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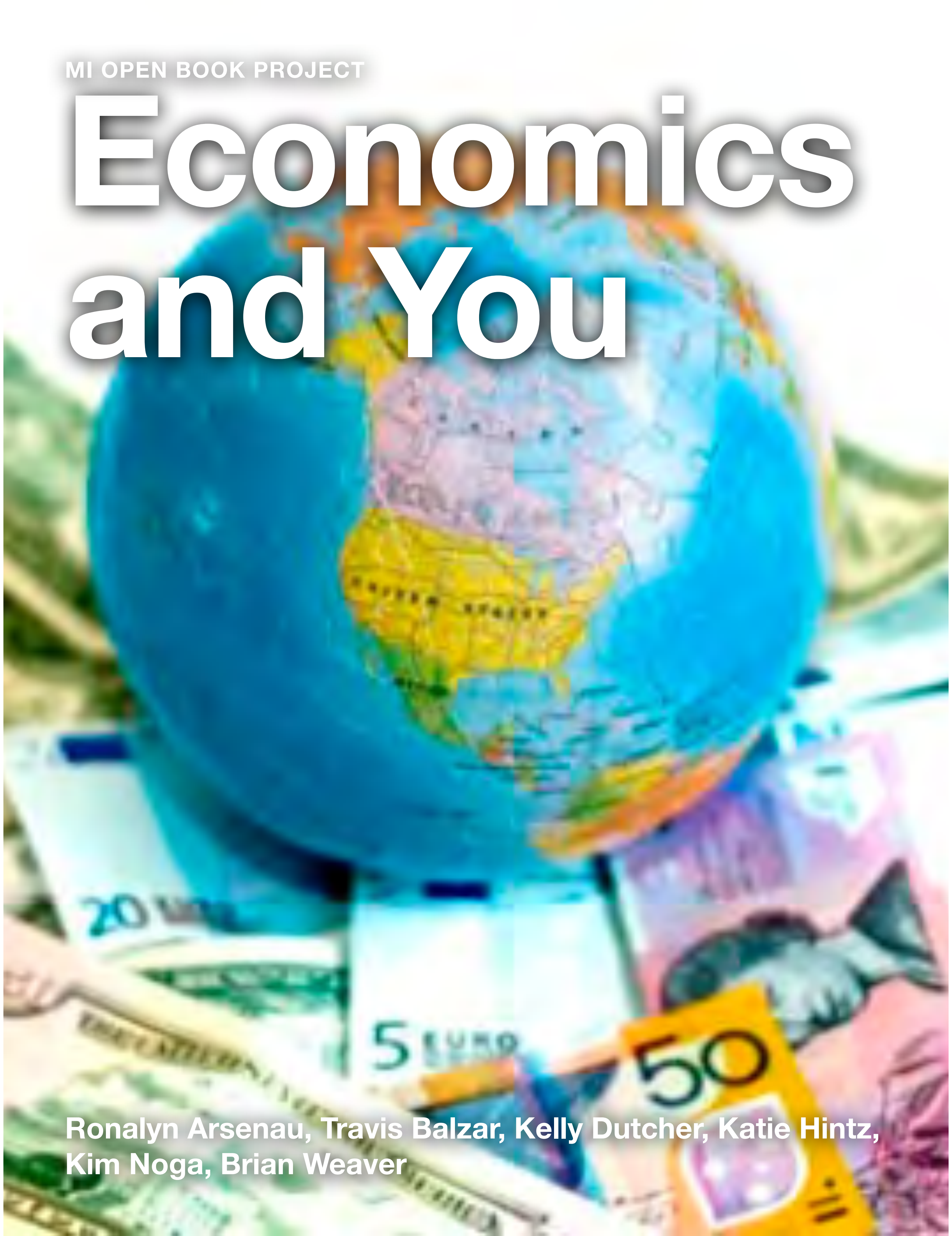
Economics and You



Ronalyn Arsenau, Travis Balzar, Kelly Dutcher, Katie Hintz, Kim Noga, Brian Weaver

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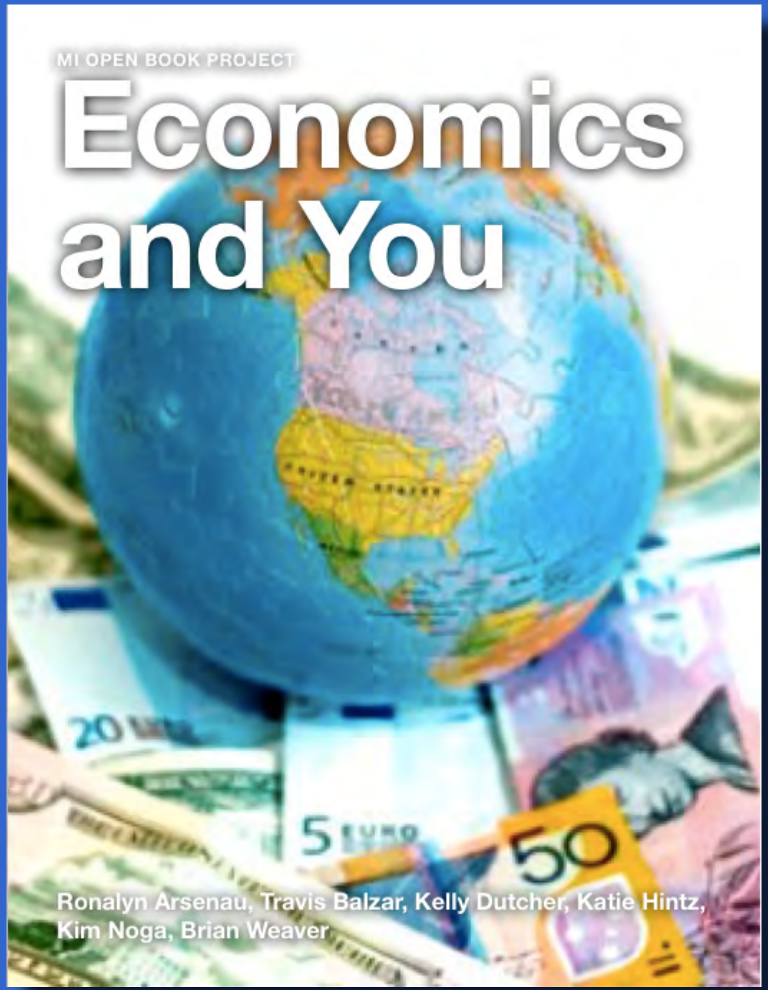

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Information on the latest version and updates are available on the project homepage: http://textbooks.wmisd.org/dashboard.html

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Ronalyn Arseneau teaches Economics and Business at Westwood High School in Ishpeming. She is a member of the State Executive Board of the Michigan Business Education Association, serving as Vice-President for Membership. She and her husband, Barry, enjoy traveling to spend time with their three children and their grandson.

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Travis L. Balzer is a Shepherd High School social studies teacher concentrating in Economics, Civics and History. Mr. Balzer (Mr. B) resides in Shepherd with his bride Haley, and daughters Makayla and Mia Jean. A Gladwin High School graduate. Parents Vicki and Teddy reside in Gladwin. Travis' sister, Kristal and two sons, Isaac and Adam reside in the Lansing area. Mr. Balzer earned an Economics and Management degree from Albion College and proceeded to obtain teaching certification from Saginaw Valley State University in Social Studies. In addition, obtaining a masters in Educational leadership from Grand Valley State University. Hunting, exercising including P90X, biking, running

Kelly Dutcher

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Kelly Dutcher teaches Economics, Civics, U.S. History, and College Readiness at Harbor Springs High School. Aside from teaching, she is also a Michigan Youth in Government advisor, and class of 2017 sponsor. Mrs. Dutcher is a graduate of Lake Superior State University where she received her BS in Social Studies and Secondary Education. She is currently working towards receiving her MA in American History and Government at Ashland University, and will spend a month this summer as a James Madison Memorial Fellow studying in Washington D.C. Kelly loves teaching at the high school level, and helping bring social studies to life for her students. She shares her life with her husband Jordan and three joyful girls: Daphne, 5; Audrey, 3; Meredith 2.

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Katie is completing her seventh year as a teacher at Gladwin High School, where she has taught every Social Studies course available, including: American Government, Sociology, Current Events, World History, Economics, Social Problems in the United States, and Law. A graduate of Saginaw Valley State University's Secondary Education Program, she majored in History, minored in Sociology and earned a Social Studies Endorsement. As Social Studies Department Chair, she was inspired to participate to the Open Book Project because of the disjointed resources that most economics teachers are forced to scrape together to create a captivating curriculum.

Currently, she is working on completing her Masters in Global History at with American Public University. Her final thesis on the Food Industry is due to be published September,

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Kim has a B.A. in History/ Social Studies and an M.A. in Curriculum and Teaching, both from Michigan State University. For the past 14 years she has been employed at Ionia High School where she teaches Economics, U.S. History, and Humanitarian Studies. Her hobbies include reading and traveling the world.

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Big Rapids High School

Mr. Weaver has been teaching high school social studies for fourteen years. After one year at New Directions Alternative High School in the Big Rapids Public Schools he moved to Big Rapids High School where he has taught US History & Geography, American Government, World History & Geography, Economics, Geography, Psychology, and Modern Social Problems. Before becoming a high school teacher, Mr. Weaver worked in higher education as a development officer and administrator. As Director of Development for Ferris State University he oversaw fund raising activities for Kendall College of Art and Design and served as Director of the Kendall Foundation. In ten years of service at Northern Michigan University he served in a variety of development posts including Director of Development Research and Director of Annual Giving. Mr. Weaver caught the teaching bug during his service in the Peace Corps on the central Philippines island of Leyte where he taught in a two-room school house. His many interests include reading, woodworking, and home improvement

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Chapter 1

The Fundamentals of Economics

QUESTIONS TO GUIDE INQUIRY

1. What are the most influential principles of a market economy?
2. What factors influence decision making?
3. How does scarcity impact the decisions individuals and groups make?
4. How do resources travel through our economic system to address the problem of scarcity?
5. Why does everyone experience scarcity?
6. In what situations should a cost benefit analysis be used?

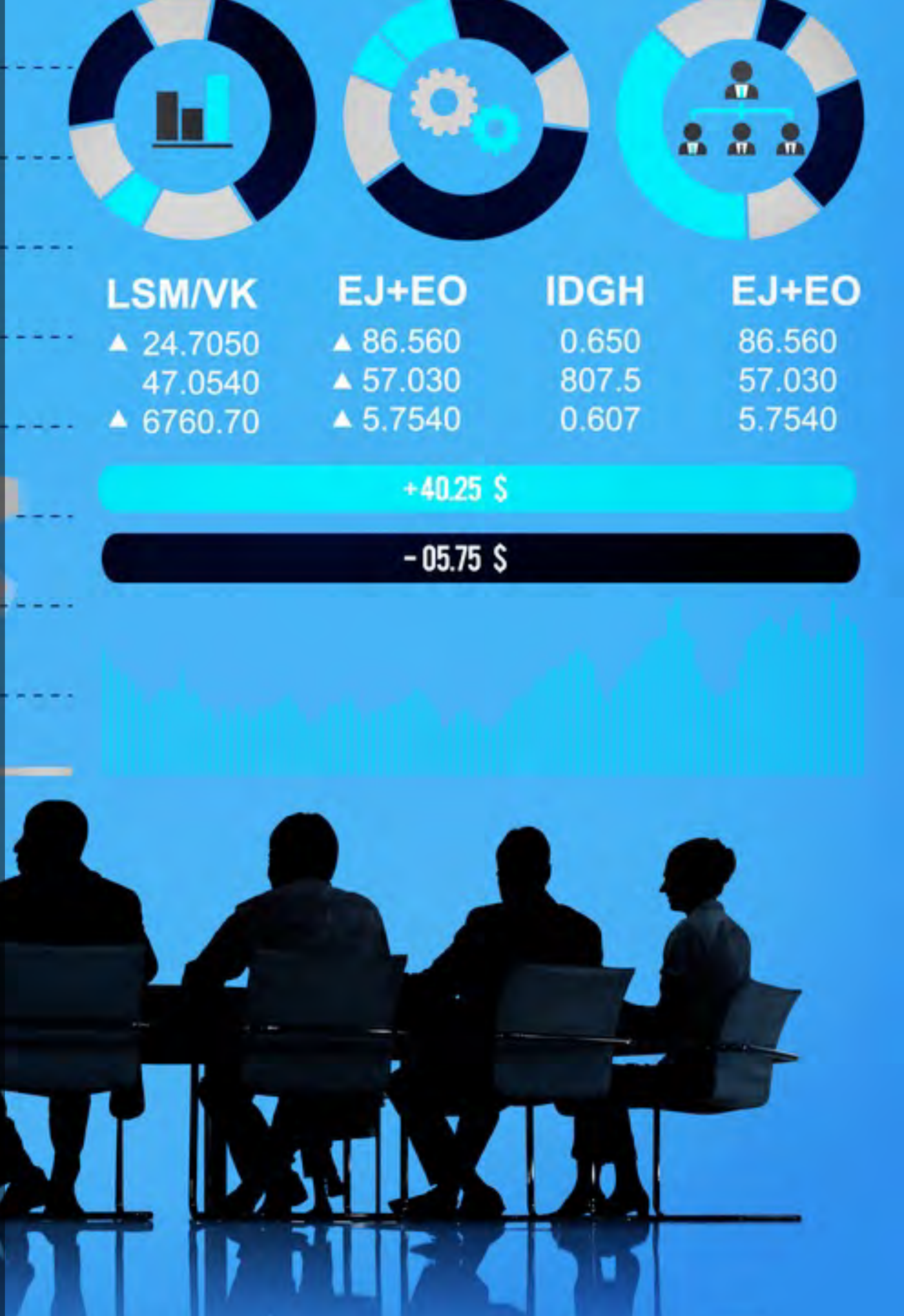
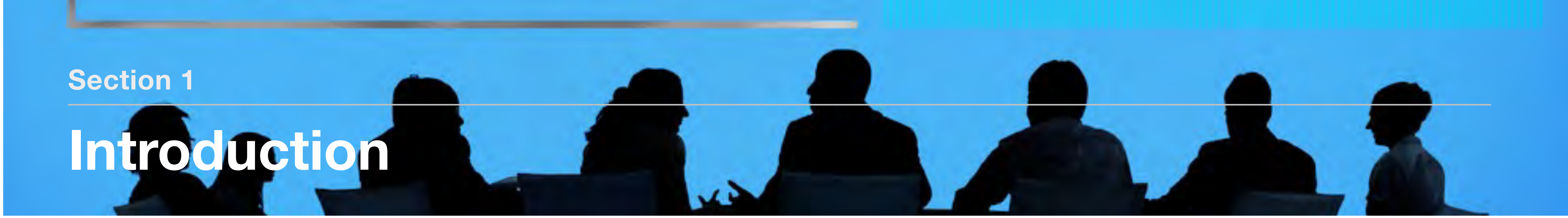


Image source: Shutterstock/Rawpixel



Section 1

Introduction

QUESTIONS TO GUIDE INQUIRY

1. **What are the most influential principles of a market economy?**
2. **What factors influence decision making?**
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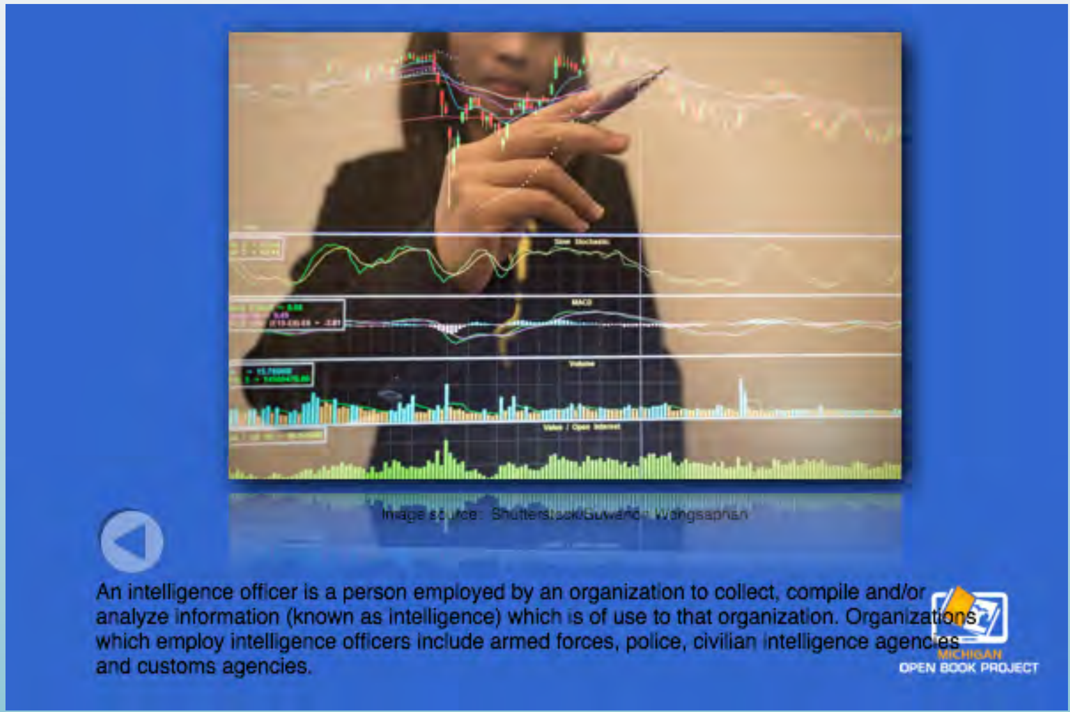
Understanding economics will help to make you a more successful person. Economics is a broad subject, just like any academic topic, that can be pursued from undergraduate programs at the university level, all the way to doctoral programs that require upwards of seven years of research to complete. However, our goal is to give you the most important basics of economic thinking so that you can not only earn an “A” in your high school economics class, but also learn how to be a more effective earner, saver, spender, and citizen.

Much of what economics has to teach us is based off of common sense assumptions that any observant person could conclude. A lot of what economists do is collect and analyze data from the economy so they can come up with generalized theories and models to explain and predict human behavior. That’s not to say there won’t be any confusing vocabulary or concepts that take extra effort to understand - but once you have mastered those ideas, you will be able to more confidently explain economic phenomena occurring in your community, state, nation, and the world as a whole. Not to mention, having an above average grasp of the relationship between the government and economy will help you to make the most beneficial decisions for your future when it comes to making major purchases, investing in education, and saving for retirement.

