose that the economy is in a recession and unemployment is high. However, things start to pick up and the economy enters a period of expansion, aggregate demand will increase.

**If the increase is too rapid inflation could occur. Two causes of inflation are:**

1. **Demand-Pull Inflation:** This type of inflation can occur when prices have increased, but real GDP has not changed. **Consumer spending is the cause of rising prices.**
2. **Cost-Push Inflation:** Inflation can also occur in other ways. Suppose an economy is at equilibrium and suppose that a series of tornadoes and hurricanes devastate numerous sectors of this economy. This would cause aggregate supply to fall, as ruined businesses are busy rebuilding. In this event, the nation's aggregate supply falls. The result would be a rise in prices and real GDP falls. This event is called **Cost-Push Inflation**.

### **2 WAYS INFLATION CAN OCCUR: DEMAND-PULL & COST-PUSH**

**A little inflation is not very harmful to an economy. Consumers with large loans actually benefit during periods of inflation, since this reduces the relative cost of the loan (Banks, on the other hand, would suffer for the same reason).** As long as a person's wage increases proportionally to the inflation, then the consumer will be no better or worse off. **However, wages are often fixed by a contract, so a person with a fixed wage might not be able to consume as much as inflation continues, since his or her relative spending power is reduced.**

Some contracts take this into consideration by having a **cost-of-living adjustment, (COLA)** which shifts a person's wage up to reflect increases in the price level.

If inflation is expected, consumers can plan for a slight increase in price and make decisions accordingly. Trouble occurs when inflation rises too sharply. This reduces the value of saved money, causing people to spend all the cash they can before it devalues. In the rush to spend their money, people often become less productive, reducing a nation's aggregate supply. This, of course, can lead to more inflation.

Inflation that spirals out-of-control can seriously damage an economy, which is why governments often take steps to prevent this occurrence. In the United States, the government works to control inflation through the Federal Reserve Bank's Monetary Policy and Congress' Fiscal Policy.

### Final Notes on Inflation

- Individuals on **FIXED INCOMES** (like retired folk) are hurt most by inflation.
- **Inflation benefits the person getting a loan and hurts the bank that gave to loan.** The bank is hurt because when they get the loan back the money will buy less since prices have risen.

### Fiscal Policy and the Federal Government

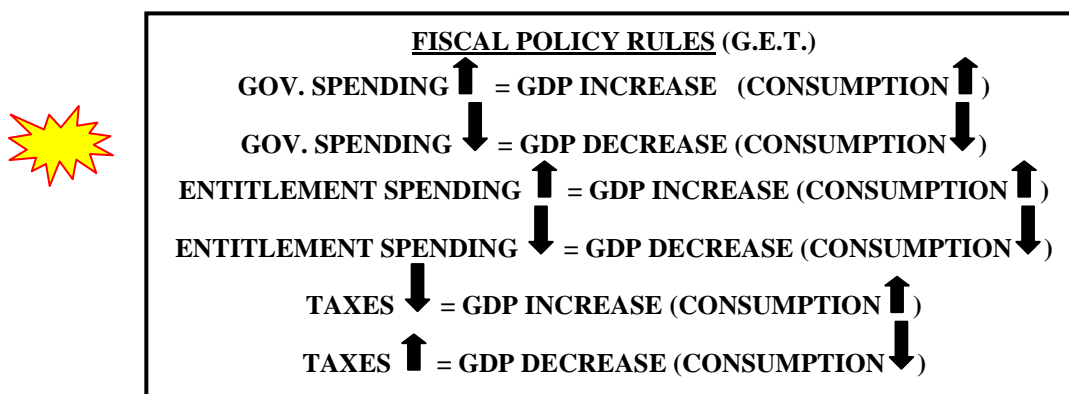
The federal government can affect the national economy through **TAXES, GOVERNMENT EXPENDITURES (SPENDING), and TRANSFER PAYMENTS**. To see how each of these factors can change GDP, recall the earlier formula:

$$\text{GDP} = C + I + G + X_n$$

**\*\*KNOW THE FORMULA\*\***

The first element, taxes, can affect both consumers (C) and business investment (I) from the GDP formula. Consumers make up more of GDP than business investment, however, so consumer taxes have a greater influence on GDP than taxes relating to business investment.

