## Economics for Dummies

# Written by: <br> Nathan Roberts, Ena Silva, Melissa Atwood and Tamara Hatch 

| Editor: |
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| Nathan Roberts |$\frac{\text { Artwork by: }}{\text { Ena Silva }}$

Preface
"Economics for Dummies" began as a quarter project for Mr. Bremer's Econmics class. The
project was meant to be an economics handbook for the common-sense person. The four group
members were Nathan Roberts, Ena Silva, Melissa Atwood, and Tammy Hatch.

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## Economics for Dummies

What is economics? Why do we have money? What determines the cost of the things we buy? Economics is the study of our market system; it's the study of how people make choices about what they buy, what they produce, and how our market system works. This guidebook should clear up some of these mysteries with simple, common-sense answers. After reading it, you will have a better idea of what makes our economy tick.

## The Science of Economics

## Scarcity

People want many things in life; in fact, the more they have, the more they want. When a desire is fulfilled, another desire replaces it. Our desires are infinite, but the resource to fulfill these desires are limited. There aren't enough resources to give everyone what they want.

The concept of scarcity is one of the most important concepts in economics. If we had the resources to fulfill every desire we had, everybody would have everything they wanted. But life is not like that; we have limited resources, and we must make decisions on how to use those resources. Economics is the study of those decisions.

## Opportunity Costs

Since we have more desires than resources to fulfill them, we must choose one desire to fulfill over another. The opportunity cost of the decision is what you had to give up to get what you wanted. You may want a new stereo system, but you also want a television set, but you don't have the money to buy both. If you choose to buy the stereo, the television set was the opportunity cost of that decision. You might decide to go out to dinner instead of going to movie. You might choose to stay up late studying for a final, at the cost of some sleep. In each example, a choice was made; something was sacrificed; there was a cost, not necessarily a monetary cost.

Everything has a opportunity cost.


The four questions
There are four basic questions that every economy must answer. What should be produced? How many should be produced? What methods should be used? How should the goods and services be distributed?

There are two kinds of economies: A command economy and a market economy. In a command economy, the government would answer all these questions. In a market economy, the marketplace decides how to answer the four basic questions. A market economy would answer these questions by saying that each producer can answer these questions themselves. A producer can make their own decisions, but these decisions would be determined by the marketplace. In other words, a producer makes decisions that will make his product sell, and make him money. So the buying public really makes these decisions, by choosing to buy, or not to buy, a product.

Here in the United States, we live in a market economy.

## Characteristics of a Market Economy

There are five characteristics of a pure market economy: Economic freedom, economic incentives, competition, private ownership, and limited government.

Economic Freedom: In a market economy, people have the freedom to make their own economic decisions. People have the right to decide what job they work in, and their salary. A producer has the freedom to produce whatever product or products they want, and what price to sell them at. Everyone has the freedom to choose what is in their best interests as long as they don't interfere with the rights of others.

Economic incentives: While everyone has economic freedom, in practice it doesn't necessarily mean that people can simply do what they want. A producer has the freedom to charge an unreasonably high price for an item, but chances are people won't buy it. This is an example of an economic incentive. Economic incentives are the consequences, positive or negative, of making an economic decision. A positive incentive, such as making a profit on an item,
encourages a producer to produce what the consumer wants. A negative incentive, such as a drop in profits or a boycott, would discourage producers from acting against the public interest.

Competition: There is competition in a pure market economy. This means that there isn't just one producer producing an item for the public. There are usually many producers of any given item. This gives consumers a choice in buying something. If they don't like the price or quality of a product made by one company, they can buy the product from another company. This encourages the producer to produce a quality product, and charge a reasonable price for it. If they don't, they will lose business to "the other guy".

Private Ownership: In a market economy, the individual people or companies own the the factors of production that they use to make their product, as opposed to the factors of production being owned by the government.

Limited Government: A pure market economy requires a "limited" government, that is, a government that does not have absolute power over its people, and plays no role in the economic decisions of the people. If the government was not limited, it would have control over the economy, and there would be no economic freedom, and the economy would, by definition, be a command economy, rather than a market economy.