Interactive 1.1 Economic Careers



View this gallery to learn about some economic careers. Information source: https://economics.byu.edu/Pages/Career-Options.aspx

Corny joke: How many economists does it take to change a light bulb? We'll never know. They're all too busy debating how to most efficiently get the job done. It's funny because it's true.

Economics is considered to be one of the disciplines under a broader subject area category known as social science. While all of the social science disciplines such as history, geography, civics, psychology, and sociology to name a few, help us understand why the behaviors we see happening in society occur, the economic lens focuses on the financial motives behind decisions that are made. This includes the study of economic behavior and decisions in a nation's whole economy which is known as macroeconomics as well as the study of economic behavior and decision making in smaller units, such as households and firms which is known as microeconomics. In order to understand why decisions are made or to predict what actions will occur in the future, thinking like an economist is a must. Some of the important questions that economists often ask are listed below. You will probably find yourself asking some of these same questions as you ponder specific economic concepts and ideas throughout your economics course.

Essential Questions for Thinking Like an Economist

Important Principle #1: People Choose

Accompanying Question: How do limited productive resources influence choice?

Important Principle #2: All Choices Involve Costs

Accompanying Questions: What are the possible costs of making a particular choice? What is the opportunity cost of a particular choice?

Important Principle #3: People Respond to Incentives in Predictable Ways

Accompanying Questions: What incentives do you have for making the choices you make? How would your choice change if the incentives were different?

Important Principle #4: Economic Systems Influence Individual Choices and Incentives. There are several economic systems and each has its own rules that determine what is produced, how it is produced, and for whom it is produced.

Accompanying Question: How do your choices, incentives, and behaviors change as the rules change?

Important Principle #5: Voluntary Trade Creates Wealth

Accompanying Questions: How does voluntary trade create wealth?

Why do people specialize in the production of certain goods and services?

Important Principle #6: The Consequences of Choices Lie in the Future

Accompanying Questions: What are the future results of the choice you make today?

What could be the unintended consequences of this choice?

Section 2

Thinking Like an Economist

QUESTIONS TO GUIDE INQUIRY

1. **What are the most influential principles of a market economy?**
2. **What factors influence decision making?**
3. **How does scarcity impact the decisions individuals and groups make?**
4. **How do resources travel through our economic system to address the problem of scarcity?**
5. **Why does everyone experience scarcity?**
6. **In what situations should a cost benefit analysis be used?**

Economists all observe and present the same data, but often come to different conclusions and have different suggestions on what should be done to help the economy or individuals. There's data on the number of people who are unemployed, the national debt, calculations on the total amount of cash spent in an entire year in our nation, and even on the projected stock value of Facebook. Even though economists are using the same data, they sometimes come up with very different conclusions about what the data means, and thus how to best react to it. How is this possible? Some economists are employed by universities, the government, or think tanks. A lot can be inferred about someone's perceptions based on their political beliefs, who they associate with, and what their motives are. With that in mind, always be a critical consumer of information. Don't automatically take someone's summary of a problem or prescription to solve it at face value. A good economist, like any other discipline-specific social scientist, always asks questions to seek accuracy, discover flawed logic, and propose alternative solutions.

Fundamental Economic Concepts

Scarcity

Scarcity is the fundamental problem of all life, and is the essential dilemma in the study of economics. Scarcity, or being scarce, is the issue of having not enough of something. We have all experienced scarcity because every person, no matter how intelligent, rich, or good looking (like the authors of this book), must decide how to spend their finite resources. Eventually money runs out, times runs out, or both. Even if you don't measure your wealth in terms of money, whatever brings you utility (i.e., benefit) will come at a cost that results in you having to make a choice. Choices are something we all make every day as a result of scarcity, but there's more information about cost to come in the next chapter.

Factors of Production: Land (Natural), Labor (Human), Capital, and Entrepreneurship

Depending on which economics text you read, you may come across three or perhaps four factors of production. Factors of production are also sometimes referred to as the means of production or productive resources, but they are ultimately the components necessary for producing a good or service. A good is something tangible that we consume after it has been produced (e.g. cell phone, pair of jeans, fast food hamburger). A service is something someone provides to you that can't necessarily be touched, but gives you benefit enough that you are willing to pay for it (e.g. a haircut, manicure, internet provider).

In order to make any conceivable good or provide any service in today's economy would likely require a resource from each category. First, let's define the four factors of production and then apply them to the production of a good or service.

1. Land - Natural Resources

Natural resources are any of the renewable (e.g. trees, solar energy, cattle) or nonrenewable (e.g. fossil fuels, precious metals) resources that come from the earth. Ultimately all resources are finite if not harvested or utilized in a sustainable way.

2. Labor - Human Resources

Humans provide **labor**. Labor can be physical, mental, or likely a combination of the two. For instance, a contractor must have the requisite knowledge to adequately organize blueprints, work within building code regulations, as well as how to operate complicated tools. Contractors also use physical labor to build by using their bodies to construct projects according to those plans. Consider: Are the skills a surgeon must use mental, physical, or both?

3. Capital

Capital refers to the man-made resources that assist workers in the production of a good or service. Buildings, factories, tools, and money are all examples of capital resources that enable people to provide the highly refined products produced today in the 21st century.

4. Entrepreneurship

Interactive 1.2 Factors of Production Practice

Use Google Docs to answer the questions in this online handout.

Entrepreneurs are the people who are able and willing to organize the other productive resources and provide their own investment despite the risk in order to produce a good or service. Entrepreneurs are often considered "risk-takers," but successful entrepreneurs calculate their risks very carefully and weigh the risk against the potential benefit before investing their money in a project.

Interactive 1.3 Additional Practice

For additional practice in identifying how the four productive resources are used to provide the variety of goods and services in our economy, read either of the two articles linked below and identify as many productive resources as you can that are used to provide the means to create the end products. Or, you can find your own article that profiles a specific business and do the same thing.

Economic Models

Economists use economic models to graphically demonstrate the concepts and theories they develop to explain human behavior and decision making.

Production Possibilities Curve/Frontier

A production possibilities curve, or frontier, is a tool used to demonstrate how productive one can be in making two goods with a set number of resources. For example, imagine you have homework assigned to you tonight in your math and English classes. You estimate that it will take you 2 hours to complete your math assignment and 2 hours to complete your English assignment. However, after you break down your evening, you realize that because of practice after school, the hours you have to work at your job, chores you have to get done at home, and the bedtime set by your parents, you only have an hour to work on homework. Because your time is scarce, you have to make a decision. You have to choose to either finish half of your math, or half of your English, or finish an even smaller portion of each. Whichever homework assignment you decide to work on, or even if you do a little bit of each, you are making a tradeoff that can be represented in the table below.

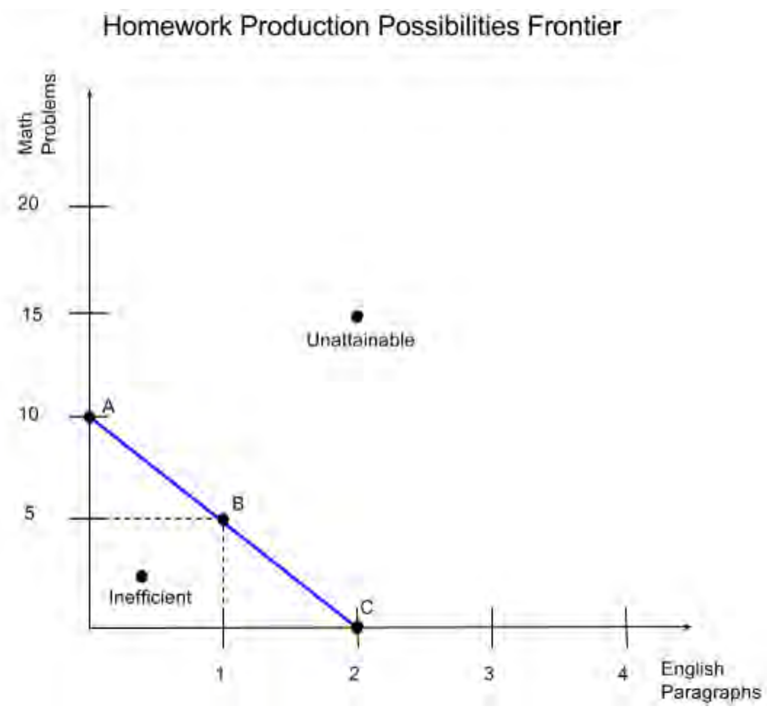
You have been assigned 20 problems in Math class and 4 paragraphs to write for English class. If you choose to do half of your math it will take an entire hour, and so you will have not written any paragraphs for English. If you decide to write two of the paragraphs for English, then you will not be able to finish a single math problem. If you decide to spend half of an hour on your math and half of an hour on english, you will have completed 5 math problems and 1 paragraph.

Homework Dilemma

Production Possibilities Frontier Schedule

Points	Math Problems	English Paragraphs
A	10	0
B	5	1
C	0	2

This can be graphically represented in a Production Possibility Frontier by plotting the points onto an axis:



What is being demonstrated in the PPF (Production Possibilities Frontier) is your ability to "produce" either math or English homework. You can produce homework at any of the points on the PPF, but you cannot, given your current resources of time and academic ability, produce beyond the frontier. Think about where the "unattainable" point is located on the graph. You also would not want to produce less than what you possibly could because then you would hurt your grades even more, such as the point inefficient. If you are fully maximizing your current resources and use your time appropriately, you produce anywhere along the frontier curve. These facts presented to you in the PPF model are based on four key assumptions:

1. Only two goods can be produced: (math and English homework)

2. You are using all of your resources to their fullest capacity: (your time and ability)

3. Your resources are fixed: (you are limited to 1 hour of work time)

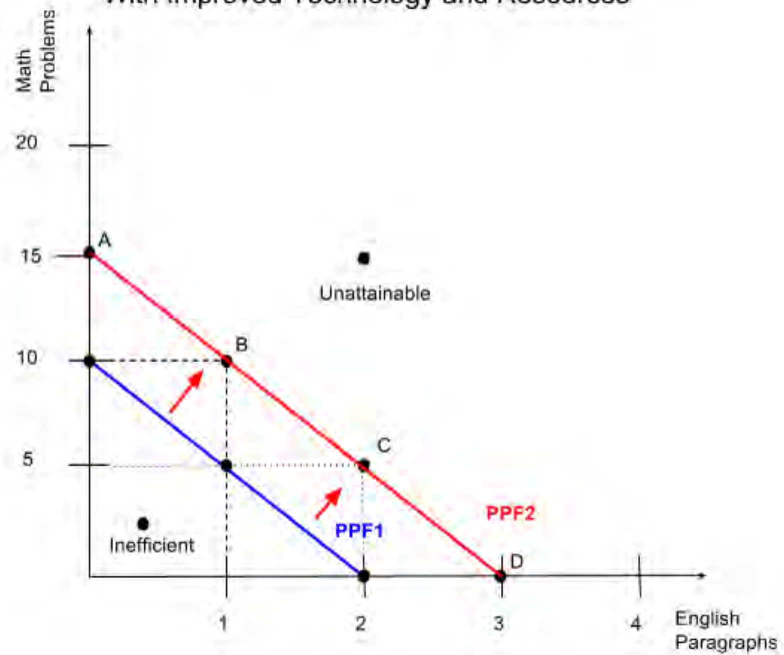
4. Your technology remains the same.

If you were able to either get more resources, or improve your technology, you might be able to improve your production possibilities. For instance, let's pretend in the above scenario, it would have taken you a full hour to get your math done because you forgot your calculator at school, and it would have taken a full hour to write your English because you were handwriting it instead of typing in on a computer. If you improve your resources and technology (using a calculator and a computer), you would be able to improve your production of homework. Now, in the space of an hour, you can complete all of your math homework, and get 3 paragraphs done for English as well. Or, you could get all of your English homework done, and finish 15 math problems. You're still not able to finish all of your homework, but you have increased your production possibilities. This is demonstrated below.

New Production Possibilities Frontier Schedule with Improved Technology and Resources

Points	Math Problems	English Paragraphs
A	15	0
B	10	1
C	5	2
D	0	3

Homework Production Possibilities Frontier
With Improved Technology and Resources



Circular Flow Model of the Economy

Below you will see many examples of economic models that are all showing the same thing: the circular flow of money and resources in an economy. Some of the models are more detailed than others, but they are all simplified versions of the exchanges that take place in an economy. Exchanges of money, resources, goods and services take place every day between consumers and producers, and this is demonstrated in the Circular Flow Model. In every model there are a few basic components that are fundamental to understanding this diagram. These are explained below.

Image source: http://www.freestockphotos.biz/stockphoto/14444

Households

The Household component describes the consumers who live in the United States. Households include all of the individuals in our economy who demand and consume goods and services provided in product markets. Households are also important in the Circular Flow Model because they not only purchase goods and services, but they provide labor, or human resources, necessary to produce goods and services. Households provide their labor to businesses in the Resource Market and purchase goods and services in the Product Market (see below).

Image source: http://upload.wikimedia.org/wikipedia/commons/8/8d/Factory_1.png

Businesses/Firms

Sometimes referred to as businesses, and other times as firms, this component of the Circular Flow Model is responsible for the production of goods and services in the economy. Businesses demand resources such as labor from households in the Resource Market and sell goods and services in the Product Market.

Image source: http://commons.wikimedia.org/wiki/File:Now_Hiring.png

Resource Market

Resources markets are where businesses can purchase the necessary resources they need to make their product. Likewise, individuals are able to sell their resources, the main one being labor, in resource markets. Although other resources such as land and capital, can be bought and sold here as well. Money is traded for resources in the resource market.

Product Market

Image source: http://commons.wikimedia.org/wiki/File:Shop.svg

The product market is where businesses have the opportunity to sell the goods and services they have produced to households. Businesses earn revenue from selling their goods and services to households in the product market. Businesses are only able to produce these goods and services after having acquired resources from the resource market. Money is traded for goods and services in the product market.

Below you will find a variety of Circular Flow Models that are all different, but basically demonstrate the same concept: Money circulates in an economy in exchange for goods, services, and resources . This model will be useful in later units to help you understand how households, businesses, and markets are dependent upon one another to meet their needs.

Example 1:

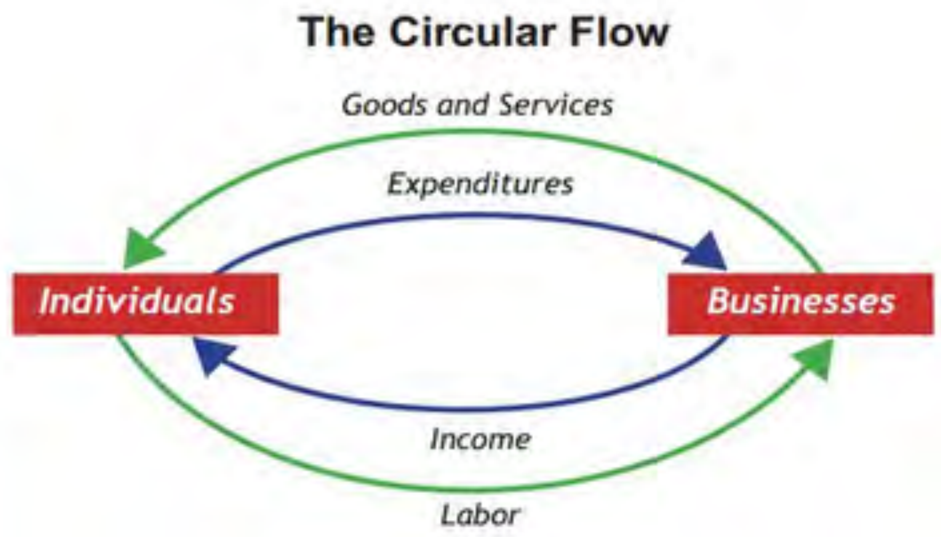


Image source: http://en.wikipedia.org/wiki/Circular_flow_of_income#/media/File:Circular_flow_of_income_and_expenditure.jpg

This Circular Flow Model doesn't include the product and resource markets. It only shows that individuals, or households, exchange directly with businesses The green arrows are showing that individuals provide labor to businesses, which are then turned into goods and services that are sold back to the individuals. The blue arrows are showing the exchange of money for labor, goods and services. Specifically when individuals are providing labor, they are receiving money in the form of "income." Whereas, when individuals spend that money on goods and services they perceive that money as "expenditure," or expenses.

