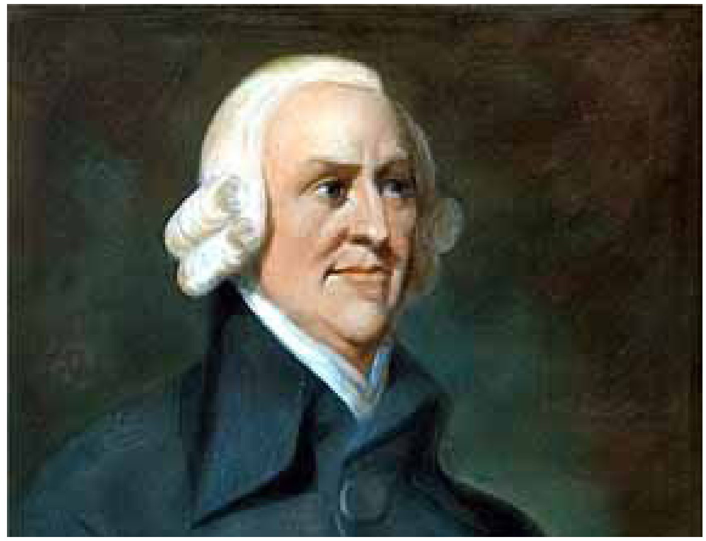
Adam Smith (1723 - 1790)

Adam Smith was an 18th century social philosopher & political economist. He wrote a book called The Wealth of Nations. The observations in the book form the foundation for much of modern-day economic thought.



Adam Smith (1723 - 1790) is considered the father of modern economic thought.
(Image courtesy of the National Galleries of Scotland)

Key Components of Adam Smith's Observiations

Self-Interest. People want not only basic necessities (food, clothing, shelter), but also things that make life easier, more convenient, and/or entertain them. People will pursue these self-interests.

A good example is your desire to have a smartphone. It is something you want, and you will take actions to be able to get that cell phone (like get a job, sell some things you have, etc.).

"Invisible Hand". As individuals pursue their self-interest, they will engage in mutually beneficial transactions. These beneficial transactions will allow those individuals to acquire the things they want and need to improve their standard of living. This improves the standard of living for the overall society and is the "invisible hand" that lifts society up.

Let's continue with the example of you wanting a smartphone. Since you want that smartphone, you get a job working at a local fast food restaurant. That restaurant is owned by someone who is pursuing his/her own self-interest (providing for his/her family, planning for retirement, etc.) by operating that restaurant. He/she is employing people pursuing their own self-interests by working there to earn money, selling products to customers who are pursuing their own self-interest, purchasing supplies, equipment, etc., from others pursuing their own self-interest. Everyone, by pursuing his/her own self-interest, is taking action to improve his/her own standard of living. No one is directing these interactions, yet these interactions result in an increase in the standard of living of all involved; this is the "invisible hand" raising up all involved.

Free & Competitive Markets. Competitive markets are free from any interference will benefit the ordinary citizen. Because of competition, producers will work to supply the public with better& cheaper goods. This concept also applies to that smartphone you want. There are many producers of smartphones, and all are competing for your purchasing dollar. In order to get you to buy your new smartphone from them, they will make efforts to produce that smartphone better than their competitors and/or cheaper than their competitors. As workers become more productive, they will be able to command a higher wage, giving them more purchasing power. As you continue to work for that fast food restaurant, you become more productive for that employer (performing your job faster with higher quality, improvements in customer service, etc.). That employer will be willing to pay you more for this higher productivity, knowing that you will be able to take those skills elsewhere (possibly to one of his/her competitors). Actions that distort the market will harm the ordinary citizen. Government providing direct benefits to producers (called **subsidies**) or using regulations to restrict competition in order to protect existing producers do more harm than good. This is called **crony capitalism** and is a corruption of free & competitive markets.