## The Factors of Production

To produce goods and services, resources must be used. These resources are the "factors of production". These resources are Land, Labor, and Capital.

Land: The natural resources that people use: Forests, pasture land, minerals, water, etc.
Labor: The human ability to produce a good or service: Talents, skills, physical labor, etc.
Capital: Goods made by people to be used specifically to produce goods and services: Tools, office equipment, roads, factories, etc.


Another factor of production is Entrepreneurship. An entrepreneur is someone who puts all the factors of production together to make a good or service. Without any entrepreneurship, no good or service would be produced.


## Circular Flow

In a market economy, there are two markets: The "factor market", and the "product market". In the factor market, the people, who own the factors of production, sell their services to the companies that produce products. In exchange, the companies give the workers wages and, rent, and interest. In the factor market, the people are the sellers, and the companies are the buyers. The people are selling their services to the production firms.

In the product market, companies sell the products they have produced to the people who pay money to the companies for them. The money is flowing in the opposite direction this time; people are buying products from the producing firms.

In this way, money flows through the economy in a circle. The money goes from the producers to the workers in the form of wages, and the money then flows back to the producers in the form of payment for products.


## The Invisible Hand

The Invisible Hand is the concept that producers will be guided, as if by an "invisible hand", to produce what the public wants. The reason for this, ironically, is greed; A producer will produce what the public wants simply because that is what will create profit for him. Likewise, a producer also will not produce something harmful to the public, since it would cause him to lose profits.


## The Law of Demand

The Law of Demand states that when the price of an item goes down, the demand for it goes up. When the price drops, people who could not afford the item can now buy it, and people who weren't willing to buy it before will now buy it at the lower price. Also, if the price of an item drops enough, people will buy more of the product, and even find alternate uses for the product; for example, if the price of a sweater drops enough, people would start buying them to put on their pets.

## The Law of Supply

The Law of Supply states that when the selling price of an item rises, more people will produce the item. Since a higher price means more profit for the producer, as the price rises, more people will be willing to produce the item when they see that there's money to be made.

## Equilibrium Price

If a sample "demand graph" was drawn, with price on the X -axis and quantity of a product demanded on the Y -axis, the graph would look like a downward-sloping curve; as price increases, demand goes down. If a "supply graph" was drawn, it would be a upward-sloping curve; as price increases, supply increases. If both curves are drawn on the same graph, the point at which they meet is the "Equilibrium Price". This is the price at which the amount of product demanded is equal to the amount of

Supply ts. Demand
 product supplied; in other words, if the price of a product is set at its equilibrium price, then for each individual product produced, there is a buyer for it. If the price of the product is set too high, then there will be more product produced than bought; a surplus of goods would occur. If the price is set too low, there would be demand for a higher quantity of product than is being produced; a shortage would occur.

Increase in demand


If a product turned out to suddenly become very popular, and the total demand were to suddenly increase (that is, more people demand a product at any given price), the demand curve would shift up and right, and the equilibrium price would increase. Likewise, if demand decreases, the demand curve would shift down and left, and the equilibrium price would decrease.

If the total supply for a product were to increase, the curve would shift up and left, and the equilibrium price would decrease. If the supply were to decrease, the curve would shift down and right, and the equilibrium price would increase.

## Clarification

I should make it clear at this point that when we say that "demand goes up", we are talking about moving along the demand curve; I.E. at a lower price, more people are willing and able to buy it. When we say that "total demand goes up", we mean that the amount of demand at all prices goes up; I.E. the entire curve shifts up. If the price of an item drops and more people buy it, the demand for it goes up; if something has made the product more popular, and more people are
willing to buy it at any price, the total demand has gone up.

## Elastic vs. Inelastic supply and demand curves

If the demand for a product is not affected by a change in price, the product is said to have "inelastic demand." Products that people need to survive, such as food, are inelastic. People will buy them no matter what the price is, because they need the product.

If the supply for a product is not effect by a change in price, it is said to have "inelastic supply." If a product is difficult (or impossible) to produce, or difficult to produce in mass numbers, it will have inelastic supply. If the price goes up, the producers
 cannot increase the amount supplied. An example of a product with inelastic supply is an antique item. No matter how much the price rises, no more of the valuable item can be produced.