Example 2:

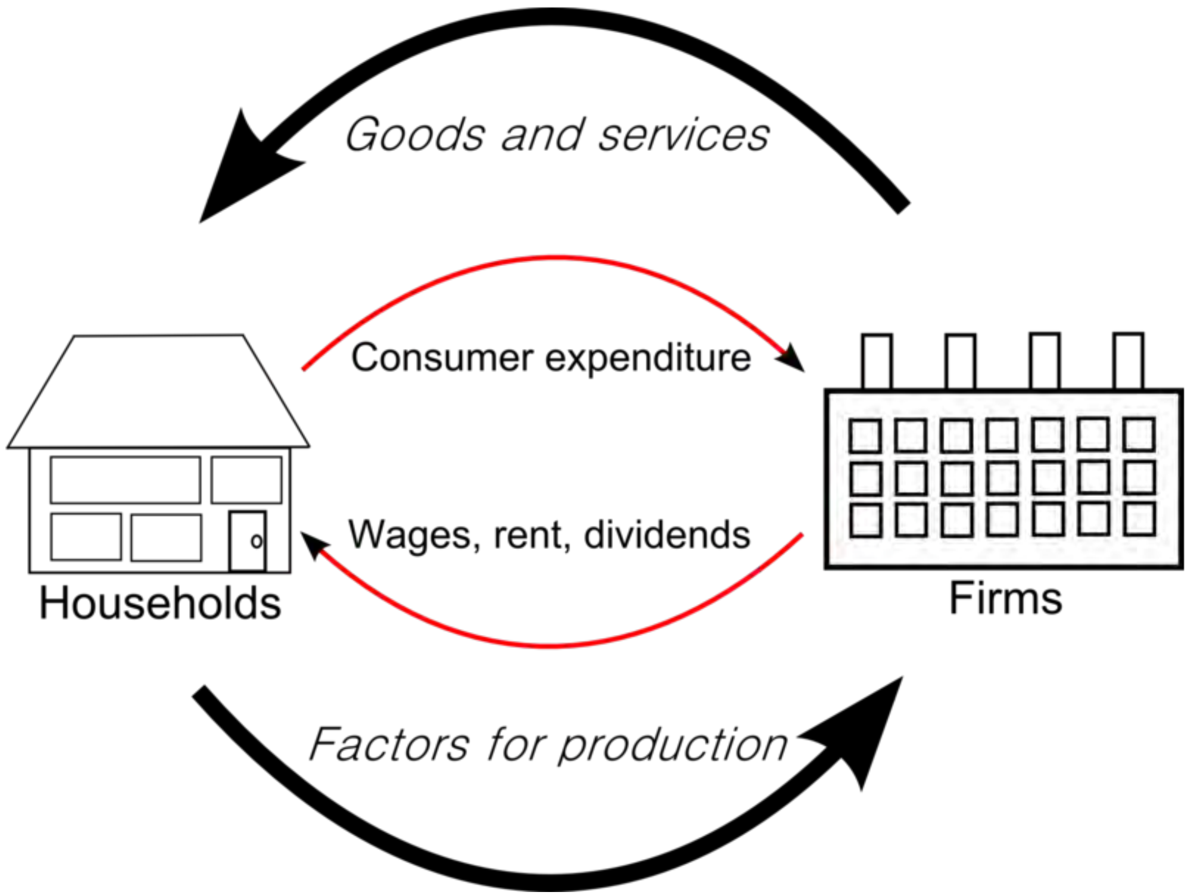
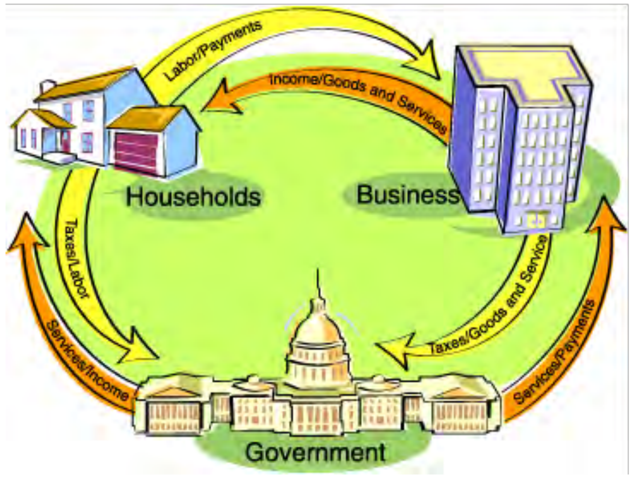


Image source: http://commons.wikimedia.org/wiki/File:Circular_flow_of_goods_income.png

In this Circular Flow Model, again there is no product or resource market. The black arrow are showing the exchange of goods and services and the factors of production (land, labor, capital) between firms and households. When households provide the labor to the firms, or businesses, they receive money that they perceive as wages. The business also pays out money in the form of rent and dividends to those who provide other factors such as land, and investment. When households purchase goods and services from the firms, that is considered to be consumer expenditure because they are consuming those goods/services and the money they pay for each is an expense.

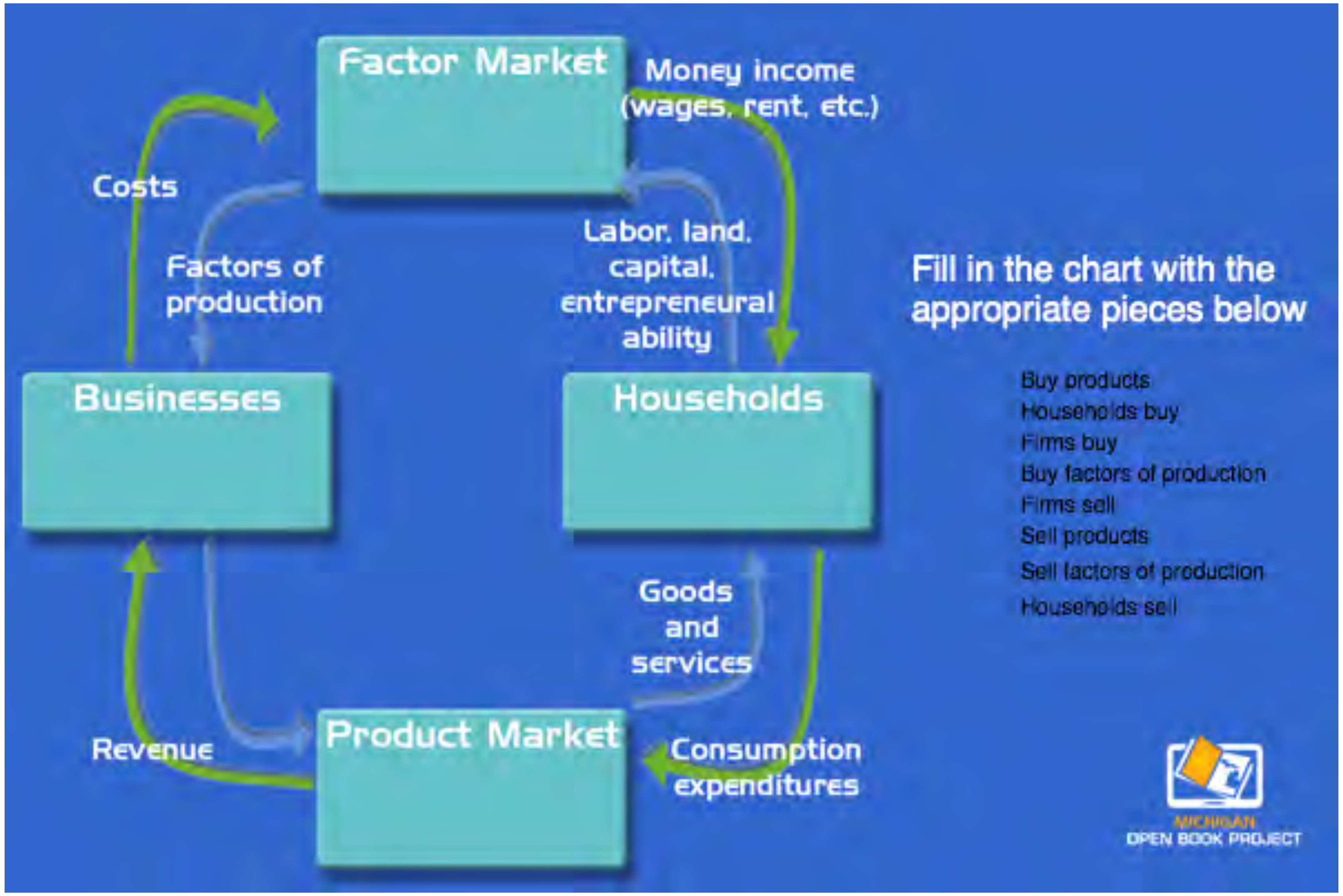
Example 3:



http://upload.wikimedia.org/wikipedia/commons/c/cf/Economics_circular_flow_cartoon.jpg

This model does not include product or resource markets, but does add in the government, which also exchanges money and goods and services within our economy.

Interactive 1.4 The Circular Flow Model



Know the Flow? Fill in this chart with the appropriate pieces!

Section 3

The Role of Choices in Economics

QUESTIONS TO GUIDE INQUIRY

1. **What are the most influential principles of a market economy?**
2. **What factors influence decision making?**
3. **How does scarcity impact the decisions individuals and groups make?**
4. **How do resources travel through our economic system to address the problem of scarcity?**
5. **Why does everyone experience scarcity?**
6. **In what situations should a cost benefit analysis be used?**

You make choices every day, most of these are economic decisions.

When you woke up today, you made a variety of decisions. For example, should you hit snooze and sleep 10 more minutes? Should you eat breakfast first or take a shower first? Should you eat a breakfast sandwich or skip breakfast? Should you ride the bus, or try to ask an adult to drop you off on his or her way to work? Each of these choices was made in a way that ultimately benefited you in some way. In general, people make choices to make themselves better off, either temporarily or in the long run. As economist and author Charles Wheelan states, “Economics starts with one very important assumption: Individuals act to make themselves as well off as possible… individuals seek to maximize their own utility [usefulness], which is a similar concept to happiness, only broader.”

One decision the authors of this book made this morning was to eat breakfast; One of them ate a bowl of oatmeal and blueberries with a homemade cup of coffee. These may seem like simple choices but each step of their breakfast decision was made for a reason. Sure, they would have been happy with a substitute, maybe a large mocha and cream filled donut from the local bakery. But, when they made their decision they were considering other factors in the choice as well. So why did they decide on a simple breakfast at home? Simply put, they wanted to save time, money, and be more healthy.

Your choices are made with an economics lens in mind. All people, no matter how wealthy or impoverished, must make choices because of scarcity. For example, in the scenario above, you couldn't eat breakfast first and take a shower first. You had to choose. You can't have everything that you want; your wants are unlimited, while your resources to satisfy those wants are limited. Some of your wants are necessities-- you need food, water, and shelter-- others are to make you happy, like a new pair of shoes.

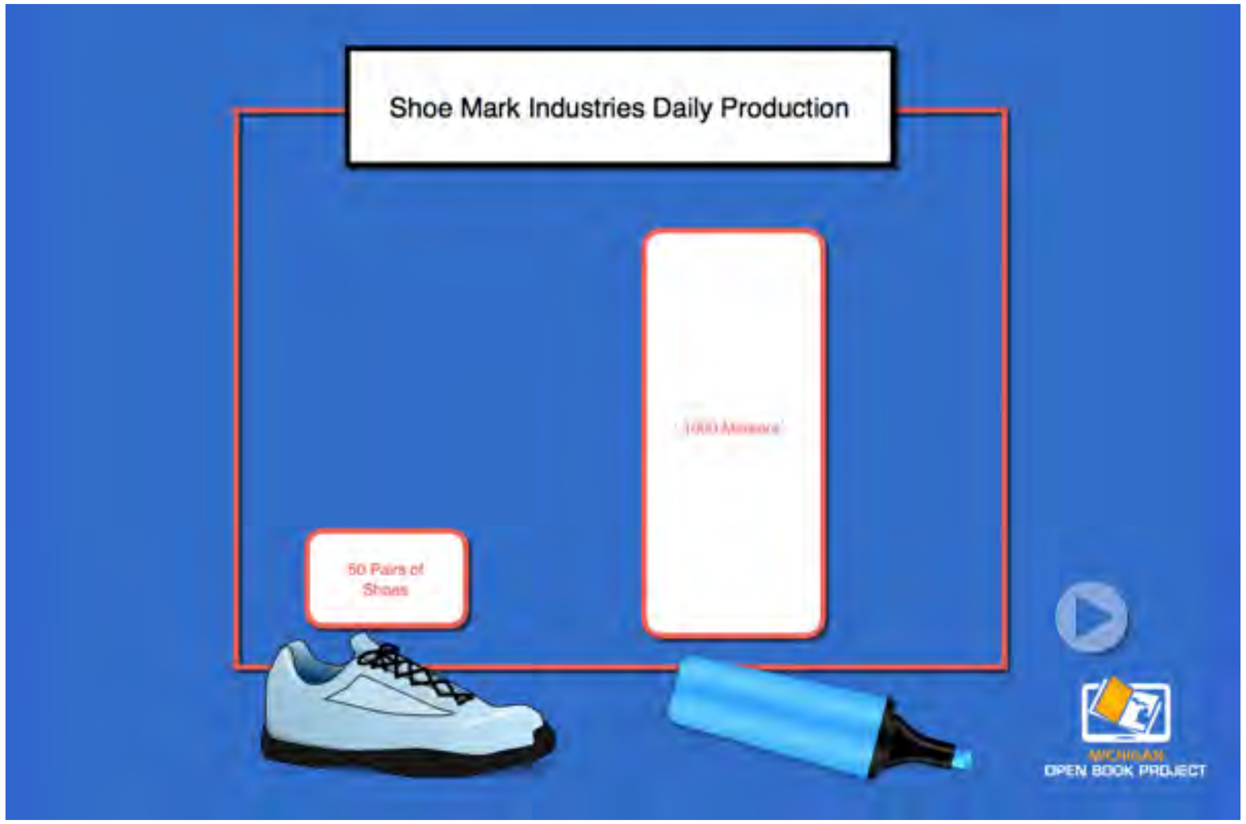
Scarcity is a concept at the center of economics. As Economist Thomas Sowell puts it, "The first lesson of economics is scarcity: There is never enough of anything to satisfy all those who want it..." The key idea of scarcity is that a person will never be able to have everything that he or she wants. Individuals will always desire more; more time, more money, more goods. Even the wealthiest men in America, such as Bill Gates and Warren Buffett, can't have an endless supply of everything they want. And, even if they could afford it, they would not have enough time to use it all. The bottom line is, the condition of scarcity forces decision making.

When a choice is made, **opportunity cost** and trade-offs are produced. Common sense tells us that whenever you make a choice, you are choosing between two or more things. In economics, those other options have a name. A trade-off occurs when one benefit is given up in order to gain another. For example, let's say that Friday night you have the choice of going to the movies or seeing a concert. If you chose to go to the movies, the trade-off was giving up the chance to go to the concert. Keep in mind that trade-offs can involve choosing between things that can be easily measured like money, time, or sometimes property. However, sometimes values that are not so easily measured like enjoyment come into play with trade-offs.

When thinking about trade-offs, it is important to think about opportunity cost. The opportunity cost of something is the most desirable alternative of all of the alternatives that was given up in the decision-making process. For example, let's revisit our Friday night scenario and even though you are still choosing to go to the movies, let's add a few more alternatives to the mix. Let's say that in addition to going to the movies or seeing a concert there are three other realistic alternatives--volunteering at a local soup kitchen, visiting your favorite grandparent, and working at your part-time job at a fast-food restaurant. If, in your mind, your next best alternative is seeing your favorite grandparent, that becomes your opportunity cost. If your next best alternative is working at your job, that is your opportunity cost. Opportunity cost will vary from person to person as we all have different wants and needs.

Opportunity cost is important to understanding Production Possibility Frontiers (possibly link to Chapter 1 explanation of PPFs). To better demonstrate this, let’s look at an example. If a business has the opportunity to produce a combination of shoes and markers, the production possibility may look like the graph in the widget below.

Interactive 1.5 Opportunity Cost Visualized



See Opportunity Cost in action in this slideshow.

Thinking at the Margin

When economists look at decisions they often will take a little extra time to determine and consider an additional characteristic to opportunity cost. The process of deciding how much more or less to do or produce by adding or subtracting one unit such as a unit of time (an hour perhaps) or a unit of value (a dollar for example) is referred to as **thinking at the margin**. The process of thinking at the margin allows economists to use an additional tool to assist in making the most productive or beneficial decision possible. As an individual consumer, you can utilize the process too. For example, each night you sleep. That is a choice, but when you decide how long to sleep, it is considered thinking at the margin. You decide whether the benefit of sleeping 30 minutes more will outweigh the cost. Exercise is another time we see the concept in practice. When exercising, you decide how much time to allocate to a given activity. If you are running, you may choose to run for 30 minutes. This is because the marginal benefit of running 10 more minutes (40 total) isn’t worth the marginal cost (33% more work).

A place we see marginal analysis in society is when the government provides assistance to low income families. The food assistance program is one way the government provides assistance; families and individuals can apply and qualify for food benefits. But what is the right amount of food assistance?

Should each family in need of assistance receive $70 per month, or should they receive $700? The government should analyze carefully, and choose a place where the marginal benefit exceeds the marginal cost.

Image source: https://upload.wikimedia.org/wikipedia/commons/b/b9/Chocolate_Chip_Cookies_-_kimberlykv.jpg

Economists agree that not all cookies are valued equally. Another factor that goes into thinking on the margin is the law of diminishing marginal utility. Simply put, as the quantity of a good or service you consume increases, the happiness you get from the next increased unit is generally lower than the unit before. For example, if I offered you a chocolate chip cookie, you would probably be happy. However, you will be happier with one cookie the first time I give you one, than you will be if I give you ten cookies and offered you an eleventh. Overall, you may be happier with the eleven cookies, but most likely, the eleventh cookie won't be as valuable to you as the first, second, or third. This is the law of diminishing marginal utility

Cost/Benefit Analysis

Another decision making process involves doing a cost/benefit analysis. Employing this process is simple--you compare what you will sacrifice and what you will gain to help make a decision. Weighing marginal costs--the extra cost of adding an additional unit against marginal benefits--the extra benefit of adding the same unit can be an extremely helpful process. One of the primary tools used to assist make a choice is a **Cost Benefit Analysis**. On the analysis-- a T shaped chart-- costs are on one side, and contrasted against benefit on the other side. Costs are what is given up in terms of money, effort, and other sacrifices to gain something else. While benefits are what is gained from a decision in terms of money, time, experience, and other improvements.

This tool can be as simple as the chart below. After analysis of the costs and benefits, what would your suggestion be to your friend Sam if he asks for your advice?

The analysis allows a decision maker to put a value or worth on inputs and outputs of a decision that aren't generally quantifiable. See the suggested method here:

Interactive 1.6 Cost Benefit Analysis

Another place we see cost benefit analysis at work is on Election Day. Multiple times a year, citizens go to the polls to vote (chose) based on their individual cost benefit analyses. For example, a city may place a measure on the ballot that asks voters to decide if they support the idea of building a new community pool. On a simple level, who doesn't like a new pool?   But, the decision isn't as simple as it seems. First of all, there are different costs involved for the various residents and stakeholders in the city. Different citizens will value the pool differently. Consider: renters, homeowners, business owners, people who own their own pools, people who are afraid of water, families with, and families without children. Each group has different costs and benefits.