Here's an example: imagine that the government implements a regulation requiring all manufacturers of smartphones to be located in the United States, protecting the jobs of American workers in smartphone factories, but prohibiting less expensive foreign (competitor) smartphones from being brought into the U.S. Those American manufacturers would be able to keep the costs of their smartphones relatively high, forcing you to pay more for that smartphone than if you had more choices available. Now, because you spent more on that smartphone, you have less of your money available to spend on any of your other wants and needs, lowering your overall standard of living.

Key Characteristics of a Market Economy

Economic Freedom

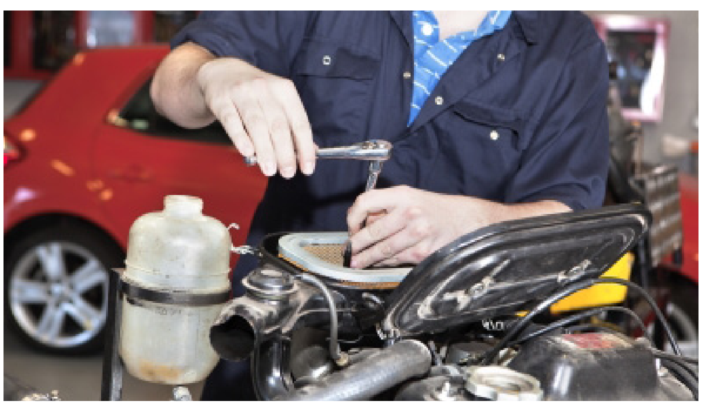
One aspect of economic freedom is the ability to buy what we want from whom we want. If we do not like what one business is selling, we can go elsewhere. Imagine you like pizza. There are a wide variety of pizza places available at which you can satisfy your craving for pizza. If you try one pizza place and you do not like it, you are not forced to continue to take your business there; you can go to a different pizza place.

Another aspect of economic freedom is that we are free to start and run a business or seek any job we choose. As was discussed in Unit 2, command economies will dictate what job you will do.

The needs of the "state" take priority; your desires are secondary. In a market economy, however, you can pursue any job you wish. If you want to be a dentist, you can pursue the education and training you need to become a dentist; no one is dictating your job to you. In a command economy, the "state" also dictates what will be produced in that economy, in effect dictating what businesses will operate in that economy; you do not have the option of starting and running a business. In a market economy, though, you can open any business you wish; if you want to open a shop that sells and fixes bicycles and bike accessories, you can.

Yet another aspect of economic freedom is that businesses are free to make what they want, hire whomever they choose, and set their own wages & prices. The owner of a fast-food restaurant is free to start and operate that fast-food restaurant and determine what he/she wants to put on the menu. The owner is also free to decide which applicants he/she wants to hire for the various jobs in the restaurant. The owner is not forced to hire certain workers. The owner can also determine what he/she wants to pay those workers. Of course, there are minimum wage laws (which will be discussed in Units 4 & 5), but other than that, he/she can set whatever wage he/she desires.

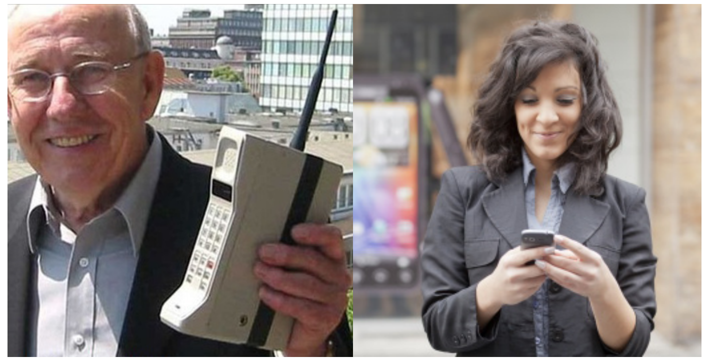
This concept of economic freedom is commonly referred to as **laissez-faire**, which is French for "let them do". This means that economic activity is normally free from government intervention. However, since there are no true market economies, government does interfere to some extent in all economies.