**To boost GDP, the government can reduce taxes.** This would encourage most consumers to purchase more because the government is taking a smaller portion of their income. When consumers spend more, producers increase their output and the GDP increases. Another way to **increase GDP** would be to **increase government spending (G)**. However, consider what would happen if tax cuts and government spending were to occur at the same time. **The new tax deduction would reduce government revenue while the government was simultaneously increasing its spending. This could lead to a budget deficit, where the government spends more than it collects.** Over time, the government would have to borrow money in order to make up this deficit. This might not seem like a big deal, but continued budget deficits will lead to increased interest payments on that national debt. To get more money, the government might have to raise taxes that don't provide any service other than paying the interest on the national debt.



### Banking Functions

For many people, banks are places to store money. These people keep money in checking and savings deposits, and they might even store valuable jewels, stocks, or important documents in safety deposit boxes inside their bank's vault. If a person keeps enough money in his or her accounts, a bank might even offer these services free of charge.

#### **The two main functions of a bank:**

- Holding people's money and making loans**—are related. While banks are storing money deposited by their customers they can offer this money to borrowers in the form of loans. This is why banks often waive fees for people with large deposits. They want that cash! To be more precise, large deposits increase the amount that banks are able to loan, and in the banking world, more loans equal more profits.
  - The process described above sounds simple, but the real banking world is not quite so easy. First, banks only make money if the loans are repaid. If loans aren't repaid, then banks are in trouble, especially when depositors show up to retrieve the money in their accounts. This is why banks are careful to insure that loans will be repaid. A borrower often has to have collateral to receive a loan. Collateral is often property (like a house or farm) that the bank will receive if the monetary loan is not repaid.*
- Second, banks increase deposits by offering interest rates on some accounts, like savings accounts. The interest rate creates an incentive for people to place money in the bank, but it also cuts into bank profits.** Of course, the interest rate offered on accounts is less than the rate at which banks loan out the money. If it weren't, the bank would never be able to make a profit.
  - Finally, the more money a bank lends out, the greater its profits will be. However, depositors have a right to enter a bank and demand the money in their accounts. For this reason, the federal government requires banks to keep a percentage of total deposits (called the reserve rate) on hand at all times. This amount wouldn't be enough if everybody showed up and demanded his or her money, but this rarely happens. The current reserve rate is 10 percent of the value of all checking and savings accounts.*

## Monetary Policy and the Federal Reserve

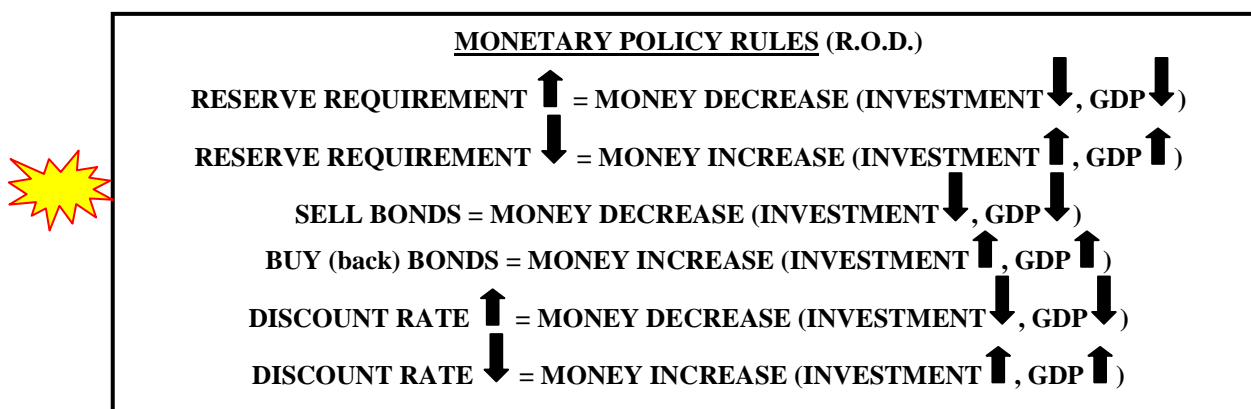
In 1913, Congress created the Federal Reserve System to act as the nation's central bank. By creating this "lender of last resort," Congress hoped to insure people that the money they placed into U.S. banks would not disappear due to shoddy business practice