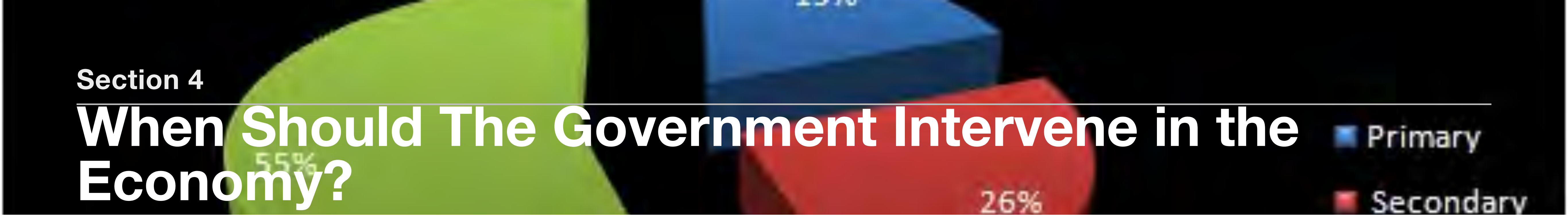
Collectively voters come together and make decisions based on their individual cost benefit analysis. Some analyses are more detailed than others, but eventually each voter makes a decision based on whether the cost and tax burden justifies the benefit received in having a new community pool.

When facing a decision, a rational individual will choose an action if the value of the perceived benefit exceeds the value of the perceived cost; they will not choose an action if the value of the perceived cost exceeds the value of the perceived benefits.

On a much more complex level, a 1985 Texas A & M study showed how a cost-benefit analysis can aid in decisions regarding highway improvements. The study used a Speed-choice model, looked at highway versus secondary road use, and calculated the chance of an accident. Read more here:

So, is there a wrong way to make a choice? Let's take you, for example. Why are you reading this textbook? To learn economics, prepare for future education, in order to obtain the job of your dreams? Or to earn credit in economics class so you can graduate from high school? Because a teacher told you to do so? I figure some students are choosing not to read at all, because the cost--in this case, reading outweighs the benefit of learning. Ultimately each student reading this text is reading to make himself or herself better off. And because the collective benefits gained from choosing to read, exceed the costs of time and effort.

Interactive 1.7 Cost Benefit Analysis



Section 4

When Should The Government Intervene in the Economy?

QUESTIONS TO GUIDE INQUIRY

1. **What are the most influential principles of a market economy?**
2. **What factors influence decision making?**
3. **How does scarcity impact the decisions individuals and groups make?**
4. **How do resources travel through our economic system to address the problem of scarcity?**
5. **Why does everyone experience scarcity?**
6. **In what situations should a cost benefit analysis be used?**

Now that you've read the first few sections, you're probably feeling like you have a solid foundation of basic economic concepts in the discipline of economics, right? Well, you're off to a great start but now, let's work on honing some of your general knowledge and application. Economics is a vast subject that branches off into a multitude of specialized areas of study. The two major branches that are the focus of this chapter are **microeconomics** and **macroeconomics**.

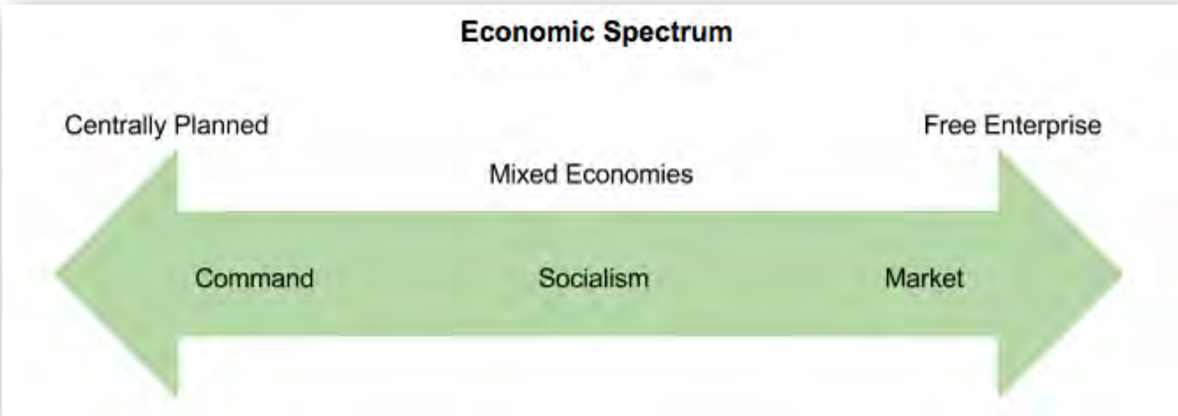
The prefix "micro" means "small," which appropriately describes microeconomics as it is focused on closely examining a specific business, industry, individual, or market. "Macro" means "overall" or "large-scale," which is exactly what the study of macroeconomics is trying to get at: how do all of the choices made by consumers, firms, and businesses relate to an entire economy?

Examples of questions asked by micro-economists and macroeconomists:

Microeconomist Questions:	Macroeconomist Questions:
• How many more pairs of running shoes will Nike choose produce next year if the expected price increases to $275.00 a pair? • What impact will a government subsidy on "Green technologies" have on producers of solar panels? • How will consumption in brick and mortar stores change with increased markets available online?	• What causes the swings in the unemployment rate for the nation? • What enables a country to experience a faster rate of economic growth as opposed to another country? • How will the Federal Reserve increasing the money supply affect the economy? • How will the economy be affected if the government spends more on social programs and taxes its citizens more?

As you can tell by the questions, microeconomists tend to be focused on the specific workings within a particular market. Macroeconomists are asking much broader questions that force them to be general in the conclusions they make about the overall function and operation of the economy. Both microeconomic and macroeconomic study have their uses, but in attempting to understand the social goals of a country, macroeconomics is the most useful.

Every country on this planet has a unique economic system that attempts to create a stable environment for its citizens. There are approximately 196 countries in the world, and so technically there are at least 196 different economic systems in operation. That's not counting the underground economies and local economies that are operated out of plain sight. However, to keep things simple, economists have established two economic systems: **Market systems** and **Command systems**. Each of these in its pure form is an extreme on the economic spectrum, but in reality, fails to exist entirely in isolation of the other. More accurately, all nations operate under a "mixed economic system" that emulates certain characteristics of each type of economy to varying degrees. Below is an image that attempts to demonstrate the connectedness of the systems, rather than completely separating them. Where do you think the United States falls on this spectrum? China? Germany?



In a pure command economy, rather than businesses and individuals, because the government owns the means of production, they determine what to produce, how to produce it, and who gets it once it has been produced. This is an incredibly difficult and complicated process that limits the free will of the people living within its rules. Central planners (government officials) make decisions based on what they believe is best for the population.

In a pure market economy, there is no government intervention. The prices of goods and services are entirely set by the demand and supply of what is available. This is known as the "price system." Thus there is competition amongst buyers and sellers in a market economy. Buyers are trying to outbid other buyers by offering a higher price. Whereas sellers are competing with other sellers by offering lower prices and/or higher quality goods and services.

Command Economy	Market Economy
Pros: Focused on the equity of people by controlling wages and keeping them relatively the same to everyone else. Government provides employment, income, medical care, and housing. Many public services are made widely available because the government provides them freely to the people. There is no unemployment because everyone is appointed work by the central planners. Command economies tend to be more stable in that they do not experience the same economic downturns in a market economy.	**Pros:** Consumers have significant choice because there is such a wide variety of goods and services made available by the various firms Individuals and firms specialize in their trade and are able to produce more and more sophisticated products while increasing productivity and competition. There is a lot of economic freedom as individuals are able to decide for themselves what they want to purchase, and where they want to work. Individuals are paid according to their ability and resources they are able to offer.

Command Economy	Market Economy
Cons: There is little consumer choice because the government is inefficient at directing all of the thousands of intricate layers of an economy. Individuals are all treated equally economically regardless of their skills, knowledge, or abilities. Command economies do not experience the same levels of rising economic growth that market economies do. They are much more stagnant as there is no real incentive to innovate or improve production. Everything is government owned, and so hard work does not pay off to the individual.	**Cons:** The government provides no safety net for individuals when they become unemployed, suffer a health complication, cannot find work, or suitable housing. The economy governs itself, so there are no protections for consumers or firms if they make unwise investments or purchases. Market economies are less stable in that they regularly have ups and downs in their business cycles. Sometimes they experience periods of immense growth, and other times they experience depressions that result in high unemployment, inflation, and a decline in economic growth.

Regardless of what type of economic system a nation has, there are three questions that each must answer. How the nation answers that question determines whether it is a more market or command-leaning economic system. The three economic questions are:

Three Fundamental Economic Questions		
1. WHAT	What is to be produced?	Given the resources a country has at its disposal, it could make any great number of things. Who decides how an economy is going to utilize those productive resources to produce things determines whether the economy is more command or market.
2. HOW	How are those goods and services going to be produced?	In a market economy, businesses decide how goods and services are going to be produced. They hire in labor as they see fit and pay accordingly. In a command economy, the government plays a large part in directing certain people to be responsible for producing goods and providing services, and is likely to set a wage that is very similar to other wages for different work.
3. WHOM	For whom goods and services going to be produced?	This is a question that focuses on who is going to receive the goods and services that are being produced. In a market economy, this would be largely determined by the consumers who can afford to purchase the goods and services they demand. In a command economy the government would decide who receives which goods and services.

What is to be produced?

Given the resources a country has at its disposal, it could make any great number of things. Who decides how an economy is going to utilize those productive resources to produce things determines whether the economy is more command or market.

How are those goods and services going to be produced?

In a market economy, businesses decide how goods and services are going to be produced. They hire in labor as they see fit and pay accordingly.

In a command economy, the government plays a large part in directing certain people to be responsible for producing goods and providing services, and is likely to set a wage that is very similar to other wages for different work.

For whom goods and services going to be produced?

This is a question that focuses on who is going to receive the goods and services that are being produced. In a market economy, this would be largely determined by the consumers who can afford to purchase the goods and services they demand.

In a command economy the government would decide who receives which goods and services.

Whether a nation's economy is labeled as a market or command economy is determined by who makes these decisions. In a market economy, most of the decisions are made privately by consumers and firms about what to produce, how to produce it and who receives it. In a command economy, all decisions are carried out by government officials. As stated earlier, most economies are mixed, where economic decisions are sometimes made by individuals and private firms, while others are put in place by government officials.

Economic Goals

Countries go about attempting to create stability for their economy by fulfilling various economic goals. While all societies work toward each of the goals listed below to some extent, societal values are the differentiating factors that determine to what degree each goal is pursued. Economic efficiency, freedom, security, equity, and growth are all values that determine to what extent the economic players are involved, and since countries do not always agree on what the most important economic goals are, some goals are more valued than others. Below is a brief explanation of each economic goal. As you read through the chart, contemplate which goals would be more important to a market economy--which would be more important for country with a command economy?

1. Economic Efficiency

Efficiency is focused on making sure that available resources are used to the fullest extent to produce the most wanted goods and services demanded by the people. When an economy is efficient, it is organized, and maximizes production.

When an economy isn't focused on efficiency, it may be more wasteful in the utilization of its resources and less responsive to the demands of the people.

2. Economic Equity

Equity refers to promoting fairness. To ensure equity, a government may redistribute wealth among its citizens. This means the government may tax wealthier people at a higher percentage than the rest of the population and then provide social welfare programs to the poorer populations. Low income families would receive assistance in terms of food stamps, cheaper housing, medical care, or qualifying for education grants.

When an economy isn't focused on equity, it would do little to ensure that the poor or lower-income population have access to the goods and services readily available to those who can easily afford them.

3. Economic Freedom

Freedom in an economic sense means that one is able to make decisions about what goods and services to buy or sell, and how to live without any restrictions by a governing body. Obviously complete freedom would be problematic because potentially harmful trade would be legal, putting the safety of citizens at risk. For this reason, no economy can be entirely free.

Economies become less free when they tax more, restrict certain forms of trade, and control the means of production.

4. Economic Growth

Growth in an economy is measured by a continual increase in the production of goods and services. As a result of economic growth, the standard of living improves, meaning people are making more money, the population is able to grow, and education levels rise.

Countries that lack economic growth tend to be inefficient with their resources and lack of feeling of optimism about the future. Without adequate economic growth these countries face problems with their security as well.

5. Economic Security

A country that provides a high level of economic security alleviates the fear individuals might feel when it comes to the occurrence economic risks over which an individual has very little control. For example, if a country were to suffer a natural disaster, or go to war, experience massive unemployment, individuals would want to know that they are going to have their needs met so they can provide for themselves and their families.

Countries that lack economic security usually have no safety net available for those who are affected by forces outside of their control. These systems lack government programs like food stamps, unemployment benefits, public housing, and Social Security. Without these programs in place, those who are affected by such events have little chance of surviving on their own financially.

6. Economic Stability

Stability comes when three major measures of economic well-being are met:

1. The economy is consistently growing.

2. Unemployment rates are relatively low and consistent.

3. Prices are maintained at the same level.

Countries that lack economic stability will experience harmful swings that discourage people from spending money in their economy which stalls growth and improvement. As demonstrated in chapter 1 with the Circular Flow Diagram, if any part of the economic cycle begins to slow down, it affects all of the other parts creating a vicious cycle.

Based on the information above, is the United States a market, command, or mixed economy? Visit the following website and study the heat map that demonstrates the economic freedom of different countries throughout the world. Which are more likely to be market economies? Which are more likely to be command economies?

Interactive 1.8 Heat Index

The final portion of this section is modified from High School Economics, National Council on Economic Education, “Broad Social Goals of an Economic System,” (9-19).

Chapter 2

Choices in Individual Households

QUESTIONS TO GUIDE INQUIRY

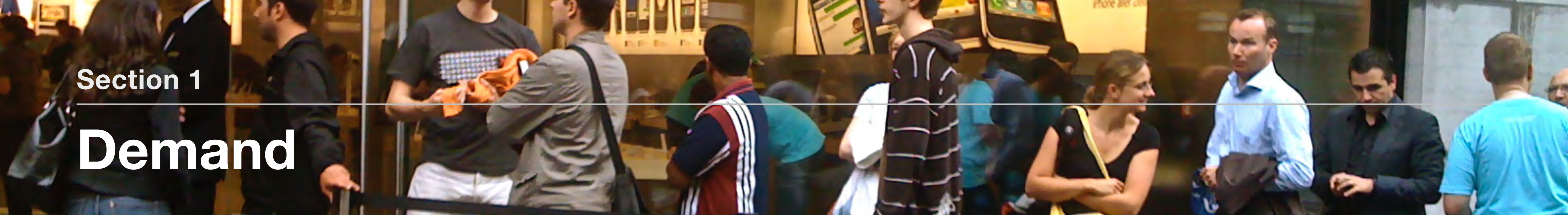
1) Demand- What are markets? What factors influence consumers purchasing decisions?

2) Supply- What factors influence the production decisions of producers?

3) Price- Collectively, how do consumers and producers work to determine price?

4) Market Structures--How does competition impact the choices you make as a consumer?

Image source: Shutterstock/Rawpixel



Section 1

Demand

QUESTIONS TO GUIDE INQUIRY

1. **Demand- What are markets? What factors influence consumers purchasing decisions?**

In this economics unit you will explore how buyers and sellers meet together in markets to trade. Also you will look at the process of how prices are determined. Next, you will take a special look at what equilibrium is in economics as well as how it responds to a change in certain factors that affect supply or demand. Finally you will be asked to judge the fairness and efficacy of how equilibrium is reached in current American markets.

Demand

How do we as individuals make economic decisions? Due to scarcity, we know that we have economic decisions to make each and every day. We must decide what we are going to spend our limited resources on, and where we are going to make those purchases. These decisions are impacted by many factors. So the main economic question we will be asking ourselves is this: Given limited resources, how do we, as individuals, as well as businesses, use trade-offs to make the best economic decisions possible?

Microeconomics is the study of factors that affect the economic choices of individuals, households, and businesses, as well as how changes in these factors can affect these decision makers, and how prices are determined in the marketplace. Throughout this chapter each factor will be explored in detail in order for you to answer the following questions:

- What are markets?
- What factors influence consumers purchasing decisions?

Image source: Shutterstock:/ Den Rise

•This is Paul. Gas prices affect him because he has to pay for his own gas from the money he makes at a part-time job he has while attending school. When gas prices are high, he can't afford to drive to school and back every day, and he can't go where he'd like to with his friends on the weekends. When prices go down, he doesn't worry as much about the cost of driving."

Think about how gasoline prices impact your driving decisions. Do you drive less and purchase less gasoline when the cost of gasoline is high?

Interactive 2.1 The Law of Demand

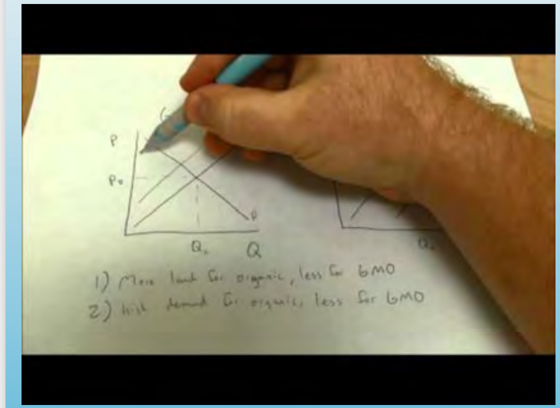
Learn more about the Law of Demand in this video.

Demand is the desire to own something coupled with the power to obtain it. If both conditions don't exist (desire and ability), demand does not exist. Simply put, **the law of demand** states that consumers will purchase more of a good when the price of the good is lower and less when the price of the good is higher. Bottom line: no matter what your income is, the price of a good that you desire is a strong influence on your decision whether or not to purchase it.

Substitution Effect

The **substitution effect** takes place when a consumer reacts to a rise in the price of one good by consuming less of that good and more of a substitute good. The substitution effect can also apply to a drop in prices as well--the good in which the price has dropped may become the substitute good. As you can see, the substitution effect can impact demand. Keep this in mind as you watch how substitute goods impact the illustration of changing demand in a graph:

Interactive 2.2 The Substitution Effect



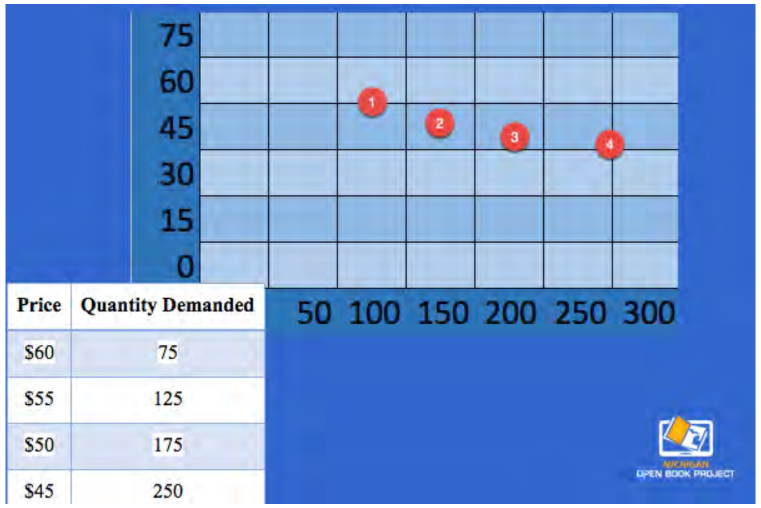
Learn more here!