One aspect of economic freedom is the ability to do the job you choose or open and run a business of your choice. If you like to work on cars, you can get a job as a mechanic, and you can even start your own automobile repair business. *(Image courtesy of Marcus at www.freedigitalphotos.net.)*

Competition

Competition is when rival sellers compete for customers' business. They know that potential customers also have other options available to them, so the individual seller will take actions to lure those customers to his/her business. That seller knows that there are two main ways to lure that customer away from competitors to his/her business: 1) offer better products, or 2) offer those same products more cheaply (or some combination of both). As a result, customers benefit from more, newer, and better goods & services to choose from. This is why you have a wide variety of basically every consumer good you would want to buy, everything from socks to automobiles, all with varying styles, features, and price. You have your choice of which item, with which combination of style, features, and price you desire, from a business that offers it.



Competition among cell phone manufacturers for consumers' business has led to improvements in cell phone technology that changed the cell phone from a large, heavy phone with no features which sold for hundreds of dollars (left) to small, lightweight smartphones with numerous features that you can often get for under $100 or even free (right).
(Images courtesy of www.traveltowork.net and adamr at www.freedigitalphotos.net)

One additional benefit from competition is that producers seek to use their resources more efficiently (less waste) in order to lower cost. This translates to lower prices, so consumers benefit again. Consider a pizza restaurant. Most of the ingredients they stock have a limited shelf life; if they aren't able to use those ingredients in pizzas that are ordered, they will have to throw those expired ingredients away. Since they will still have to pay for buying those ingredients, they will have to incorporate the cost of the ingredients they throw away into the pizzas that they actually sell, resulting in needing to charge a higher price for their pizzas. Since they know that the higher prices will probably hurt business, they will try to operate more efficiently and minimize the amount of unused ingredients they throw away, normally through some combination of keeping smaller quantities of ingredients on hand and selling more pizzas that use those ingredients. This allows them to keep the price of their pizzas lower for you.

Equal Opportunity

We are born equal in terms of rights, freedoms, and the opportunity to make the best of our talents & abilities. Discrimination is prohibited.

Binding Contracts

A contract is a legally binding agreement between two "parties" (people, businesses, etc.) to do a specific transaction. For example, you can enter into a contract to buy a car, pay an accountant to do your taxes, or even pay a cell phone service provider to provide you cell phone service. Both sides involved in the contract have to fulfill their ends of the deal. If you sign a contract to get cell phone service, you have to make the payments you agree to make, and the cell phone service provider must provide you the service agreed to in the contract (voice, text, data plan, etc.) with the promised level of quality (reliable connections, etc.).

The legal system must enforce contracts. If not, you would have no reason to expect the other person to uphold their end of the deal. If you could not count on the cell phone service provider to provide you the service agreed to in the contract without any ability on your part to force them to provide you the service as long as you have paid for it, why would you ever get a phone and send them your monthly payment? Likewise, if the cell phone service provider was unable to force you to make the monthly payments on the agreed-to services, why would they ever go through the time, effort, and expense to provide you the cell phone service?

Profit Motive

Profit is the money earned by a business after subtracting the costs of operation. So if a business sells $4,000,000 of its products in a year, but all the costs associated with selling that product (the cost to them of the product, rent, advertising, etc.) is $3,920,000, that business makes $80,000 in profit.

Profit is the *incentive* to work or start/operate business. Profit is also the *reward* for working or starting/operating a business. Starting and operating a business can take huge sums of money. Often, small business owners (all businesses start out small and hope to grow) use their own savings and take out personal loans just to start that business. They also invest massive amounts of time and effort in starting and operating that business. Frequently, they work 70+ hours a week, and are unable to take vacations (or, in some cases, even a day off) so that the business can stay in operation. Why would someone do this if there was no chance of making a profit that he/she could use to provide his/her family their desired lifestyle?

Profit is the *payment for the risk* you take in foregoing another economic activity. As was mentioned in the previous paragraph, business owners risk quite a bit of money, time, and effort, all of which could be put to other uses. These business owners want to get paid for taking that risk. The profit is that payment. Businesses produce goods & services not out of the kindness of their hearts, but in order to improve their economic situation. Those business owners are operating that business because they want to use the money they make from the business (profits) to support them and their family in their desired lifestyle.