Currently, the Federal Reserve System consists of **twelve different banks** located throughout the United States. Each bank covers a different district and manages its own currency. You can see which bank printed a particular one-dollar bill by looking to the left of Washington's portrait

The **Federal Reserve System** (also called the *Fed*) influences monetary policy for two main reasons. It wishes to control inflation (for reasons you have just seen), and it attempts to curb recessions. The Fed achieves these goals by buying and selling government securities in the open market. Imagine that these securities are pieces of paper promising that the government will eventually repay the amount of the security (plus interest). So, if the government wants to reduce the money supply, it can simply sell these securities, essentially trading cash for secure promises. **By buying and selling these securities, called Open Market operations, the government can immediately affect the money supply and eventually change the interest rate.**

For example, suppose the *Federal Reserve* believes that a rapidly growing economy will cause demand-pull inflation. **To deter inflation, the Fed will offer to *sell* securities at prices low enough to guarantee someone will buy it. This operation will have the net effect of taking money out of circulation.** Also this influx of securities causes bond prices to fall and interest rates to rise. Higher interest rates discourage business investment and consumer spending, which reduces real GDP, which slows economic growth and curbs inflation. The economy should now begin to stabilize.

1. **OPEN-MARKET OPERATIONS:** If the Federal Reserve wanted to stimulate the economy to reduce unemployment, it could **buy** securities on the open market. This would have the opposite effect as the scenario described above. It would create an *easy money* environment in which money (consumer loans) are easier to purchase.
2. **DISCOUNT RATE:** The Federal Reserve could also manipulate the **discount rate**, which is the interest rate that the Fed charges on loans it makes to banks. (The Fed is like a banker's bank in many ways.) Altering this rate affects whether or not banks take loans from the Federal Reserve Bank. **For example, a low discount rate encourages banks to borrow money, leading to more loans, which ultimately means more money in the economy.** In turn the *prime rate* will decrease as well as interest rates in general.
3. **RESERVE REQUIREMENT:** Finally, the Federal Reserve can influence the money supply by changing the **reserve requirement**. From the first standard, you know that a lower reserve rate means banks can loan out more money. The required reserve rate usually is around 10%.



### Example Question:

Suppose the economy is in a recession. The Fed would do all of the following EXCEPT

- a. **increase the discount rate**
- b. decrease the reserve requirement
- c. buy securities on the open market
- d. make banks hold less reserve for all types of deposits

**Increasing the discount rate will discourage banks to borrow money from the Federal Reserve. This will decrease the money supply, so A is the correct answer. All other choices will increase the nation's money supply during the recession.**

### Economic Exchange: What is Money

Before money was used, it was hard for goods to be exchanged without the problem of **double coincidence of wants**. Both parties had to desire the good the other was willing to exchange. The system was known as the **barter system**, in which one set of goods is exchanged for another in some proportion.

The circumstances change if money is used. With money, goods have prices (instead of exchange rates), such as \$100. This shows money in its primary usage, which is as a **Medium of Exchange**. Money is used in all facets of the economy.

Besides being a medium of exchange, money serves two other functions. It acts as a **Unit of Account**, which means it allows you to understand how much something costs in terms of other items. For example, if someone brags about spending \$500 on a watermelon, you know this person paid way too much. This is because most consumers have a good idea about how much certain things should cost or, in other words, what their standard of value really is.

Money also acts as **Store of Value**. This means that money can be saved and spent later. In other words, money is a way to store wealth so that someone can buy goods and services whenever they need to. Just imagine if you needed to work at a grocery store to earn groceries, or work in a kitchen every time you ate at a restaurant. Exchange would be very difficult.

When money acts as a store of value, however, you can use it to buy groceries without having to work for the grocery store or eat at a restaurant without having to know how to cook.

<p style="text-align: center;"><b><u>THE FUNCTIONS OF MONEY (S.U.M.)</u></b> <b>STORE OF VALUE</b> <b>UNIT OF ACCOUNT (YARDSTICK)</b> <b>MEDIUM OF EXCHANGE</b></p>
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### Types of Money

In addition to having different uses, money also comes in different forms. The form you are most familiar with is currency, which consists of coins and paper money. The US dollar is made of paper and cotton, which by itself is worth nothing, however the bill gets its value from the government. So the US bill (and many other currencies get their value for a government decree. This type of money is known as **Fiat Money** (or **representative money**).