We can create a demand schedule based on the various prices people will pay for an item. We can then use this demand schedule to create a graph of demand for the item at various price points. Quantity demanded represents individual points on that demand graph. Demand, on the other hand, refers to the entire demand curve at all price points.

Let's look at an example of a demand schedule and graph.

A new video game was recently released, and the following is a demand schedule, which is a table that shows how many video games people will buy at a given price. As the price goes down, you will notice that the quantity demanded increases. Similarly, as the price goes up, the quantity demanded decreases.

Interactive 2.3 Demand Curve In Action



Watch this tutorial to learn how to create a demand curve.

Quantity demanded is represented by each individual point on this demand graph. Demand, however, constitutes the entire demand curve, or all of the points taken together. A demand shift will move the entire demand curve to the right or to the left. For example, if a new video game is released that uses innovative technology that no other game on the market has, then demand could increase, which would shift demand to the right. On the other hand, if the game system that this video game is played on is replaced by a newer system with more functionality, the demand for this video game would shift to the left. These are known as demand **determinants**,

When an increase in demand occurs, quantity demanded would increase at every price level, so the entire demand curve would shift to the right. When demand decreases, the entire demand curve would shift to the left, so there would be fewer quantity demanded at each price level. A shift of the demand curve to the left indicates a decrease in demand, while a shift to the right indicates an increase in demand across all price points.

Some examples of situations that would cause demand shifts include: improvements in technology, an increase (or decrease) in consumer income levels, anticipated substantial product price increases, an increase or decrease in the number of buyers of a product, and a decrease in the availability of related products.

ACTIVITY:

Price per Bike	Quantity Demanded
$1200	75
$1000	100
$900	120
$750	150
$650	175

Using the chart above, plot the demand chart either electronically using Google Docs, or on a separate sheet of paper.

There are situations that occur that change the entire demand curve, not just the quantity demanded at a certain price point. For instance, if an individual were to win a high profile mountain bike race using this brand of mountain bike, the entire demand curve might shift to the right, with the quantity demanded increasing at every price point. We would label this new demand curve D1. This new demand curve constitutes an increase in demand.

If, on the other hand, there is a defect found in the mountain bike and a recall occurs, gaining a great deal of media attention, quantity demanded at all price points may decrease, moving the entire demand curve to the left. We would label this new demand curve D2. This demand curve constitutes a decrease in demand.

These additional demand curves represent shifts in demand. Remember, a shift to the right represents an increase in demand, while a shift to the left represents a decrease in demand.

Interactive 2.4 Council for Economic Education Activity

Complete this activity to practice your new knowledge on demand.

Activity 2.1 - Create a demand schedule and graph for a product. Then describe a situation which would cause a

demand shift to the right or left and add a demand shift to your graph.

PRICE ELASTICITY OF DEMAND

Suppose you are going out with friends to pick up a pizza. When you stop at the Pete's Pizza, you see a sign on the door saying that since the minimum wage increased, Pete's Pizza must raise its price of pizza by $2.00. If you have regularly purchased pizza from Pete's Pizza , you may very well refuse to purchase the pizza if its price increased by $2.00. You might tell your friends that you'd rather go somewhere else to eat because you can get tacos at Jose's Fiesta for less money than pizza at at Pete's Pizza. In this case, the price of pizza is **elastic**.

On the way home from Jose's Fiesta, your gas tank is on empty, so you stop to get gasoline. When you pull into the gas station, you see that the price of gasoline has increased 40 cents per gallon since you went by earlier. Because your gas tank is on empty, you decide to fill up your tank anyway, paying the increased price. The price of gasoline in this case is inelastic. Gasoline in general, is a necessity that is price inelastic because we have very little choice as to whether we put gasoline in our car or not, unless we live in a city where there are other public transportation options available.

We know that consumers react when prices of a product rise by decreasing the quantity demanded of that product. The concept of **price elasticity of demand** relates to how much quantity demanded changes based upon a change in price. In order to calculate price elasticity of demand, we would divide the percentage change in quantity demanded by the percentage change in price. The result tells us whether demand for the product is perfectly inelastic, inelastic, unit elastic, or elastic. The following chart shows the values for price elasticity of demand:

Price Elasticity of Demand Value	Result
0	Perfectly inelastic. Demand does not change when the price changes.
0-1	Inelastic. The percentage change in demand from price A to price B is smaller than the percentage change in price.
1	Unit elastic. The percentage change in demand is exactly the same as the percentage change in price. This means that a 5% increase in price would result in a 5% decrease in quantity demanded.
> 1	Elastic. The percent of quantity demanded decreases more than the percent of increase in price. This means that a 5% increase in the price of a product might result in a 10% decrease in quantity demanded of that product.

Factors Affecting Price Elasticity of Demand

There are many factors that will affect the price elasticity of demand. Some of those factors include:

- Substitute Availability - If there are close substitutes available for the product, the demand will be more elastic because consumers can find an alternate product instead of paying the increased price.

- Necessity - If the product is considered by the consumer to be a necessity, the demand will be inelastic. On the hand, an item that is not a necessity will likely have more elastic demand.

- Income - The higher a consumer's income, the less elastic the price of the goods they purchase becomes. Those with higher incomes are less likely to purchase based upon price, so if the price increases, they are less likely to let that price increase affect their purchasing decision. People with lower incomes are more likely to let price increases affect their purchasing decisions.

- Level of price - Higher priced goods are generally more elastic than inexpensive goods. For instance, a video game console might be more price elastic than a candy bar.

- Habit-forming goods, such as cigarettes, tend to be price inelastic, as consumers of those goods will purchase them regardless of price increase.

Activity 2.2:

Name three products that are price elastic and three products that are price inelastic. Explain for each product why it is price elastic or inelastic.

Section 2

Supply

QUESTION TO GUIDE INQUIRY

1. **Supply- What factors influence the production decisions of producers?**

As explored in the previous chapters, individuals make decisions that will make themselves better off. The same is true of producers. The main economic question producers ask themselves is very similar: Given limited resources, how do they, as producers, make the best economic decisions they possibly can?

By the end of this chapter you will be able to answer this question:

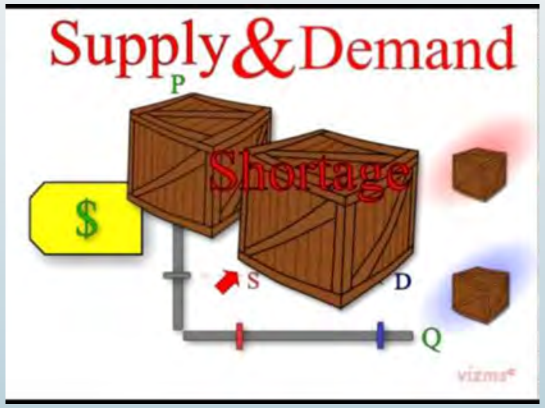
- What factors influence the production decisions of producers?

In order to understand **the Law of Supply** first a basic definition of supply is needed. **Supply** is the quantity of a good or service that producers are willing and able to offer for sale at each possible price during a given time period.

Looking at supply is not complex, it is logical.

Tip from an economist: Professor of economics Daniel Hamermesh encourages economics students, "put [yourself] into the particular problem being discussed and ask, "How would I behave if I were confronted with those choices?" Microeconomics is very logical, and most of us think very logically in our daily lives. When confronted with economics questions, though, we too, often forget our logic and get scared because somehow, the questions seem different. They're not."(Hamermesh, Economics is Everywhere)

Interactive 2.5 Supply and Demand

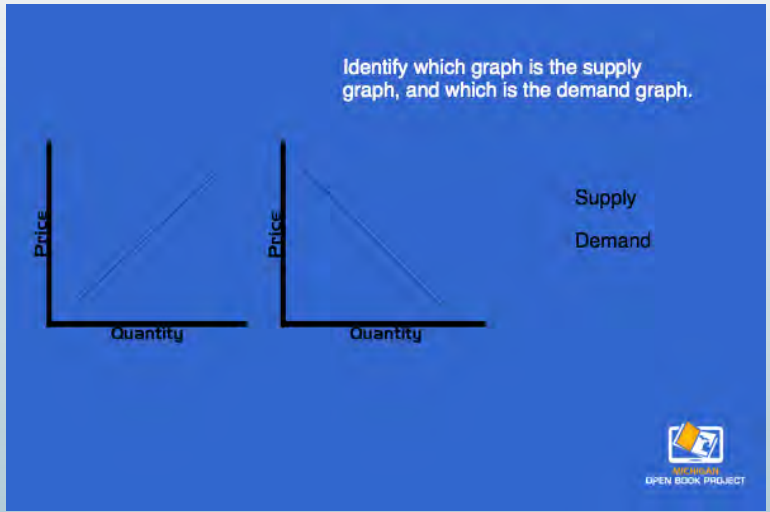


As a simple introduction to the law of supply watch this video

Logically, business owners and producers make decisions that make themselves better off. Decisions are usually made to follow the objective of making a profit [the difference between cost to produce a good and the price received for selling the good.]

On the graphs below, label which graph is the Supply Curve and Demand Curve, then decide how they are related.

Interactive 2.6 Supply Demand Practice



An illustration of the law of supply can be simplified by examining my need for a babysitter. If I need a babysitter this weekend for my three small children, how many of my students would be interested in working for me, or supplying babysitting services? The short answer is, it depends how much I am willing to pay. Based on the observation of the law of supply, the number of students willing to work depends on how much the job pays. As shown below, I may have two students interested in supplying babysitting for $1 per hour and 23 students willing to at $20 per hour.

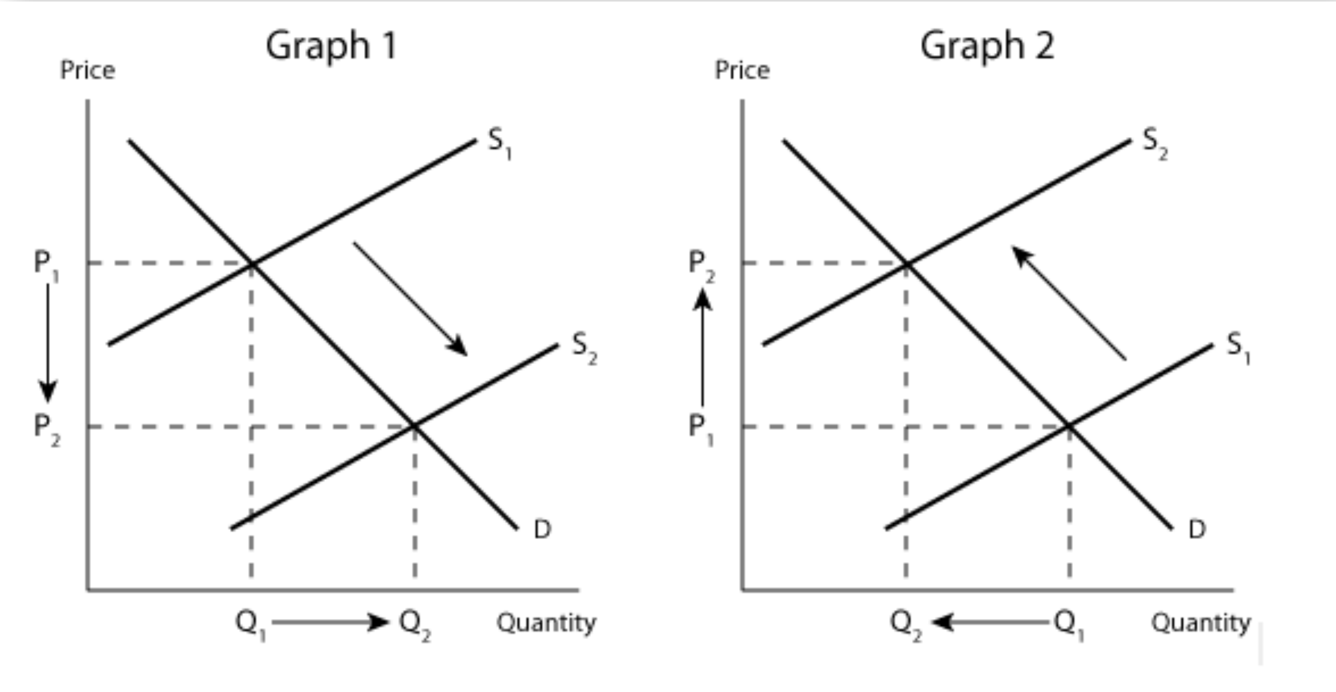
Price	Quantity Supplied (How many students in a class of 25 might be interested)
$1 an hour	2
$5 an hour	10
$10 an hour	17
$20 an hour	23

The higher the price of a good or service, the more producers are willing to make it available.

Quantity supplied is represented by each individual point on this supply graph. Supply, however, constitutes the entire supply curve, or all of the points taken together. A supply shift will move the entire supply curve to the right or to the left. For example, if a newly invented machine cuts the time for producing a watch in half, the supply would increase, which would shift supply to the right. On the other hand, if the cost of leather increases, then the supply for watches would shift to the left. These are known as supply determinants.

Reminder: in the last section we learned, "When an increase in demand occurs, quantity demanded would increase at every price level, so the entire demand curve would shift to the right…"

The same is true for supply--kind of. As seen below, a shift of the supply curve to the right indicates an increase in supply (graph 3), while a shift to the left indicates a decrease in supply across all price points.



Graphs found at: http://www.econport.org/content/handbook/Equilibrium/shifts-graph/mainColumnParagraphs/0/content_files/file0/market_equilibrium_g34.gif

Interpreting the graphs above:

In Graph 1 there is an overall increase in the level of supply. This is indicated with a rightward shift. The effect of an increase in supply is price will decrease and quantity supplied will increase.

Graph 2 indicates a decrease in supply. Read the graph. What happens to price and quantity when overall supply decrease? Price __________ and Quantity ___________

So what causes these graphs, and therefore prices to move? There are several specific events or actions that cause the overall level of supply to change. For example, if I had a strawberry farm, what other factors, aside from me deciding to change my price, would affect the supply of my strawberries?

A variety of things would change my supply. Strawberry supplies would likely increase if:

- I bought a new tractor that hoed and planted my fields in twice the time
- The cost of strawberry seeds decreased, or
- The government provides a tax reduction to fruit farmers who plant a minimum of 500 plants

Other actions might cause my strawberry supply to decrease, such as:

- If I expected strawberry prices would be lower next summer,
- If a late frost ruins a % of my plants, or
- If my next door neighbor who typically plants raspberries diversifies and adds strawberries to her fields for this season.

Economists categorize the things like the examples above that affect supply as **determinants**.

Determinants of Supply
Change in technology used in production
Change in the cost of factors of production
Change in the number of producers
Change in Government policy
A change in producers price expectations
Unforeseen circumstances: weather, strike, other

Now, let's put your new knowledge to a test! It is time to practice your understanding of supply shifting. Watch this video, and complete the notes outline below by filling in the the appropriate response below.

Interactive 2.7 Video Notes

Once you have finished watching the video above, fill out this online handout.

Interactive 2.8 Federal Reserve - Economic Low Down - Supply

Watch video from Federal Reserve Bank of St. Louis (3:57) : Episode 1 – Supply – The Economic Lowdown Video Series

Section 3

Price

QUESTIONS TO GUIDE INQUIRY

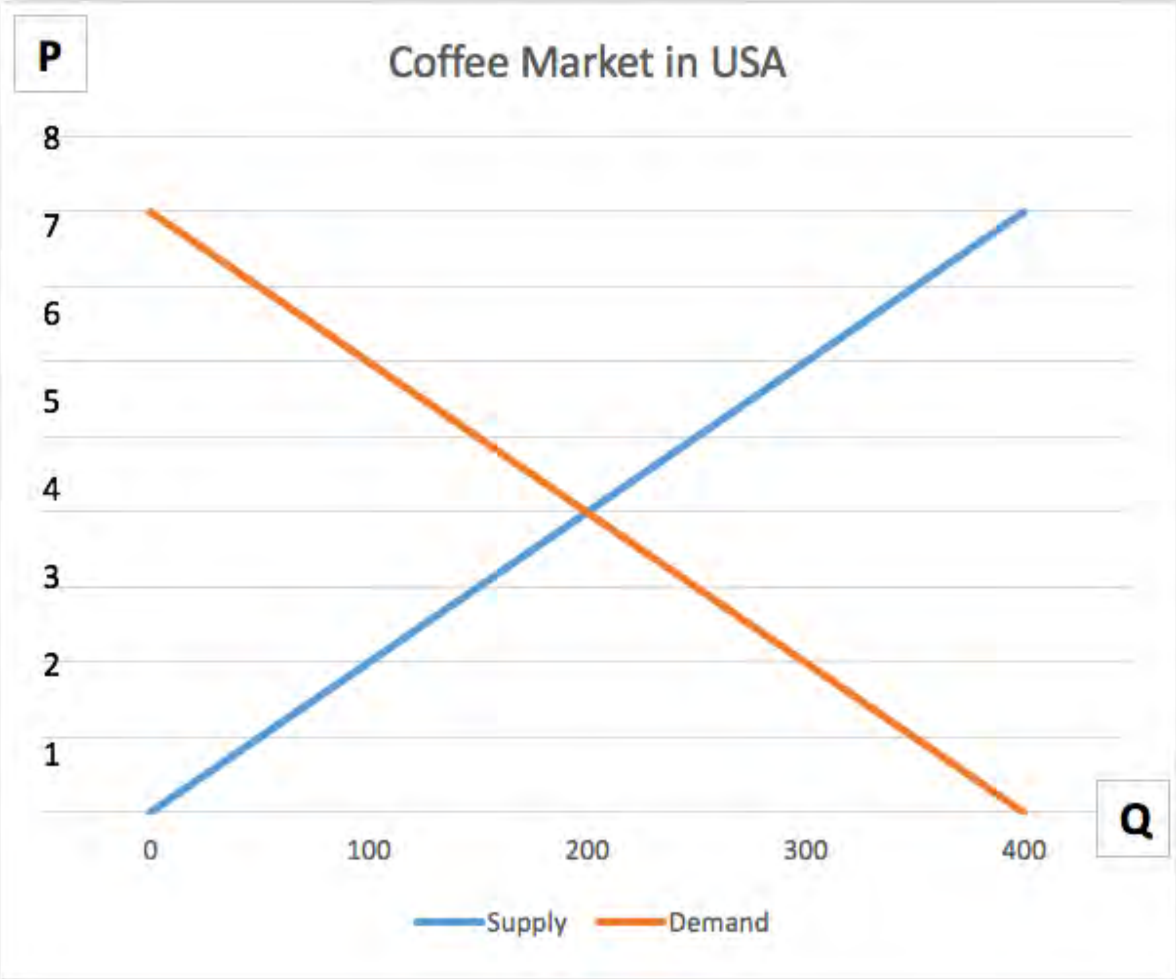
1. **Price- Collectively, how do consumers and producers work to determine price?**

Have you ever walked into a grocery store and wondered what causes the price of bananas to be one price and grapes to be another? This month the average price for bananas is $.54 per pound, while grapes are averaging $1.94 per pound. If we took the same averages next month they would likely be different. Why? The answer is found in the way that prices are set in a market economy. In a market economy, prices are not set by a group of government economists who analyze markets and and set arbitrary prices. Instead, prices are set by people like you and me, and are changed in response to everyday behavior. By the end of this chapter you will be able to answer this question about price:

• Collectively, how do consumers and producers work to determine price?