If a graph is drawn for a product with inelastic demand or inelastic supply, the graph will have a very small slope; that is, it will be more "horizontal" than "vertical"; the more inelastic the demand, the more horizontal the graph will be. The graph of a product with "perfectly" inelastic supply or demand will be a perfectly straight horizontal line; the amount supplied or demanded will be the same no matter what the price.

## Third party costs and benefits

When a business transaction takes place, there are two parties: The seller who sells the product to the buyer, and the buyer who buys the product from the seller. The transaction takes place between the two parties, and no one else. Sometimes, however, a third party, someone that was not involved in the transaction, is either hurt or helped by the transaction. This is called a "third party cost", or a "third party benefit", respectively.

An example of a third party cost would be a pack of cigarettes: There's the drug store owner as the seller, the smoker as the buyer, and the people who are offended by the smoker's smoking are the third party that are hurt by the transaction, even though they had nothing to do with it.

A third party benefit would be the nicotine patch: There's the seller of the patch, the smoker that buys the patch, and the third party that benefits are the people who no longer have to breathe the contaminated air from the smoker's cigarette.


## Gross Domestic Product

The Gross Domestic Product is the total value of all goods and services produced in the country． In computing the GDP，only the value of the final goods and services are included．This means that only the value of the final product is included，and not all the individual supplies that went into making that product．A house，for example，would only have its own value included in the GDP，and not the lumber，brick，wire，glass，cement，and shingles that went into building it．

## Business

## Market Structures

For any given product that is produced，its production market falls into one of four categories： Pure competition，monopolistic competition，oligopoly，and monopoly．These categories are called the＂market structures＂．The category that a product falls into depends on how many people are producing it．

| Market Structures |  |  |  |
| :---: | :---: | :---: | :---: |
| Pure competition | Monopolistic Competion | Oilgopoly | Pure Monopoly |
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In a purely competitive market, there are many buyers and sellers. It is easy for a new person to enter the market, and the products are all pretty much identical. For example, an egg market that has 5,000 firms, each making 10,000 eggs per year. 50,000,000 eggs are being produced each year, and each egg is the same as every other egg.

In a market with monopolistic competition, there a large number of firms producing a product. Each firm has a small amount of control over the price, and it is fairly easy for a new producer to enter the market. Each firm utilizes nonprice competition, that is, they compete with the other firms, not by competing in price, but by trying to make their product unique; different from the products made by other companies in the market. This is called product differentiation. Examples of monopolistic competition are barber shops, restaurants, and book stores. There are many firms in these markets. Each one is different, and they compete with each other by emphasizing how their product or service is different from the others.

In an oligopoly, there are just a few large firms producing the product. There is limited entry into an oligopoly (in other words it is difficult for a new firm to enter into the market and be widely recognized and accepted), and oligopolies utilize nonprice competition and product differentiation. An example of an oligopoly is the automobile industry; just a few large firms producing the products.

In a pure monopoly, there is no competition at all, just one large firm making a given product. A monopoly can charge any price it wants for a product, since there is no other producer with a lower price that consumers can go to. Since monopolies hurt consumers by not providing people with any choice of where to go, the government often breaks up monopolies.

| Market | Number of <br> firms | Control <br> over price | Type of product | Entry | Competition |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Pure <br> competition | Very large | None | Standardized | Very easy | Price-based |
| Monopolistic <br> competition | Large | Small | Differentiated | Fairly easy | Non-price |
| Oligopoly | Few <br> dominant <br> firms | Fair <br> amount of <br> control | Standardized or <br> differentiated | Difficult | Non-price <br> competition for <br> differentiated <br> products |
| Monopoly | One | Large | One | Blocked to <br> other firms | Non-existant |

## Types of businesses

There are three kinds of businesses structures that exist in our economy: Sole proprietorships,
partnerships, and corporations.
A sole proprietorship is the simplest form of business. It is owned and operated by a single person. In a sole proprietorship, the owner makes all the decisions, and receives all the benefits. The owner also is responsible for all debts and liabilities. When the owner of a sole proprietorship dies, the business usually ends. There are more than 11 million soleproprietorships in our nation.