There are also demand deposits at banks. When someone writes a check, he or she is using this form of money, which is typically kept in a checking deposit at a bank. Other forms of money include savings deposits as well as CDs (Certificate of Deposits). Items, such as cigarettes and magazines in prison can be termed "money". This type of money is called **commodity money** (because you are trading commodities, otherwise known as consumer products)

- **COMMODITY MONEY:** The money itself has value. Example is gold or silver coins.
- **FIAT MONEY:** The money only represents something of value. The US dollar is backed by the credit of the US government. The Euro is backed by a group of governments (the European Community)

## IV. INTERNATIONAL ECONOMIC TOPICS

### *The International Economy*

The growth of massive multinational corporations is one sign that the world's economy is becoming more interconnected each year. Take a trip to a local grocery store to see this phenomenon. You should find fruit and vegetables from Australia, Asia, and South America sitting next to peaches and tomatoes that may have been grown mere miles away from your home. As national economies become more interconnected, international economic issues like trade agreements and trade barriers become more important.

### *International Trade*

International trade allows a country to concentrate on what it does best and trade for what it can't or doesn't produce. In effect, trade allows a country to specialize in certain goods, which (as you know from earlier sections) leads to more efficient production.

An example of this can be found by considering the relationship between Brazil's sugar industry and the United States' auto-making industry. The climate and environment of Brazil makes growing sugar cane relatively easy. It would be much harder to grow sugar cane in Detroit, for example, which would require large greenhouses, huge sunlamps, and a labor force skilled in the growth of this tropical plant. It is much easier for Detroit (and by extension the United States) to specialize in manufacturing automobiles and then trade for sugar from Brazil. In fact, when each country specializes in what it does best, each country has more to trade. In other words, as both countries take advantages of their strengths, both countries increase their overall economic well-being.

### *Imbalance of International Trade*

1. **TRADE SURPLUS:** When the USA begins to **EXPORT** more than it **IMPORTS** (*taking in*). **The money flows from foreign countries to the USA, which increases our GDP and decreases the unemployment rate.**
2. **TRADE DEFICIT:** When the USA begins to **IMPORT** more than it **EXPORTS** (*sending out*). **The money flows from the US to the foreign countries, which decreases our GDP and increases the unemployment rate.**

### *Advantages of International Trade*

**The terms economists use to describe a country's economic strengths in relation to another country are *absolute advantage* and *comparative advantage*.**

When a country has an ***absolute advantage*** over another country it simply means that that country can produce more of a good than another country. For example, Brazil has an absolute advantage over the United States in the production of sugar, while the United States has an absolute advantage over Brazil in the production of cars. While large countries will probably have an absolute advantage in production over smaller countries, when any two countries are producing two goods, like cars and sugar, one country will always have a ***comparative advantage*** over the other in the production of one of the two goods.

Put another way, given two countries that can both produce sugar and cars, one country should specialize in producing cars and one country should specialize in producing sugar so that they can trade. At first this might seem silly. After all, what if a country is better at producing both sugar and cars? Imagine that the United States isn't trading sugar and cars with a country as large as Brazil. Instead, suppose that United States is trading with a very small country like Costa Rica. Unlike Brazil, Costa Rica cannot produce as much sugar as the United States, nor can it produce as many cars as the United States. In fact, the United States has an absolute advantage over Costa Rica in the production of both cars *and* sugar. Does this mean that they cannot benefit from trade? The answer is no. **They can still benefit from trading with one another because each country has a comparative advantage over the other.** In essence, this means that one country is more efficient at producing a good than the other. While Costa Rica might not be able to produce as much sugar as the United States, it does not cost it very much to produce the small amount that it can grow.

After all, Costa Rica doesn't need greenhouses and expensive equipment to grow sugar cane. So, while the United States could produce more sugar than Costa Rica, it should put more effort into producing cars because it costs so much to produce sugar in the United States. **If Costa Rica and the United States trade, the United States should produce cars (because it has a comparative advantage in the production of cars) and Costa Rica should produce sugar (because it has a comparative advantage in the production of sugar.)** While the United States could produce more of both, it is more efficient to specialize in the production of cars and trade those extra cars for sugar. The example on the previous page illustrates the benefits of international trade. In economic terms, there are clear advantages to both countries. Sometimes, however, policy makers make decisions that are not always based on economic principles.