Profit is not guaranteed. Just because someone starts a business, there is no guarantee that they will even get one customer, much less enough customers spending enough money to cover the costs of doing business (paying for inventories, paying employees, paying for rent/advertising/insurance, etc.) and possibly return an actual profit to the owner. On average, it takes a typical small business three years to actually start making a profit; until that point, most business owners live off of savings or take an outside job just to ensure they can still pay their own personal bills until the business starts becoming profitable. Also, just because a business makes a profit in one year, that does not necessarily mean it will be profitable the next year. There are numerous factors that affect whether or not a business makes a profit. Some years, the business might do well. In others, the business might not do as well but still be profitable. In other years, the business might actually lose money. Profits in one given year are not a guarantee that the business will even be profitable, much less make the same amount (or greater amount) of profit in the next year.

Profits are not the first thing paid out by the business. Owners are the *last* individuals to receive anything out of the business. All wages, bills, and other business items must be paid before the owner gets anything. If all of the revenue (the money made from sales) gets paid out for employees, inventory, advertising, rent, insurance, etc., and the business does not make a profit that year, the owners will get nothing from operating the business that year.

Profits are the money earned by the business after subtracting the costs of operations. They are the *incentive* to & the *reward* for starting & operating the business. They are the *payment* for the risk taken in starting and operating the business. They are *not guaranteed*.
(Image courtesy Microsoft Photo Gallery)

Property Rights

Property rights mean you have the right to own property. The property can be what is referred to as **real property**, like land, homes, buildings like businesses, etc. The property can also be what is referred to as **personal property**, like cell phones, clothes, cars, etc. The legal system must protect this right. If someone could just take your property from you at any time for nothing in return, what incentive would there be to own or take care for that property? Would you risk investing your life savings and all the time, effort, and money to start and run a business if the government can seize it if it wants to?

Property rights also extend to creations of the mind that have commercial value (called **intellectual property**). A **patent** gives an inventor the sole right to make, use, or sell his/her invention for 20 years. For example, the man that invented popcorn chicken holds a patent for it, and no other company can produce popcorn chicken (and call it that) without permission from him (normally obtained by paying him for permission to make popcorn chicken). A **copyright** gives the creator of a literary or artistic work the sole right to reproduce, distribute, perform, or display the copyrighted work for 70 years beyond the life of the author. Musicians, authors, and script-writers all have copyrights on their material, and no one is allowed to receive economic gain from their work without permission (also normally obtained by paying them for permission to use their work). Without intellectual property protection, what incentive would there be to spend the time, money, and effort to create those things if there was no way to recoup those costs?

Property rights refer to the right to own, use, and even profit from real property (land and improvements on the land), personal property (anything other than real property), and intellectual property (like writing songs).
(Images courtesy of Microsoft Photo Gallery)

Limited Government

Limited government means that, in general, the government does not try to control businesses or compete with businesses. Government intervention is generally limited to the following:

Protecting property rights & contracts. The government establishes and enforces laws and regulations that specifically govern property rights and contracts. It also operates the legal system (court system) where individuals whose property or contract rights were violated go to seek compensation.

Promoting the general welfare. The government establishes and enforces laws and regulations that promote the "general welfare" of the country. This is a vague statement that has been interpreted in numerous ways, and has been seen as meaning everything from simply ensuring that citizens have an equal opportunity to get an education, job, etc., to the government providing cell phones to some citizens free of charge because they believe that everyone in today's society "needs" a cell phone.

Providing projects & programs that benefit society as a whole. The government provides a variety of projects and programs funded by taxpayers. Some examples are roads, national defense, welfare, and unemployment benefits.

Preserving competition. The government establishes and enforces laws and regulations to promote competitive markets. Monopolies (only one provider of a good or service), if allowed to exist, are highly regulated to ensure that they are not taking advantage of their monopoly power and charging customers an excessively high amount for what they provide, and that they do not take actions to limit the ability of competition to enter and participate in that market.