In a partnership, the business is owned by two or more people. A partnership is more complex than a sole proprietorship. The responsibility of making business decisions are shared by the partners, the profits are divided among the partners, and the payment of losses are divided among the partners.

In a corporation, the founder of the business sells "pieces" of ownership out to investors. Investors that own a piece of a corporation are called the shareholders. The shareholders of a corporation elect a board of directors to make business decisions for the corporation. The larger chunk of the company that a shareholder owns, the more weight his vote carries. If a corporation makes profits, the board of directors can pay the profits back the shareholders. These payments are called dividends. The directors, however, may decide to reinvest the profits back into the business. If a corporation loses money, than the shareholders will lose money, although an individual shareholder cannot lose more money than he originally invested.

|  | Sole Proprietorship | Partnership | Corporation |
| :--- | :--- | :--- | :--- |
| Ease of <br> organization | Easy | Moderately <br> difficult | Most difficult |
| Responsibility | Owner makes all <br> decisions | Spread among <br> partners | Policy set by directors elected <br> by stockholders |
| Flexibility | Greatest | Intermediate | Least |
| Taxation | No corporate income <br> tax | No corporate <br> income tax | Corporate income tax |
| Distribution of <br> profits and losses | Owner takes all profits <br> and pays for all losses | Distributed <br> among partners | Distributed to stockholders <br> through dividends, and increase <br> or decrease in stock value |
| Liability | Unlimited | Unlimited, but <br> spread to partners | Limited to each stockholder's <br> original investment |
| Length of life | Usually goes out of <br> business when owner <br> dies | Limited life | Unlimited; ownership of shares <br> readily transferable) |

## Stocks and Bonds

When a corporation sells out a piece of itself, that piece is called a stock. Selling stocks are a way that corporations raise money to invest in their company. When a person buys a stock, they become part-owner of the company. How big of a part of that ownership is determined by how much stock they buy. Since a shareholder is part-owner, they receive some of the profit of the company. Therefore, people invest in companies as a way to make money. Stocks are covered in more detail in section III of this booklet.

Another way that corporations raise money is to sell bonds. When a company sells a bond to a person, they are really borrowing money from that person, with a promise to pay the money back, with interest, at a future date. A company that sells the bond must pay the value of the bond back when the payback date comes, even if they lose money. A bond, therefore, carries a lower risk, which makes it more appealing to many investors.

There are two kinds of bonds: Bearer bonds and registered bonds. When a person buys a bearer bond, they are given a coupon that they can turn in when it is time to collect on the bond. A person could buy a bond and give the coupon to someone else to turn in if they so desired. On the other hand, when a person buys a registered bond, the corporation keeps the bond on record so that only the person who bought the bond can collect on it. This adds a measure of safety against theft or loss.

## The Stock Market

## Stock Exchange

A stock exchange is a place for businesses to sell stocks, pieces of ownership of the company, and for people to buy and sell stocks from each other. As more people buy a stock, the more valuable it becomes to shareholders, and the price of the stock goes up. As people sell stock, the price of the stock goes down. The primary goal of a stock buyer is to buy the stock when the price is low, and sell it later for a profit when the value of the stock goes up. When a stock can be sold at a higher price than it was bought at, it is called a capital gain.

## Common vs. Preferred Stock

There are two kinds of stock, common and preferred. Owners of preferred stock are first in line for dividends, and have a fixed dividend rate. Common stock holders are last in line for dividends, and the dividend for a common stock holder is variable. Common stock holders are allowed to vote for company directors, so a common stock holder has a say in how the company is run. Preferred stock holders, however, are usually not allowed to vote for the company directors. In short, common stock holders bear the greatest risk, because they are last in line for dividends, and their rate of dividend can drop.

## Bull and Bear markets

When people are optimistic and investment in the stock market is rising, it is called a "bull market." When people are pessimistic and investment is dropping, it is called a "bear market."

## Buying on Margin

Buying on margin is when a person buys stock with borrowed money. A person buys stock on margin when he expects the price of the stock to go up. He can then pay back the loan out of the profit made on the stock.