For instance, sometimes a nation's leader might feel that a particular industry is important for national security. Because a war might disrupt trade, a country that is dependent on others for certain goods might be left unprepared. Therefore, a country might try to encourage certain industries to remain functional, even though it might be more efficient to trade for that

particular good rather than produce it. **This is known as protectionism (protectionist trade policy) because it protects a country's industries from foreign competition.** If a nation engages in protectionist policies, it usually does so by finding ways to reduce the amount of a foreign good that enter the country.

**International trade is, nevertheless, beneficial to an economy. While protectionism might allow some domestic firms to keep producing, allowing free trade is almost always the most efficient way to run an economy.**

### ***Other International Terms: Ways to Help Domestic Businesses***

**A tariff is a tax on an imported good. This increases the price of that good, thereby decreasing the quantity demanded.** A high tariff might help a domestic producer (who does not rely on foreign material to make his/her product) stay in business. Unfortunately domestic consumers will pay more for foreign goods.

**A quota functions in a similar way but instead of taxing the import, a quota limits the amount of a good that is allowed into the country.** That way, while a foreign good may be cheaper, domestic consumers can only buy so much of it. So they have to buy comparable domestic goods instead. In general, both tariffs and quotas are put in place in order to make it easier for domestic producers to compete against foreign firms who want to sell their products in the United States.

### **STRATEGY BOX — International Trade and Dependency**

International trade can also help reduce the incidence of wars between nations. When the economic fortunes of two countries become linked, these countries are less likely to go to war with each other over disagreements. This is due to the fact that each nation knows a war will damage their economy as well as the economy of their opponent.

### ***International Trade Issues: Exchange Rates***

Tariffs, quotas, and other trade agreements are international trade issues that entire countries must address. For individuals, the exchange rate is one of the most important international trade issues. **The exchange rate measures the price of one nation's currency in terms of another nation's currency.**

Consider the case of two grocery stores: Americo-store and Groceria Mexicana. Americo-store is in Brownsville, Texas, while Groceria Mexicana is right across the border in Matamoros, Mexico. **Suppose that the exchange rate between the U.S. dollar and the Mexican peso is 1:10, meaning one U.S. dollar translates to 10 Mexican pesos.** Exchange rates move up and down to reflect the worth of one country's currency in comparison to another. If there is a great demand for U.S. products, people need more U.S. dollars to purchase these goods. This drives the demand for U.S. dollars up, causing the dollar to **appreciate**, or strengthen. At the same time, the peso has **depreciated**, or weakened, relative to the dollar. This means that the new exchange rate is, say, 1:15, meaning an American dollar now translates to 15 Mexican pesos.

### **HERE'S THE BIG QUESTION: WHICH GROCERY STORE BENEFITS FROM THE NEW EXCHANGE RATE?**

**If you answered Groceria Mexicana, you would be correct. The appreciated dollar makes U.S. goods more expensive relative to their Mexican counterparts. The dollar can purchase more, but it also raises the price of U.S. goods. Some U.S. customers might take advantage of the strong dollar and cross the border to shop at Groceria Mexicana, since their dollars are worth 15 pesos instead of 10.**

Similarly, anyone converting pesos to dollars needs to pay 15 pesos for one dollar, rather than 10. In this case, when a person is converting dollars to pesos, his or her purchasing power has increased due to the new exchange rate. When a person is converting pesos to dollars, however, the stronger dollar lowers their purchasing power. Overall, business at Groceria Mexicana would increase, while Americo-store's business will decline as some customers cross the border to take advantage of their strengthened currency.

A question might look like this:

**Over the course of one year, the Japanese yen depreciates relative to the euro.**

**Which two groups of people would benefit the most from this occurrence?**

- A European consumer of European goods
- B European consumers of Japanese goods**
- C Japanese consumers of Japanese goods
- D Japanese consumers of European goods

*The yen has depreciated, meaning that one euro now purchases more yen than it did previously. This would help European consumers of Japanese goods, since they now have additional purchasing power in Japanese markets due to the stronger euro. The answer is B.*

## V. PERSONAL FINANCE TOPICS

### Role of Regulatory Government Agencies

Government regulation takes many forms. Overall, the goal of the government is to provide for the health and safety of its citizens and its businesses. Some regulation protects citizens from corporate abuse.