Protecting consumers, workers, & the environment. The government establishes and enforces laws and regulations designed to protect consumers, workers, and the environment. They regulate the safety of consumer products sold in the market (everything from food to vehicles) to ensure product safety They regulate the financial services industry (banks, investments, etc.) to help safeguard your money. Tthey also regulate businesses to ensure you are being adequately informed about and treated fairly in your purchases. They regulate the workplace on everything from workplace safety to wage & hour protection to discrimination issues. They regulate how businesses and individuals can impact the environment, protecting the air we breathe, the water we drink, the land we live on, etc.

Stabilizing the economy. The government establishes laws and regulations with the intent of stabilizing the economy. Their goal is steady economic growth rather that big boom or bust periods. They want to minimize inflation (the general rise in prices) and unemployment.

Key Characteristics of a Market Economy

Economic Freedom

Competition

Equal Opportunity

Binding Contracts

Profit Motive

Property Rights

Limited Government

Specialization

A key concept that is important to a market economy is the concept of specialization. **Specialization** is an approach to production in which individual workers become highly skilled at a specific task. An individual worker focuses only on one part of the overall production process. This results in a ***division of labor*** where each individual performs their specific part of the production process, then passes the product on to the people performing the next step in the production process. A good example of this is the construction of a home. Certain workers specialize in putting in the foundation. Other workers specialize in carpentry (building the framework of the house). Other workers specialize in the following skills: roofing, electrical, plumbing, insulation, installing the drywall on the walls, painting, installing cabinetry, tiling, carpeting, landscaping, pouring concrete for the driveway, etc. One person could theoretically do all of those jobs; however, the quality of the work probably won't be as good as if it was done by someone who specialized in that specific job. Specialization allows the worker to become highly skilled and productive at that specific job. The result is normally higher-quality work done more quickly.

Specialization also applies to businesses & even countries. They focus on what they do best & rely on someone else to do the things they don't do as well.

Specialization Leads to Economic Interdependence

Specialization allows everyone from individuals to entire countries to focus on what they do best. Because they are only doing what they do best, there is an opportunity cost to specialization: they are not doing all the other things they might need to do. For example, an individual who is a skilled chef is probably working as a chef in a restaurant. That individual is probably not growing food, making clothes, building a car to use, or building a house to live in. He/she must rely on someone else to do all those things. Likewise, individuals who actually do those things might want a relaxing evening out at a restaurant for a good meal that they could not prepare for themselves. This is what is meant by **economic interdependence**. Why does economic interdependence occur in a market economy?

1. Specialization Improves Productivity

Each individual business focuses on what they do best and become experts at it. This will allow them to produce more output for a given amount of inputs (land, labor, capital). As a result, more goods & services are available to more people. The standard of living then improves for all in that society.

2. Specialization Encourages Trade

When people/businesses/countries specialize, they no longer produce everything for themselves. They must trade with others for what they do not produce themselves. This allows them to satisfy their own wants & needs. They can also focus on what they do best.

Trade is a voluntary exchange in which both parties give up something in order to get something they want. You give up something because you feel that what you are getting is of greater value to you than what you are giving up. There are two main methods of trade: barter and money.

Barter is a direct exchange of one good for another. For example, suppose you had an iPod® that you no longer needed because you keep all of your music on your smartphone. Someone you know has a jacket that you really like, and they no longer want it because they have outgrown it. You would like to have the jacket, and that person would like to have your iPod®. If you trade your iPod® for the jacket, you have just engaged in barter. The limitation to barter is that it requires a *coincidence of wants* (you have something that I want & I have something that you want). If no one wanted your iPod®, you would not be able to trade it away for something you want more.

Money eliminates the need for a coincidence of wants. As long as everyone is willing to accept the money for items (the concept that money is a **medium of exchange**), you can trade money for an item, and then that party can trade the money for a different item, etc. Money facilitates trade because it is easy to carry & convenient to use. Perhaps someone wants your iPod®, but he/she does not have anything for which you are willing to trade. If that person is willing to pay you money for the iPod®, you can then take that money and buy something else with it.