Equilibrium is the point of balance at which the quantity demanded is equal to the quantity supplied. To see equilibrium graphically, it is the location where supply and demand meet. This location is also referred to as the **market clearing price**. The market clearing price is the exact place where demand of consumers is perfectly proportioned to the supply of producers. There are no products left over, nor is there a surplus. Likewise, there is no shortage; everyone who desired and was able to pay for a product was able to buy one.

Equilibrium price will influence the choices of both buyers and sellers. When equilibrium is reached, the quantity demanded is equal to the quantity supplied. For example in the graph of the coffee market below, at the equilibrium price of $4 consumers will purchase 200 million pounds of coffee, the same quantity that producers are willing to supply.

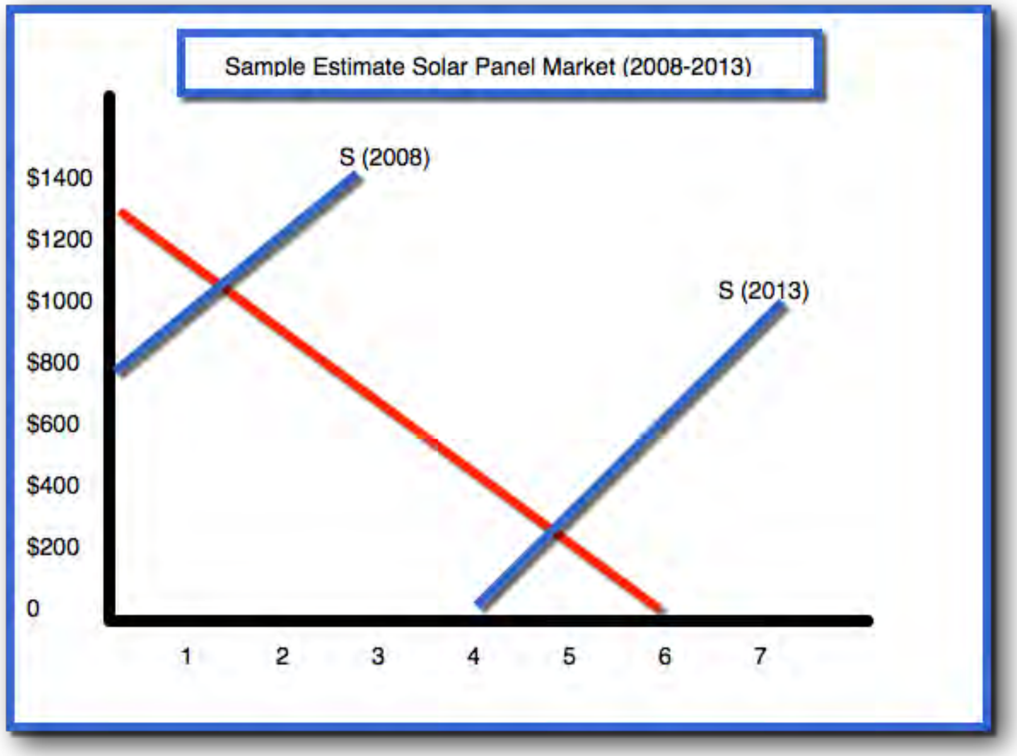


In accordance with the law of demand and the law of supply, when price changes, so does behavior. Consider what would happen if the price of coffee were to lowered to $2. More consumers would be willing and able to buy coffee, but the incentive for producers to produce would lessen, resulting in a shortage of coffee, or disequilibrium. Notice that 300 million pounds of coffee are demanded while only 100 million are supplied.

Changes in equilibrium occur when demand or supply are shifted in either direction because of a determinant shifting. With the shift comes a new equilibrium price and equilibrium quantity.

Interactive 2.9 NPR - Solar Panels

Activity: Listen to the following NPR (National Public Radio) story excerpt. Please select two determinants as shown in the graphic below that you see causing the price of solar panels to drop.



Price Controls

As previously discussed, in the American market economy, prices are set through negotiations between buyers and sellers. But what is the backup plan? What happens if there is not enough incentive for producers to continue to make a needed good? Or what happens if supply of a necessary good becomes so scarce that prices skyrocket to a level where only a few individuals can afford the needed good? In the U.S. economy, our government attempts to create fairness when it does not exist naturally. The government may impose a **price ceiling**--a maximum price that can be legally charged by a seller for a good or service.

Additionally, a **price floor**--the minimum price that must be paid for a good or service can also be imposed by the government. The minimum wage is probably the most well-known example of a price floor. While the government sets this minimum price that an employer must pay a worker for an hour of labor, individual states can set their own minimum wage amount; however, it must be higher than the government's minimum, not lower.

Some economists support the point of view that government regulatory policies slow economic progress. One piece of evidence that supports this claim is shown when the government steps in to set price controls in an effort to protect consumers or producers. When does the government step in? Or when should they? Let's get a basic understanding of how price controls work before answering those questions.

Governments sometimes set prices artificially above the market price (equilibrium). For example they may require a minimum price be paid for milk. This price floor is a policy that is set to protect milk producers and insure enough profit is made to have the incentive to continue producing. And in our country, we definitely need milk farmers. Could you imagine a country with no cheese, chocolate milk, or ice cream?

Because a price floor is set to protect producers, it is logical that a price ceiling is meant to protect consumers. When practicing price controls, the government will never step in and set an exact price, instead they set a limit. This shows the government's respect for the free market system of allowing prices to be set naturally through negotiation of buyers and sellers.

Let's take a step back in time and examine a time in our nation's history where price ceilings were used. During World War II much of the economy was focused on preparing war materials such as uniforms, weapons, food, and other essential supplies. The result was that consumer goods became scarce because there weren't enough raw materials for ample production of both war goods and consumer goods.   In order to help make sure that consumers were able to get a fair share of goods, the government, through the Office of Price Administration, set up a system of rationing and price controls.

Interactive 2.10 Prices Unlimited

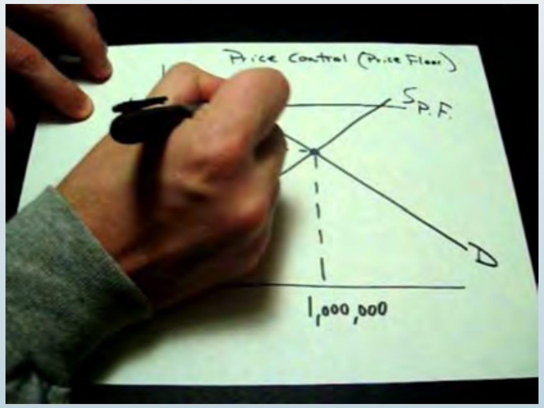
Watch this propaganda video, "Prices Unlimited" created by Universal Pictures Studio in 1944 for the Office of Price Administration that shows the reason for a price ceiling.

Response: In writing, please summarize and defend the policy of rationing and price controls during WWII.

Economic argument against price controls.

It would be nice if the government protections of price floors and price ceilings had no negative effects to either producers or consumers. Unfortunately, there are major consequences to these price control policies, especially if they are long lasting.

Interactive 2.11 Price Floors



Take a look at the graphs in the video. They show the location of a price floor and price ceiling

In summary-- price controls will lead to shortages or surpluses. The problem of **shortage** exists when the quantity of a good or service demanded in a market is more than the quantity supplied. This can also be referred to as excess demand. When the actual price is below their equilibrium price, a shortage exists because the low price encourages buyers and discourages sellers. On the other hand, a **surplus** exists when the quantity supplied exceeds the quantity demanded and the actual price of a good is higher than the equilibrium price. As you can see, both shortages and surpluses as a result of price controls are inefficient and ineffective. Because of that, the government rarely utilizes this tool.

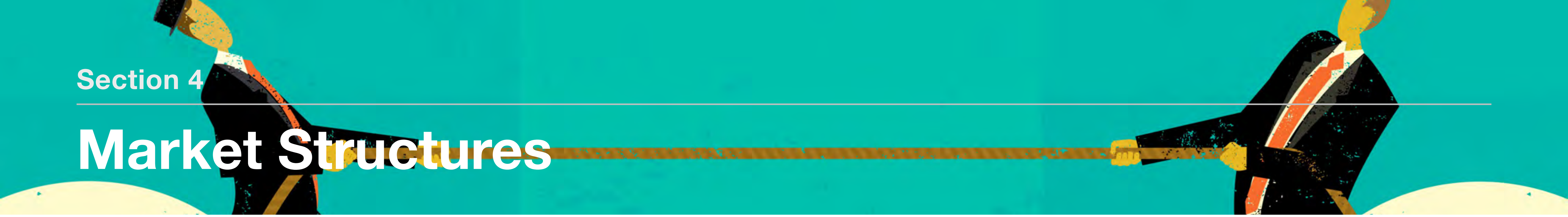
Conclusion:

Now that we have studied Demand, Supply, and Prices it is your turn to make a decision.

Using your newly acquired economic knowledge decide:

How fair and effective are markets at reaching equilibrium?

In the next section you will be asked to take the idea one step further in applying the ideas of supply and demand to business and labor.



Section 4

Market Structures

QUESTION TO GUIDE INQUIRY:

1. **Market Structures--How does competition impact the choices you make as a consumer?**

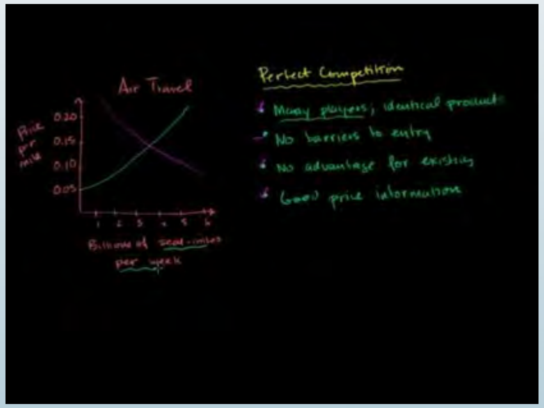
The simplest market structure is that of pure competition. Also known as **perfect competition**, a perfectly competitive market occurs when a large number of firms are all producing essentially the same product. Further, the assumption can also be made that the market is in equilibrium and all firms are selling the same product for the same price. Unfortunately, an additional characteristic of perfect competition is that each firm ends up producing so little of the particular product in contrast to the total product supply that no one firm can influence prices. Therefore, the only decision that a firm's producers can make is how much to produce.

As there are very few industries that meet all four of the strict conditions to reach the perfect competition ideal, there are some that come close. All four of these conditions must be met for a market to be considered perfectly competitive:

1. Many sellers as well as buyers participate in the market.
2. Sellers offer identical products.
3. Sellers as well as buyers are well informed about products.
4. Sellers are able to enter and exit the market freely.

The following video illustrates an excellent application of the four conditions of perfect competition. Afterwards, try to complete the extended thinking task.

Interactive 2.12 Khan Academy - Perfect Competition



Extend your thinking: In the video, the airline industry is used as an example of perfect competition. Using your knowledge about the four conditions that must be met, develop your own example of perfect competition in today's marketplace. Be sure to use descriptions and examples to illustrate each of the characteristics.

Monopolies

While in a perfectly competitive market there are many buyers and sellers, there are situations in which monopolies do occur. A **monopoly** is formed when barriers prevent firms from entering a market that has a single supplier. Monopoly markets have only one seller but can have any number of buyers. It is because of the exclusive control of a commodity or service in a particular market that makes possible the manipulation of price by the single supplier. **Natural monopolies** are markets that run most efficiently when one large firm provides all of the output. An example of such a natural monopoly might be public water. When huge wastes of time, energy, and money would be expended to avoid a monopoly, the government often steps in to allow a single provider to provide necessary services thus avoiding waste. Often in return for allowing a natural monopoly to exist, the natural monopoly agrees to the government's price controls.

In some cases, the government itself creates its own monopoly, a **government monopoly**. This happens when government actions end up creating barriers to entry in markets and a monopoly occurs. Why would the government create a monopoly you might ask? A primary reason is for the benefit of many. For example, one action that the government can give monopoly power to a company is through the issuance of a patent. A patent gives a company the exclusive right to sell a new good or service for a specified period of time. This tends to promote research and development by the company of its product which in turn ends up benefitting many.

Because we live in a market economy, just like perfect competition, **monopolistic competition** also occurs. Monopolistic competition is different from a monopoly. As you already know, a monopoly exists when a person or entity is the exclusive supplier of a good or service in a market. In this type of competition, many companies compete in an open market to sell products that are similar but not identical. The minor differences in products is what makes monopolistic competition a somewhat modified version of perfect competition. This occurs because each firm holds a monopoly over its own particular product design. And while the goods in a particular market are similar enough that they could be substituted for one another, they are not identical. For example, a restaurant in a large city would be an example of monopolistic competition because although there are multiple restaurants that serve similar types of dishes, no dish is identical to another restaurant's similar dish. Typically, markets that have monopolistic competition are inefficient for two reasons. First, as its optimum output, the firm charges a price that exceeds marginal costs. The second source of inefficiency is the fact that these firms operate with excess capacity.

Monopolistic Competition compared to Perfect Competition

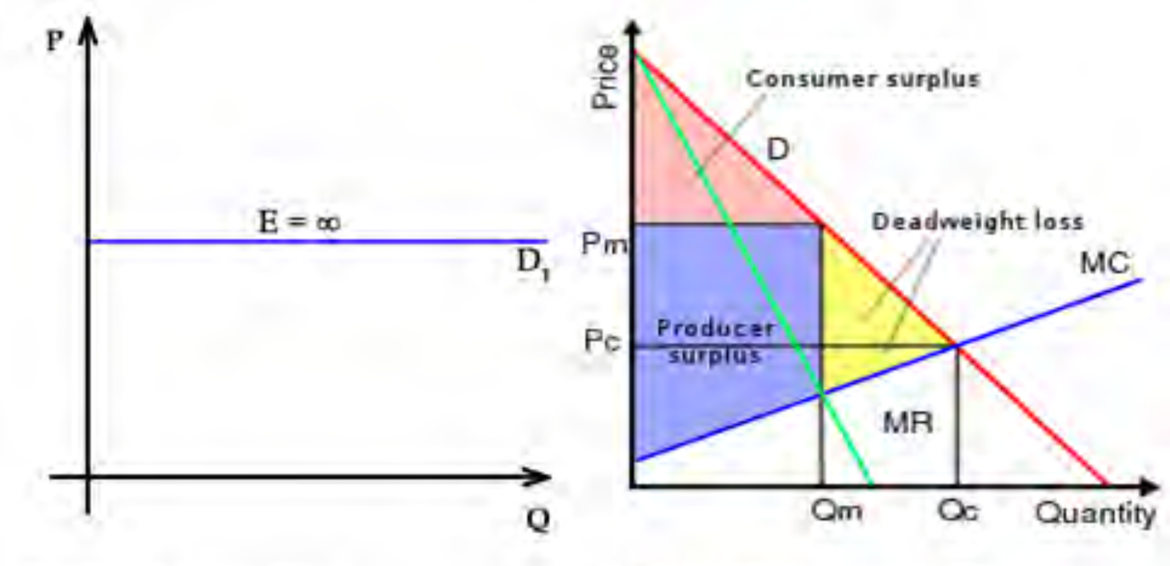
When comparing the two types of competition there are three main points to think about:

•Perfectly competitive markets have no barriers of entry or exit. Monopolistically competitive markets have a few barriers of entry and exit.

•The two markets are similar in terms of elasticity of demand, a firm's ability to make profits in the long-run, and how to determine a firm's profit maximizing quantity condition.

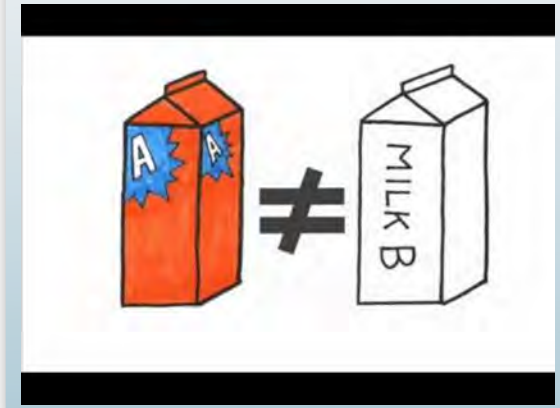
•In a perfectly competitive market, all goods are substitutes.In a monopolistically competitive market, there is a high degree of product differentiation.

If we were to illustrate similarities and differences using graphs, they would look like this:



Perfect Competition **Monopolistic Competition**

Interactive 2.13 Monopolistic Competition



A short video that provides an excellent illustration of monopolistic competition can be found in the widget to the left.