Two regulatory agencies examples are:

1. **SECURITIES AND EXCHANGE COMMISSION (SEC):** The Securities and Exchange Commission is the US government agency that has regulatory authority over all matters dealing with securities. It helps protect investors against fraud committed by companies that sell stocks and bonds.
2. **FEDERAL DEPOSITOR'S INSURANCE CORPORATION (FDIC):** Established by the federal government in 1933 after the bank failures of the Great Depression, the FDIC guarantees deposits in member banks and thrift institutions for up to \$100,000 per depositor per bank. If the bank fails, the government will make good on your money up to the established limits.

### Savings, Investment, and Capital

1. **Savings** are monetary deposits secured for a later, undetermined use. Money in savings might eventually be spent on groceries, a vacation, or some other form of consumption.
2. In contrast, an **investment** is money used with the expectation of some future return or benefit. Investing money in an institution (financial, corporate etc.) one takes the risk that the investment will be profitable. There is no guaranteed rate of return (except like there is with a savings account).
3. When **producers** are given additional money, the factors of production come into play.
4. The amount of land is often fixed, and entrepreneurship is hard to purchase, so the question of where the additional money should be spent often boils down to, "*Should the money be used for labor or capital?*"
5. In general, **U.S. producers often choose to invest in capital, especially new technologies that can boost production levels.** This gives U.S. businesses the ability to compete against foreign businesses that can hire workers at a fraction of the minimum wage in the United States. Even though these firms have low labor costs, U.S. firms can often maintain an advantage in production by using the best technology and heavy capital investment.

### Types of Financial Loans and Associated Terms

1. **MORTGAGE (HOME) LOAN:** Since the cost of a house is often quite high, many people receive a loan called a **mortgage** to pay for a house. **Mortgages are loans that are usually paid out over a considerable length of time, such as ten, fifteen, or thirty years. Most mortgages are fixed; the interest rate is set at the time of the loan and does not change.** *The fixed rate allows households to know how much payments will be for the life of the loan; if the loan was at a variable rate, fluctuations in the interest rate might cause financial turmoil for the household.*
2. **CONSUMER LOAN:** Sometimes people just need a little extra money. The money might be used to buy a new car, for some type of home repair, or just to throw a really, really great birthday party. Consumer loans are not as large as most home loans, and they often have an interest rate that is a little higher than a home loan. Also, the duration of most of these loans is relatively short, averaging around 1-5 years in length.
3. **CREDIT CARD:** **Credit cards allow people to purchase goods and services easily.** When traveling, you can carry these strips of plastic instead of a great deal of currency that could be stolen. Although credit cards are convenient, consumers pay for this convenience with high interest rates. **Interest rates around 18% are not uncommon, and the rates are variable,** so consumers often find themselves holding a large amount of high-interest credit card debt if they are not careful with their spending habits. Interest on a credit card typically accrues on a monthly basis.
4. **CREDIT UNIONS:** **A non-profit financial institution that is owned and operated entirely by its members.** Credit unions provide financial services for their members at discounted rates. Services include savings, checking, and lending. **To join a credit union, a person must ordinarily belong to a participating organization, such as a college alumni association, labor union, or large company.**

5. **INTEREST RATES:** The interest rate is the percentage amount of payment by **borrowers** to the **lender**. An annual interest rate of 5% on a \$100 loan would translate to an interest payment of \$5 each year, since we convert 5% to the decimal 0.05, then  $5\%(\$100) = (0.05)(100) = \$5.00$ , so after one year, the person would now owe \$105.
- With a **SIMPLE** interest rate, the interest is determined annually with the **original** loan amount. In the second year, the interest would again be \$5, so a person would owe  $\$105 + \$5 = \$110$  after the second year.
  - With a **COMPOUND** interest rate, future interest is determined with the **existing amount owed**. In the second year of a compound debt, the interest would be  $5\% (105) = (0.05)(105) = \$5.25$ .  
**Compounding** would be as follows:  $\$105 + \$5.25 = \$110.25$  so the compound interest rate is greater than the simple interest rate. The current difference is only a quarter (\$110 versus \$110.25), but compound interest can build up a lot over a period of time.