Trade is a voluntary exchange in whcih both parties give up something in order to get somethingthey want. They can do an item-for-item exchange (barter) or use money as the medium of exchange .
(Images courtesy of www.howstuffworks.com and Microsoft Photo Gallery)

3. Trade Creates Economic Interdependence

You now depend on others to produce the goods & services you no longer produce. You rely on them to trade with you for those goods & services. Those others are in the same position. They rely on you to produce what they no longer produce. They rely on you to trade with them for those goods & services. The result is a complex web of economic links that connect producers and consumers throughout society.

Absolute Advantage and Comparative Advantage

Another key concept that is important to the market economy is the concept of absolute advantage and comparative advantage. Although there are similarities, there are key differences between the two.

Absolute advantage is where one group (individual/business/state/country) can produce a given item cheaper and/or better than another group. A good example of this is production of apples or oranges. Due to climate, Virginia can produce apples much better (and more cheaply) than Florida. Likewise, Florida can produce oranges much better (and more cheaply) than Virginia. Each state could produce the other fruit, but it would be much more costly (need for greenhouses, artificial lighting, etc., to simulate the climate needed for the other fruit). In this situation, 1) Virginia has an ***absolute advantage*** over Florida in producing apples, and 2) Florida has an ***absolute advantage*** over Virginia in producing oranges. Because of this, it makes the most sense if Virginia grows apples for use & to sell to Florida, and Florida grows oranges for use & to sell to Virginia.

Comparative advantage, however, is a little more complicated. Comparative advantage is the ability to perform a task at a lo***wer opportunity cost*** than someone else is able to perform that task. Let's look at the following example of comparative advantage to see how this works.

Example of Comparative Advantage

Two Electronics Factories

Two electronics factories are capable of producing both Blu-Ray/DVD players and video game consoles. Each factory can only have 500 workers working there. Factory A has an absolute advantage over Factory B in both Blu-Ray & video game console production.

Production Capacity for Factory A & B				
Products	Factory A Workers	Factory A Output	Factory B Workers	Factory B Output
Blu-Ray/DVD Players	**200**	**100,000**	**200**	**90,000**
Video Game Consoles	**300**	**60,000**	**300**	**30,000**

For each product, Factory A can produce more of a given item for the same number of workers at Factory B. The total output from these two factories would be:

190,000 Blu-Ray/DVD Players
90,000 Video Game Consoles

Option 1 Factory A builds only Blu-Ray/DVD Players Factory B builds only Video Game Consoles				
Products	Factory A Workers	Factory A Output	Factory B Workers	Factory B Output
Blu-Ray/DVD Players	**500**	**250,000**	**0**	**0**
Video Game Consoles	**0**	**0**	**500**	**50,000**

Factory A, if it only focuses on Blu-Ray/DVD Players, will increase the total number Blu-Rays produced to ***250,000*** (up from 190,000 if both factories produced them).
Factory B, however, can only produce ***50,000*** Video Game Consoles (down from 90,000 if both factories produced them).

Option 2 Factory A builds only Video Game Consoles Factory B builds only Blu-Ray/DVD Players				
Products	Factory A Workers	Factory A Output	Factory B Workers	Factory B Output
Blu-Ray/DVD Players	**0**	**0**	**500**	**225,000**
Video Game Consoles	**500**	**100,000**	**0**	**0**

Factory A, if it only focuses on Video Game Consoles, will increase the total number consoles produced to ***100,000*** (up from 90,000 if both produced them).
Factory B, by focusing on Blu-Ray Players, can increase the total number of players produced to ***225,000*** (up from 190,000 if both produced them).

Opportunity Costs		
Factory	Blu-Ray/DVD Players only	Video Game Consoles only
A	250k Blu-Ray, 0 Game Consoles	225k Game Consoles, 0 Blu-Ray
B	100k Blu-Ray, 0 Game Consoles	50k Game Consoles, 0 Blu-Ray

For Factory A, the *opportunity cost* for each Blu-Ray/DVD Player is **0.9 Video Game Consoles** (225k/250k), and the *opportunity cost* for each Game Console is **1.11 Blu-Ray/DVD Players** (250k/225k).
For Factory B, the *opportunity cost* for each Blu-Ray/DVD Player is **0.5 Video Game Consoles** (50k/100k), and the *opportunity cost* for each Game Console is **2.0 Blu-Ray/DVD Players** (100k/50k).