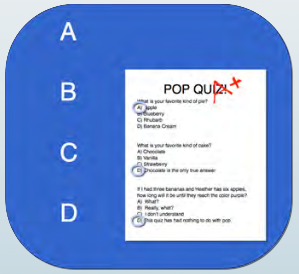
Interactive 2.14 Extend Your Thinking

As you reflect on the characteristics of both perfect and monopolistic competition answer the question in this widget.

Oligopolies

In addition to monopolies, oligopolies are another form of a market structure. An oligopoly occurs when a market is dominated by a few large, profitable firms who possess significant **market power** (usually 70-80% of product output), thus preventing smaller firms from entering the market. Many oligopolies make differentiated products such as cigarettes, automobiles, computers, ready-to-eat breakfast cereal, and soft drinks. Although product differentiation is not required for an oligopoly to form, if a firm can successfully differentiate its products, it will gain market power and resist competition more easily. Oligopolies are defined by one firm's interdependence on other firms within the industry. When one firm changes its price or level of output, other firms are directly affected. When firms collude, they use restrictive trade practices to voluntarily lower output and raise prices in much the same way as a monopoly, splitting the higher profits that result.

Interactive 2.15 Extend Your Thinking



Using your knowledge about oligopolies and monopolies, answer the questions in this quiz widget.

Regulation and Deregulation

As you recall, market power is a firm's ability to control prices and total market output. Obviously market structures like monopolies and oligopolies are bad for the consumer and ultimately, for the economy in general. The federal government does have a number of policies in place, along with executive agencies to regulate business practices, break up monopolies, block corporate mergers, and preserve incentives to protect consumers' best interests in the marketplace. Perhaps one of the most effective pieces of legislation to authorize the government's role in the regulation of business was the passing of the Sherman Antitrust Act, passed by Congress in 1890. Watch a brief history of the Act and learn about its significance in the video.

Interactive 2.16 The Sherman Anti-Trust Act Explained

Founded on September 26, 1914, the mission of the Federal Trade Commission is to prevent business practices that are anticompetitive or deceptive or unfair to consumers; to enhance informed consumer choice and public understanding of the competitive process; and to accomplish this without unduly burdening legitimate business activity. Here's a brief history of the FTC and how this agency utilizes its authority through legislation such as the Sherman Antitrust Act to break up monopolies and prevent other harmful business practices from occurring.

Interactive 2.17 FTC History

Deregulation

While antitrust laws may have been intended to increase competition, much other regulation had the opposite effect. As Americans grew more concerned about inflation in the 1970s, regulation that reduced price competition came under renewed scrutiny. In a number of cases, government decided to ease controls in cases where regulation shielded companies from market pressures.

Transportation was the first target of deregulation. Under President Jimmy Carter (1977-1981), Congress enacted a series of laws that removed most of the regulatory shields around aviation, trucking, and railroads. Companies were allowed to compete by utilizing any air, road, or rail route they chose, while more freely setting the rates for their services. In the process of transportation deregulation, Congress eventually abolished two major economic regulators: the 109-year-old Interstate

Commerce Commission and the 45-year-old Civil Aeronautics Board.

Although the exact impact of deregulation is difficult to assess, it clearly created enormous upheaval in affected industries.

Chapter 3

Choices in Business

QUESTIONS TO GUIDE INQUIRY:

1. What are the advantages to each way businesses organize themselves?

2. How do labor unions support workers?

3. How does the supply and demand for labor affect wages for specific jobs?

4. Does labor work in opposition to business organizations?

Image source: Shutterstock/Rawpixel

Section 1

Business Organizations

QUESTION TO GUIDE INQUIRY

1. **What are the advantages to each way businesses organize themselves?**

Berkeley is opening a new retail business selling local products to tourists in the summer. She is an entrepreneur, someone who identifies a need and takes a risk by starting a business to fill that need. Entrepreneurs often have similar traits. They are self-starters, independent minded, hard working, and willing to take risks. What form of business structure should Berkeley choose for her new business? She has a number of business structures to choose from.

New businesses are often organized as **sole proprietorships**. A sole proprietorship is a business that is organized by one person, the business is not a separate entity from the owner, and the owner is responsible for all debts and liability of the business, as well as being entitled to all profits generated by the business.

Advantages of Sole Proprietorship	Disadvantages of Sole Proprietorship
• Easiest and least expensive form of business to establish • Owner maintains complete control of the business, without having to consult with others when making business decisions • Owner controls all income of business	• More difficult to raise money to establish or expand business • Personal liability by owner, which can result in owner losing personal assets in the event of bankruptcy or lawsuit • Entire responsibility and control of the business is on the shoulders of the owner

Another form of business organization is a **general partnership**. General partnerships involve two or more people working together in owning their business. This allows one or more owners to share in the responsibility of running the business, but it also involves sharing profits among those stakeholders.

Advantages of General Partnership	Disadvantages of General Partnership
• Partnerships are easy to establish, though more difficult than a sole proprietorship • Share responsibility and risk with one or more partners • Partners may have complementary skills to assist in management of the business • Partners can make all business decisions	• Share in profits with one or more partners • Each partner is responsible for all of the business's debts • Personal liability by all owners, which can result in owners losing personal assets in the event of bankruptcy or lawsuit

A **limited liability partnership** provides the benefit of limiting the partner's liability to their investment in the company, so the owners of the business would not risk losing their personal assets (home, car, personal bank accounts, etc.) if the company were to fail.

Advantages of Limited Liability Partnership	Disadvantages of Limited Liability Partnership
• All partners have limited personal liability • Subject to little government regulation • Can raise more capital than sole proprietorship due to greater assets being contributed • Each partner pays taxes on their share of the income; the business itself does not have to pay taxes	• Potential for conflict; can be difficult to solve • Partnership may not outlast the lives of those who started it • Multiple decisions regarding responsibilities must be made

A **corporation** is a business structure that provides protection from liability to individual owners, as the company is legally seen as its own entity.

Advantages of Corporation	Disadvantages of Corporation
• Shareholder liability is limited to the amount they have invested in the corporation • Easier to raise/borrow money for expansion or other business purposes • Ability to choose to sell stock to finance company growth	• More complicated and expensive to set up • "Double taxation": The business itself is taxed, and the dividends paid to shareholders are taxed as well • Any shareholders will own a portion of the business and have a voice in how it is operated

A **franchise** is another way to begin a business by purchasing the rights to start a business based upon a model designed by the franchisor, who in many cases provides training, supply chain support and support in setting up operations. In return, the franchisee pays a franchise fee, as well as royalty fees to the franchisor.

Advantages of a Franchise	Disadvantages of a Franchise
• Training and assistance in setting up business provided • Financing by the franchisor may be available • Company support and national advertising support for business	• Fees for purchasing franchise • Ongoing royalty fees paid to franchisor • Limitations as to personal choices made by business owner, as requirements of franchise

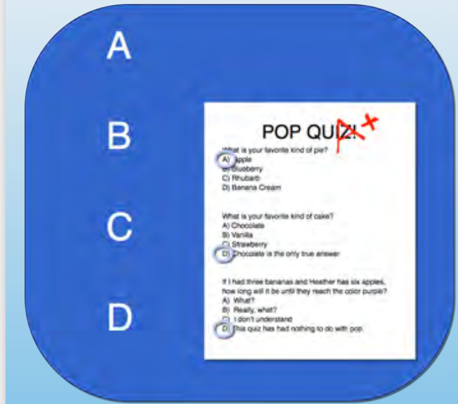
Employee-Owned Businesses can be organized in many ways, but cooperative ownership of the business by employees, of course, is key.

Advantages of Employee-Owned Businesses	Disadvantages of Employee-Owned Businesses
• Profits and earnings distributed among employees • Since employees directly benefit from success of business, often there is improved productivity • Positive morale by employees • Democratic organization	• Raising capital is more difficult • Differing ideas on management direction

A Non-Profit Organization is a business entity whose primary mission is not making a profit. Instead, Non-Profit Organizations are generally set up for to provide charitable, religious, or educational purposes.

Advantages of Non-Profit Organization	Disadvantages of Non-Profit Organization
• Set up to benefit a cause that the founder has a strong passion for • Ability to bring in others with an interest in supporting the same cause • No tax liability	• No profit potential for individual • Difficult to comply with requirements for non-profits • Must set up organization legally to avoid tax liability

Interactive 3.1 Types of Business Quiz



Test your knowledge of the different types of business by reading these scenario based questions and answering each.

Section 2

Labor

QUESTIONS TO GUIDE INQUIRY

1. **How do labor unions support workers?**

2. **How does the supply and demand for labor affect wages for specific jobs?**

3. **Does labor work in opposition to business organizations?**

In the previous section, a closer look at the marketplace was examined through the structure and organization of markets. Though each structure has its own advantages and disadvantages, one thing is the same--sole proprietorships, partnerships, franchises, and corporations all represent the employer side of the market. This chapter focuses on the side of the employee: labor and its impact on the market.

As the U.S. economy has changed, the **labor force**--all nonmilitary people who are employed or unemployed, has also had to adjust. How are changes to the labor force tracked, you may ask. Each month, the Bureau of Labor Statistics, a division of the U.S. Department of Labor surveys households to assemble information on the labor force.

The Bureau of Labor Statistics provides statistics to answer two important questions:

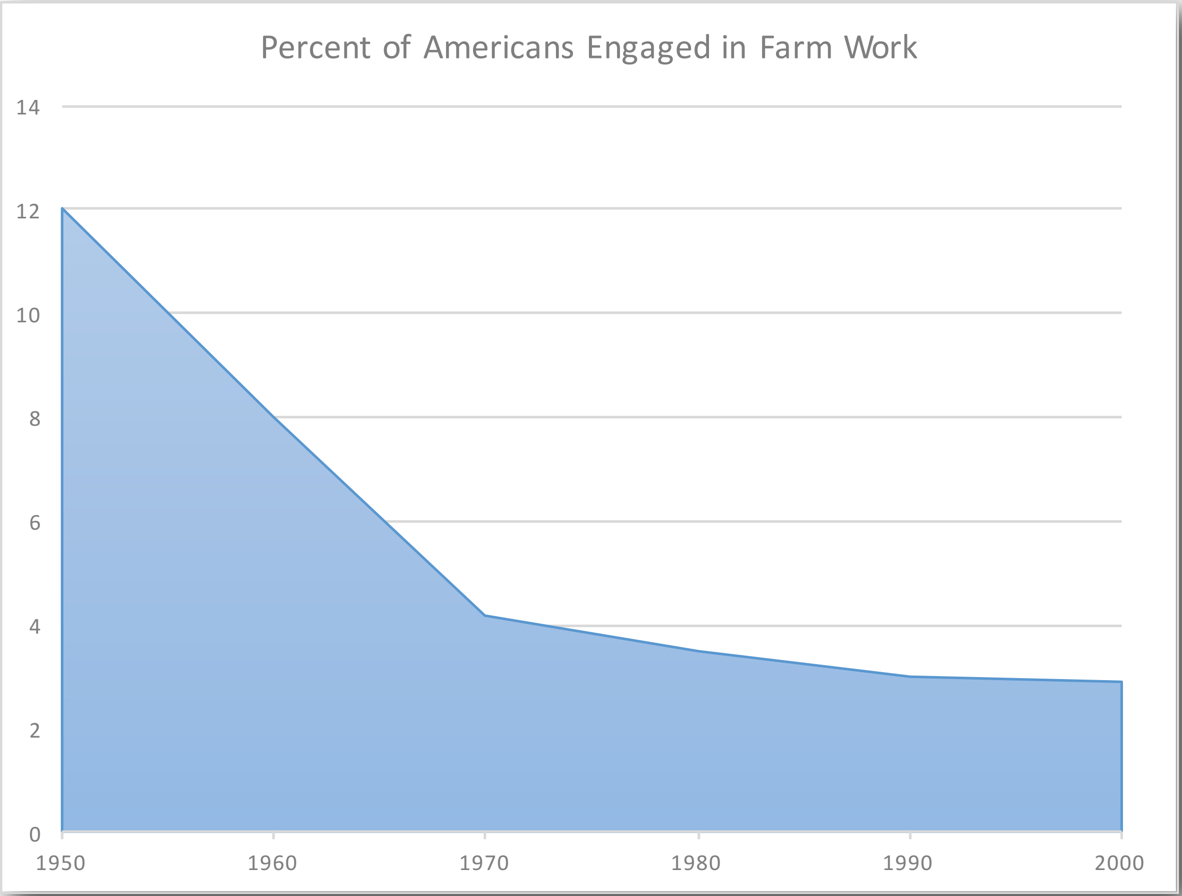
1. How many are in the labor force?
2. How many are employed and unemployed at the same time?

Perhaps the most widely known statistic that the BLS reports is the **unemployment rate**--the percentage of a nation's labor force that is unemployed, which is commonly reported on the news.

Occupational Trends

As you can probably surmise, the job market does not stay the same. Population growth or decline, new technologies, and the emergence of new industries are some of the factors that cause shifts in the job market. This is a reflection of the major shifts in what is produced in the economy.

For example, the economy in the U.S. has changed drastically throughout its 240 year history. As society has moved from an agrarian society to an industrial society and currently an information and service society, major shifts have occurred in what our economy produces.



For example, our production of services is increasing faster than our production of goods. And while the number of service jobs has increased, the U.S. has lost manufacturing jobs. **Outsourcing**--the practice of contracting with another company to do a specific job that would otherwise be done by a company's own workers as well as offshoring--the movement of some of a company's operations to another country have greatly caused huge shifts in demand for workers.

The Changing Labor Force

Jobs are not the only part of the labor force that have changed; workers have also changed. The demographic landscape of the American worker has undergone a significant transformation. In the current job market, more education and training is needed than ever before. And women and members of minority groups comprise a larger part of the workforce than they ever have. Additionally, the idea of working at the same job for an entire working lifetime is a thing of the past. Those entering the workforce today can expect to hold at least four or five different jobs throughout their working life.