### STRATEGY BOX — Simple Way to Remember

Simple interest calculations never change. You always use the original amount borrowed/lent in your calculations. Compound is just that, it builds on itself each period (each month year, or even day). In compound calculations you will always use the current balance in the account as the basis to figure interest gained (investment) or interest expense (loan).

### Types of Insurance and Associated Terms

Insurance is a necessity in today's society. Life is very unpredictable, from death to job-loss; we need a "back-up plan. Insurance is a way to safe guard ourselves and those around us. The following are the most common types of insurance:

1. **DISABILITY INSURANCE:** these policies provide financial support in the event the policyholder is unable to work because of disabling illness or injury. It provides monthly support to help pay such payment as mortgages and credit cards.
2. **HEALTH INSURANCE:** these policies will often cover the cost of private medical treatments. This is the most important of all insurance types. Without this, one trip to the emergency room for a broken arm could cost in excess of \$2,000. A major accident could cost in excess of \$50,000.
3. **LIABILITY INSURANCE:** This is a very broad insurance that covers legal claims against the insured. Many types of insurance include an aspect of liability coverage. *For example, a homeowner's insurance policy will normally include liability coverage which protects the insured in the event of a claim brought by someone who slips and falls on the property; automobile insurance also includes an aspect of liability insurance that indemnifies against the harm that a crashing car can cause to others' lives, health, or property.*
  - The protection offered by a liability insurance policy is twofold: *a legal defense in the event of a lawsuit commenced against the policyholder and payment on behalf of the insured with respect to a settlement or court verdict.*
  - Liability policies typically cover only the negligence of the insured, and will not apply to results of willful or intentional acts by the insured.
4. **LIFE INSURANCE:** when one dies this provide a monetary benefit to a family or other designated beneficiary, and may specifically provide for income to an insured person's family, burial, funeral and other final expenses. Life insurance policies often allow the option of having the proceeds paid to the beneficiary either in a lump sum cash payment or an annuity.
  - Annuities provide a stream of payments and are generally classified as insurance because they are issued by insurance companies and regulated as insurance and require the same kinds of actuarial and investment management expertise that life insurance requires.
  - **Types of Life Insurance:**
    - **Term Life:** provides a benefit in the event of death for a certain term of years (EX: 20 or 30 years). After which the policy lapses and the person is no longer covered in the event of death. The person will have to renew the policy later in life. One cannot withdraw money put into a term life policy.
    - **Whole Life:** the insurance policy does not end and the premiums paid each month gain value (like a savings account) so you can withdraw from it in later years. The premiums are more expensive than term life, but the policy has no end and you have access to extra cash later in life.



- WORKERS' COMPENSATION:** this insurance replaces all or part of a worker's wages lost and accompanying medical expense incurred because of a job-related injury. It is paid for by your employer.

### **STRATEGY BOX — Insurance and Risk Management**

Insurance is the best way to manage risk. Insurance allows you to reduce (and possibly eliminate) the risk of losing your job, death or a loved one, or your own death.

#### Types of Investments and Associated Terms

There are five basic types of investments.

They are listed below from **LEAST RISK to MOST RISK**.

- U.S. GOVERNMENT BONDS:** When you invest in a US Government bond, you are loaning the government a sum of money in return for income. In return for the loan, you get an interest rate payment and a promise to pay the loan back. And because the government gives you a promise to pay it back, a bond is still considered a conservative investment.
- CERTIFICATES OF DEPOSIT (CDs):** An investment whereby you lend a bank a set amount of money, which is then invested in securities or used for loans. For the use of your money, you are ensured the return of your principal at maturity and interest over the life of the CD. **CDs are insured by the Federal Depositor's Insurance Corporation (FDIC). CDs work like bonds.**
- CORPORATE BONDS:** Same as above, except a company issued the bond instead of the government.
- MUTUAL FUNDS:** A professionally managed, **DIVERSIFIED** investment that enables investors to pool money with other investors. A diversified investment such as a mutual fund may reduce risk since not all your "eggs" are in one basket.
- STOCKS:** **Types of securities representing ownership in a corporation.** Stocks carry the most risk because if a company begins to lose business, or investors lose faith in the company, then the stock value decreases and the investor lose part or all of the original investment.

#### Investments and Risk: Graphic Representation

The below visual helps demonstrate the relationship between risk and various investments.