Factory A has a ***comparative advantage*** over Factory B in producing Video Game Consoles. The *opportunity cost* for each Video Game Console produced by Factory A is *lower* (1.1 Blu-Ray) compared to Factory B (2.0 Blu-Ray).

Factory B has a ***comparative advantage*** over Factory A in producing Blu-Ray/DVD Players. The *opportunity cost* for each Blu-Ray/DVD Player produced by Factory B is *lower* (0.5 consoles) compared to Factory A (0.9 consoles).

By each factory focusing on what it has a comparative advantage in, society benefits with more of each item available for the labor available. This turns out to be the most efficient use of the limited resource (labor), and more of both products will be available to society.

Another Example of Comparative Advantage: An Eye Surgeon

Imagine you are an eye doctor who paid your way through college washing cars. Now you have a car of your own. Should you wash it yourself or pay someone to wash it for you? Suppose you could wash your car more quickly than the person you hire (absolute advantage). Would your limited time available be better spent washing cars on in the operating room saving people's eyesight? Even though you have an *absolute* advantage in both activities, you have a *comparative* advantage in doing eye surgery.

Entrepreneur

Still another key concept in a market economy is the role of the entrepreneur. **Entrepreneurship** is a specialized form of human capital. An **entrepreneur** is someone who starts, owns, and operates a business. The entrepreneur acquires and arranges the allocation of productive resources to provide a product or service.

Imagine you wanted to open a clothing store. You would be an entrepreneur. You would open the store in a desired location (land). You would decide on how many employees to have (labor) and would hire them. You would purchase inventories, get cash registers, display racks, clothes hangers, etc. (physical capital). You would determine how much to spend on these, as well as how much to spend on advertising, electricity, insurance, etc. (financial capital).

Roles of the Entrepreneur

Innovator. An entrepreneur is an **innovator**. He/she thinks of ways to turn new inventions, technologies, techniques, or ideas into goods or services that people want.

Strategist. An entrepreneur is also a **strategist**. He/she supplies the vision and makes key decisions that set the course for business enterprises.

Risk Taker. An entrepreneur is also a **risk taker**. He/she takes on the risk of starting new business. He/she is the one investing time, energy, abilities, and his/her own (and often other people's) money, with no guarantee of success.

Sparkplug. The entrepreneur also is the **sparkplug** for his/her business. He/she supplies energy, drive, & enthusiasm needed to turn ideas into realities.

Characteristics of Successful Entrepreneurs

Ambition. Successful entrepreneurs tend to be highly motivated with the ability to see the big picture & stay focused on the end result. They set goals for themselves & never stop striving to achieve those goals.

Self-Confidence. Successful entrepreneurs believe in themselves. They feel certain that they can accomplish what they set out to do.

Willingness to Take Risks. Successful entrepreneurs are not afraid to risk their time, money, & energy on an idea.

Energy & Self-Discipline. Successful entrepreneurs thrive on hard work. They are willing to sacrifice in other areas to focus on their business (vacations, free time, etc.).

Perseverance. Successful entrepreneurs don't give up. They may have setbacks or experience failure along the way, but they still keep going.

Problem-Solving Ability. Successful entrepreneurs have the ability to come up with solutions to problems.

Organizational Skill. Successful entrepreneurs are able to manage time, resources, and people effectively and efficiently.

Ability to Motivate Others. Successful entrepreneurs are good at inspiring others to join their team.

Steven Wozniak (left) and Steve Jobs (right) started Apple Computer, Inc. (now simply Apple, Inc.) in Steve Jobs's garage. Their aggressive application of the roles and characteristics of entrepreneurs are what has made the growth of Apple, Inc. possible.
(Photo courtesy Apple, Inc.)

Why Do Entrepreneurs Do What They Do?