## Money and Inflation

## What's so Wrong With Bartering?

The process of bartering is trading an item with a person for something in exchange. Before there was money, people simply traded some item to get what they wanted. There were many problems with bartering. One of the problems was that you can't always find someone who has the item you want that wants something that you have. In fact, in many cases both parties involved in a trade want the same thing, and both have the same item to trade. Often the item you want is scarce and the items you have to trade are all abundant. If you have an abundant item, you can't trade it for anything since everyone has the item.


Another problem with bartering is that people might have to exchange a valuable item for an
item of lesser value simply because they need the item, and have nothing else to offer. For example, you may need a book for an economics class, and the bookmaker wants a new car. The car is much more valuable than the book, but you need the book to pass the class, so you trade the car for the book because you have nothing else to trade.

However, if we have a system of money, you can simply put down money to buy the book. You don't have to trade something that's much more valuable than the item you want; you can just shell out the amount of money that represents the cost of what you want to buy.

## Characteristics of good money

Money can come in different shapes, colors, and sizes. Money can be almost anything from salt to gold. But there are certain requirements for money to be a good medium of exchange. It needs to be easily recognized, easily divisible, portable, hard to duplicate, and it must be a good storer of value.


When I say that money needs to be easily recognized, I mean that people need to know when they see it that it has value. And that value is universal. We use many things for money today, such as checks, credit cards, currency, and ATM cards. All these things are easy to recognize, and are given equal value everywhere.

Money must be easily divisible. You need to be able to divide a large sum of money into smaller pieces in order to make a minor purchase. Gold is not easily divisible, since a small amount is very valuable; you would have to shave off very small pieces with a knife to buy a soda at a convenience store, and that small value would be hard to measure accurately.

Money also needs to be portable, meaning that it is easy to carry and transport. Salt would not make for very good money, since you would have to carry a large, and heavy, amount around to
make a small purchase. It would also be difficult to measure. You would need a measuring cup with you. Buying an item could turn into a major event.

Money must not be easily copied. If it were easy to reproduce, everyone would immediately make their own money, and it would quickly lose value. Now we have special bars that go through bills so that they can be authenticated, as well as using special paper. With out all these precautions, money could be easily counterfeited, and would be worthless.

Lastly, money must be a good storer of value. This means that you can put it away for a period of time, and it will still be valuable when you need it. If you saved up a lot of money, but had lost its value when you needed it the most, money would be useless.

## Inflation

Inflation is when the cost of goods and services in the marketplace all go up at once. There are two main types of inflation: Demand-pull inflation, and cost-push inflation. Demand-pull inflation happens when people's incomes rise, but the amount of goods and services in the marketplace remain the same. Since people have more money to spend, they are willing to pay more for goods and services. In other words, the total demand will go up, which will cause prices to rise. Demand-pull inflation has been described as "more money chasing the same amount of goods." Cost-push inflation happens when the cost of producing the item goes up. This means that the total supply for an item goes down, and again prices rise.

Demand-pull Inflation can be represented by the equation $\mathrm{MV}=\mathrm{PQ} . \mathrm{M}$ is the amount of money available to spend, V is the velocity that the money is spent at, in other words how many times one dollar is spent as it circulates through the economy, P is the price of an item, and Q is the quantity of items available in the marketplace. If $M$ rises, then mathematically either the prices $(\mathrm{P})$ must rise, or the amount of goods $(\mathrm{Q})$ must rise, or the velocity of spending $(\mathrm{V})$ must go down. If the money supply increases, and the amount of goods and the velocity of spending stay the same, prices will go up.

In general, inflation hurts people. When pricers rise, people can't buy as many things with their money. People on a fixed income (an income that doesn't increase when the cost of living goes up) are especially hurt, since the things they need to survive have increased in price, but their incomes don't increase. Businesses are hurt, since they can't invest as much in the business, and it's difficult to plan for the future if you don't know what the value of the dollar will be.

Some people are helped, however, and those people helped are people in debt (people who owe money). If someone borrows money, and inflation causes the value of money to go down, then the money they pay back won't be worth as much as when they borrowed it. They essentially are paying less money back then they borrowed.