Personal Satisfaction. When you run your own business, you get to be your own boss. You set your own hours. You also get to do something that makes you happy.

Contribute to the Economy. The service an entrepreneur provides the local economy helps the local area. Generally, that entrepreneur's business provides jobs for others in the local area.

Profit Motive. Obviously, entrepreneurs hope to make money to provide themselves and their family the lifestyle they want.

Profit

Yet another key concept for a market economy is the concept of **profit**. Profit is calculated using:

Revenues. Revenues are the money made from selling the products produced. The total dollar value of a business's sales is its revenues.

Expenses. Expenses are the costs of production, the expenses incurred from the production of the products sold, the cost of the inputs of productive resources (natural, human, capital). This is a wide variety of expenditures, including the cost of the inventory a business might sell to its labor costs, property expenses, insurance expenses, advertising expenses, and even taxes and fees.

Profit is calculated as follows:

Profit = Revenues – Expenses

As was previously discussed in this unit, profit is the incentive and reward for starting and operating that business. The owner's scarce resources (time, energy, money) have alternative uses. That owner could work for someone else and not have to deal with the demands on his/her time and energy. He/she could take the money that he/she has put into the business and do something else with it (invest, spend, save, etc.). That money could be invested in the stock market or other type of investment. It could be saved for the future, including retirement. It could even be spent on a new car, a vacation, a child's college education, or numerous other spending possibilities.

There is risk associated with starting and operating a business. The owner hopes the reward (profit) will outweigh the risk. The profits, though, are not guaranteed. Many businesses lose money and go out of business, often depleting the life savings of their owners and forcing them to sell their house, car, and anything else they can sell in order to help pay off the business's debts. The owner only gets paid (profits) after everyone else (employees, suppliers, landlord, etc.) are paid. The business owner is legally obligated to pay those people, and if that means that nothing is left over for him/her, then that is the risk he/she takes.

Example of Profit Calculation and the Effect of an Increase in Productivity on Profits

Imagine you are running a pizza restaurant. You can sell your pizzas for $10.00 each. You have the costs of production shown below. You can make a profit of $3.50 per pizza ($350.00 for every 100 pizzas you sell).

Example of Calculating Profit*

Revenues:		
Sales: 1 pizza		$10.00
Costs of Production:		
Pizza cook labor costs (1 pizza every 5 minutes @ $12.00/hour wage)	$1.00	
Ingredients	3.00	
Box	0.50	
Driver labor costs (15 min per delivery @ $8.00/hour wage)	2.00	
Total costs of production		6.50
Profit per pizza		**$3.50**

* Note: this profit only reflects the costs that can be directly attributable to the making of the pizza, and does not include other expenses such as rent, advertising, insurance, taxes, etc. (called ***overhead expenses***). This profit amount is normally referred to as ***gross margin***. Total profit is normally calculated by adding up all sales, then subtracting all costs of production and overhead expenses.

Profits for Selling 100 Pizzas

Sales Revenue	
100 pizzas X $10.00 per pizza	$1,000.00
minus	
Costs of Production	$650.00
equals	
Profit	**$350.00**

Suppose you can increase the productivity of your pizza cook through training, reducing the time to assemble a pizza from 5 minutes to 2.5 minutes. You also change the way you dispatch drivers and are able to improve their productivity, reducing the delivery time from an average of 15 minutes to 10 minutes. You would be able to increase your profit per pizza from $3.50 to $4.67, which would result in an additional $117 in profits for every 100 pizzas sold.

Effect of a Productivity Increase

Revenues:		
Sales: 1 pizza		$10.00
Costs of Production:		
Pizza cook labor costs (1 pizza every 2.5 minutes @ $12.00/hour wage)	$0.50	
Ingredients	3.00	
Box	0.50	
Driver labor costs (10 min per delivery @ $8.00/hour wage)	1.33	
Total costs of production		5.33
Profit per pizza		**$4.67**

Revised Profits for Selling 100 Pizzas

Sales Revenue	
100 pizzas X $10.00 per pizza	$1,000.00
minus	
Costs of Production	$533.00
equals	
Profit	**$467.00**