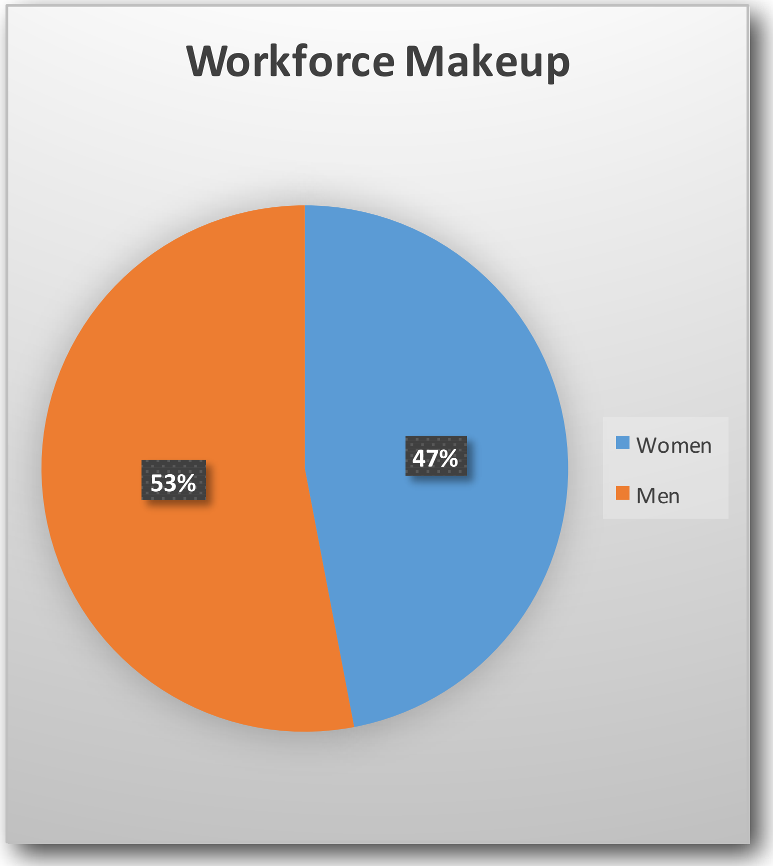


Chart created with data from the U.S. Bureau of Labor

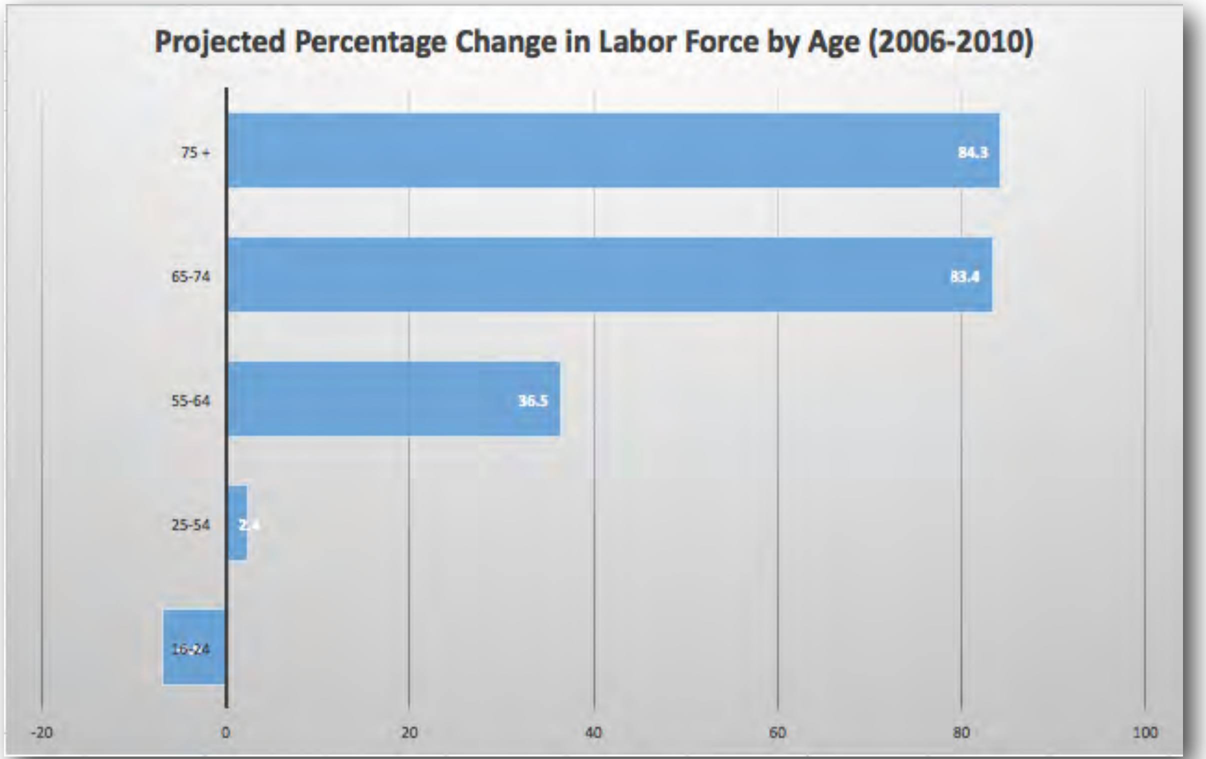


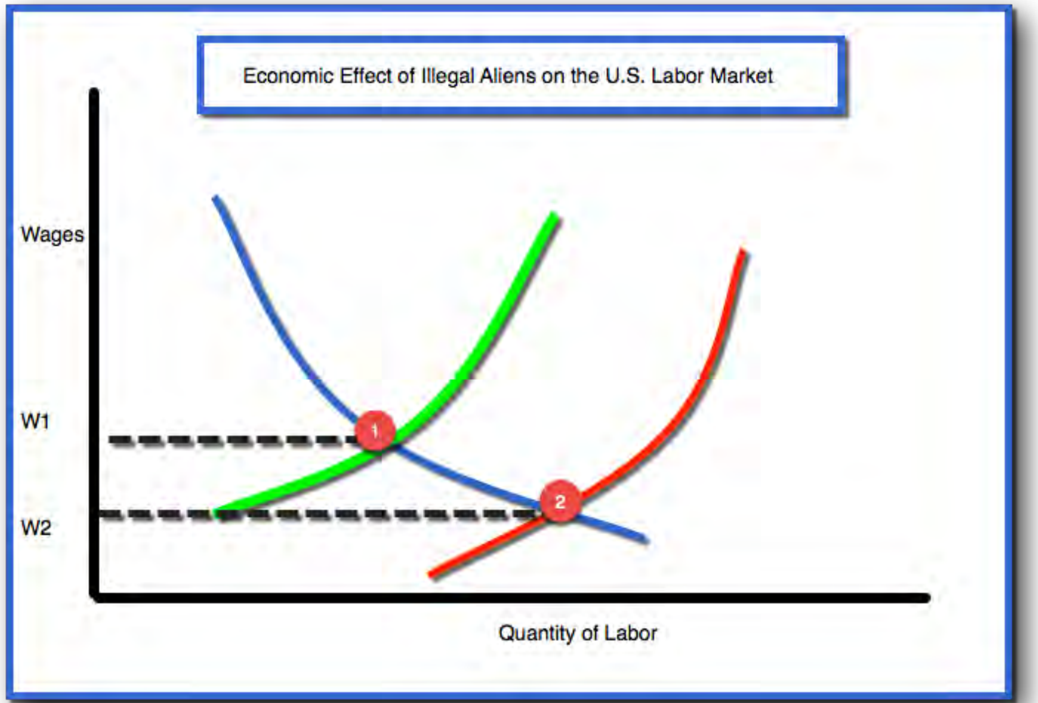
Chart created with data from the U.S. Bureau of Labor

The Impact of Foreign-Born Workers

Interactive 3.2 Center for Immigration Studies

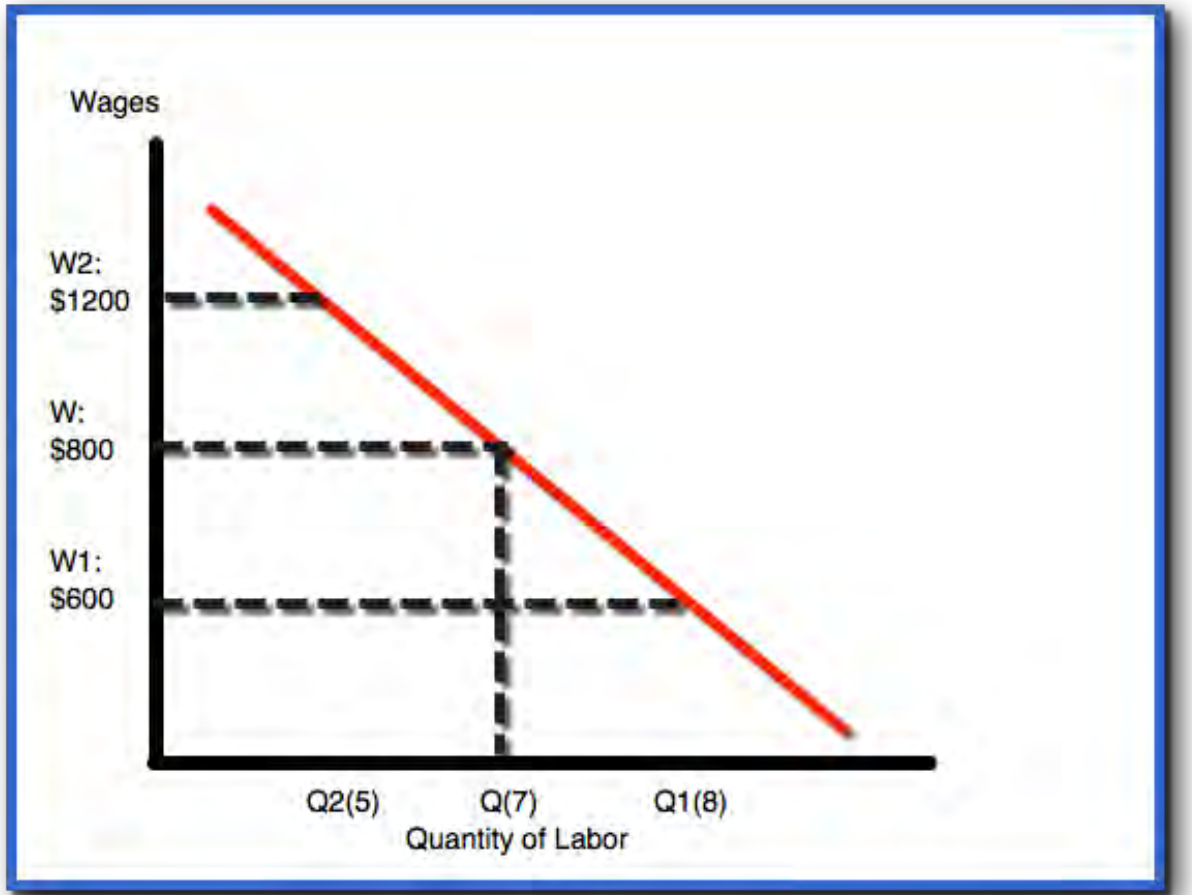
For a comprehensive article that provides information on both sides of this controversial issue, see the attached website.

An additional factor that impacts labor force statistics is that of foreign-born workers. Some of these immigrant workers come to the U.S. as permanent residents. Others come as guest workers who are allowed to live and work in the U.S. but only for a limited time. Companies that hire guest workers must prove that they cannot meet their labor needs from within the U.S. and that by utilizing guest workers wages of native-born workers will not be lowered. This has led to the hotly contested issue of immigrant labor.

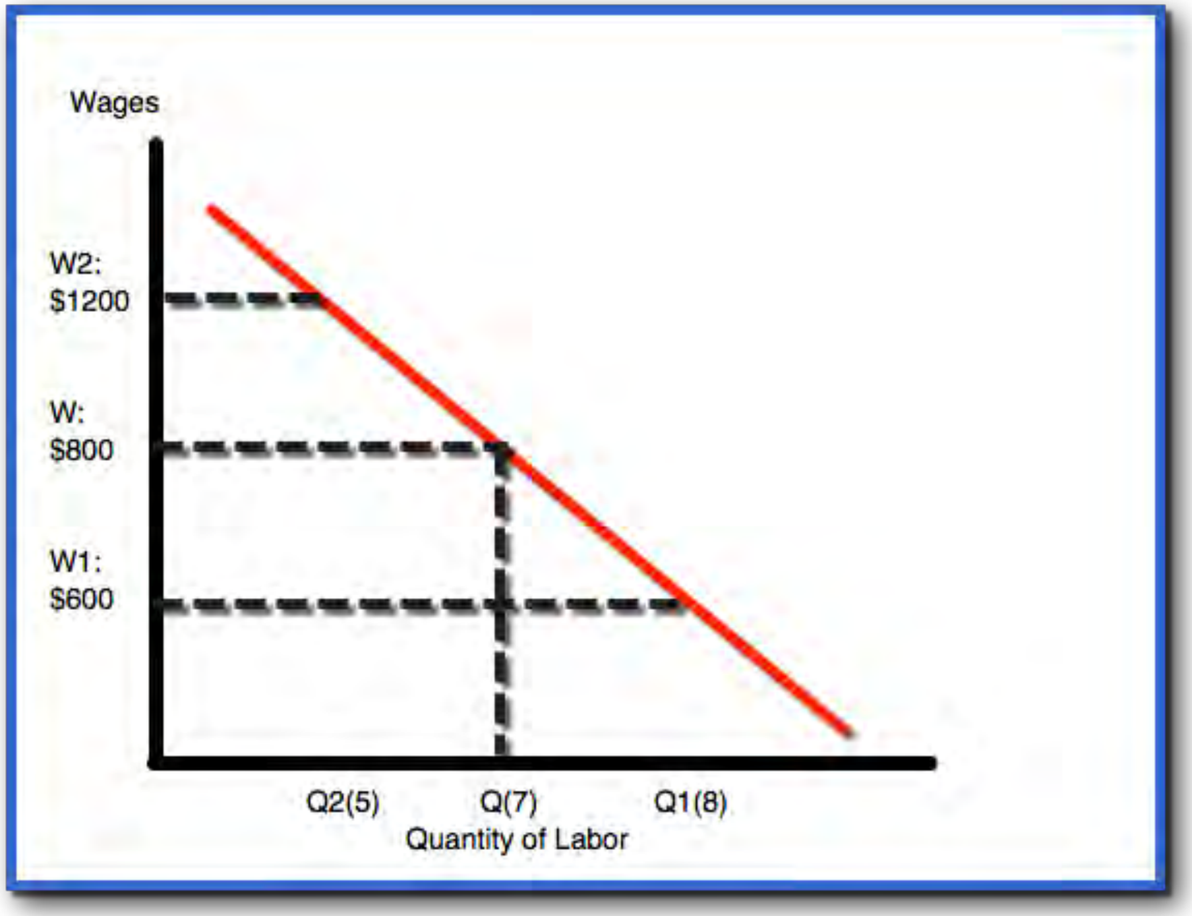


Supply and Demand for Labor

As with price, labor is contingent on supply and demand. Employment in a labor market depends on how closely the demand for workers (the number of jobs) meets the supply of workers seeking jobs. **Derived demand**--a type of demand that is set by the demand for another good or service, can be used to accurately describe labor because the other good or service is the demand for what a worker produces. In a competitive market workers are usually paid by the value of what they produce. **Productivity of labor**--the quantity of output produced by a unit of labor, is often used to determine wages.

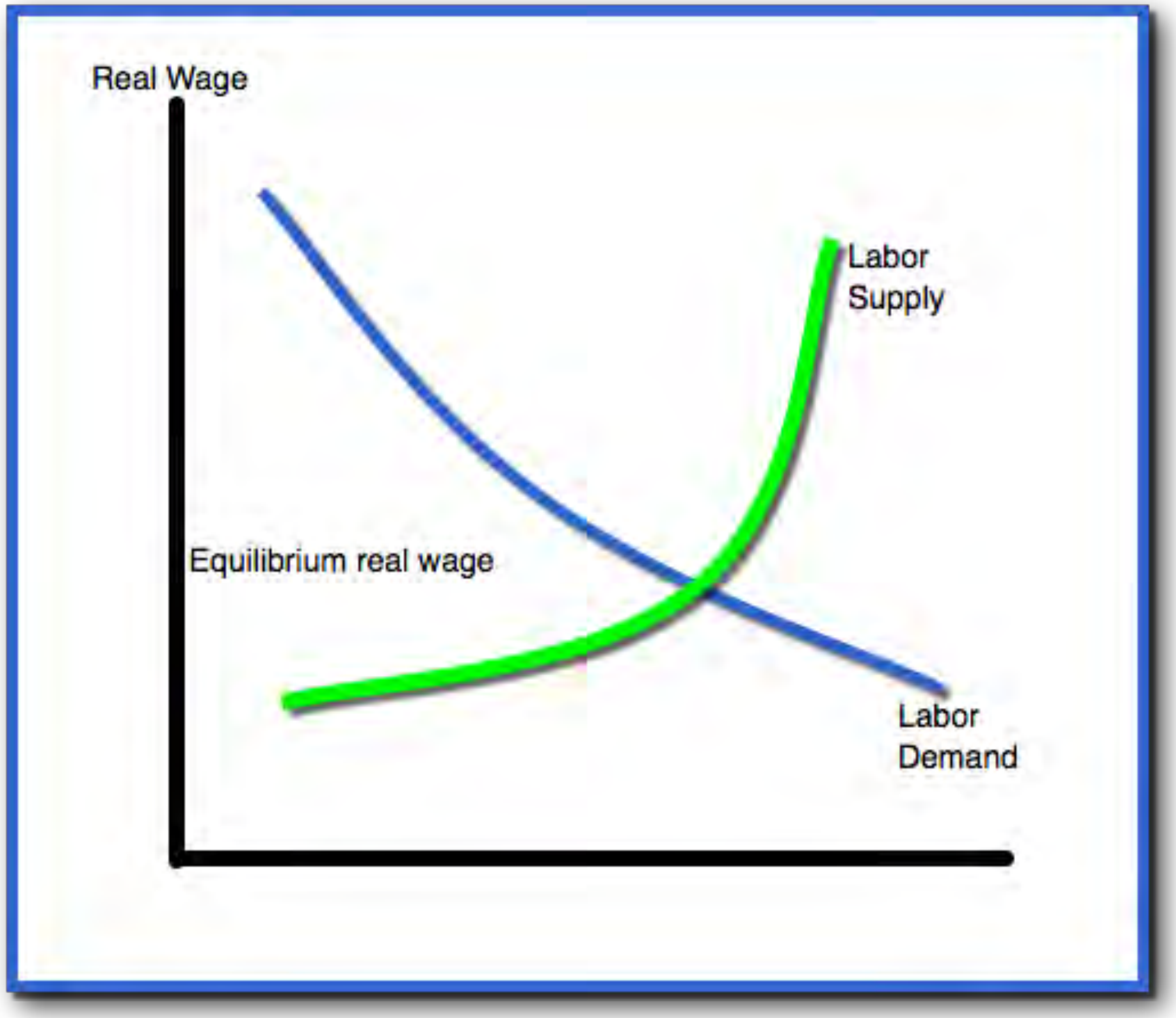


On the supply side, the supply of labor comes from people who are willing to work for a wage. Usually, the higher the wage for a certain job, the larger the number of people who are willing to perform the job. See the example of a supply labor curve below:



Similar to the equilibrium price with products or services, the **equilibrium wage** is the wage rate, or price of labor services that is set when the supply of workers meets the demand for workers in the labor market.

See graph below:



Wages and Skill Levels

In a market economy, wages vary according to workers' skills levels, education, and experience as well as supply and demand. Generally, jobs are categorized into four levels:

Level	Description	Examples
Unskilled Labor	Requires no specialized skills, education or training; workers normally earn an hourly wage	Janitors, dishwashers, housekeepers
Semi-Skilled Labor	Requires minimal specialized skills and education--usually the operation of specific types of equipment; workers usually earn an hourly wage.	Cooks, cashiers, factory workers, fast food workers
Skilled Labor	Requires specialized abilities and training to do tasks such as operating complicated equipment; workers often need little supervision but tend to earn an hourly wage.	Chefs, medical technicians, firefighters, EMTs
Professional Labor	Demands advanced skills and education; tend to be considered white-collar workers; receive a salary as opposed to an hourly wage	Lawyers, dentists, business executives, teachers

Other Factors Affecting Wages

One of the most widely known factors that can affect wages is the existence of minimum wage laws. These laws state a minimum price that an employer can pay a worker for an hour of performed labor. Because of these laws, employers sometimes have to pay more than the equilibrium wage for unskilled labor. Safety laws can also affect wages; wages decrease in some cases where workers are willing to work for lower wages in exchange for safer working environments. Additionally, companies sometimes try to cut wage costs by replacing human labor with machines. And perhaps the most significant factor affecting labor has to do with the activities of labor unions.

Labor unions are organizations of workers that try to improve working conditions, wages, and benefits for its members. The primary work of a union involves negotiating wages, work rules, complaint procedures, promotions, benefits, workplace safety and policies with company management. Unions can restrict the supply of labor in two ways: slowing the growth of the labor force and promoting policies that make it difficult for workers to enter a particular craft. Some of the tools that labor unions employ include collective bargaining--the process in which union and company management meet to negotiate a new labor contract, and strikes--organized work stoppages intended to force an employer to address union demands.

Organized Labor

The labor union movement in the U.S. took shape over the course of more than 100 years largely in response to changes in working conditions brought about by the Industrial Revolution. After a period of illegal strikes and violent activity on both the sides of employers and workers, the labor movement was legalized during the Great Depression. The labor laws that were established set up a structure through which workers legally have the right to form unions and engage in collective bargaining and striking. Collective bargaining is a process of negotiations in which the employer and union meet to work out a mutually agreeable set of terms and conditions for the workforce. Striking is a process by which workers refuse to go to work until their demands for better working conditions are met. In many states it is illegal for public sector workers to go on strike because it disrupts the functioning of society.

Interactive 3.3 Timeline of the Labor Movement

As you can see from the timeline, labor unions grew in number as well as in strength. As they grew, some some feel that unions began to abuse their power. Combined with the emergence of other institutions that were able to provide many of the services that had been encompassed under union activity, the need for labor unions lessened over time. Others feel the Union movement is just as necessary today as it has ever been. Watch this informative video on the decline of the labor movement in the U.S. and decide for yourself if the need for organized labor is still necessary today and if so, in what capacity.

Interactive 3.4 Do Unions Still Matter?

Chapter 4

The Business Cycle and Economic Growth

QUESTIONS TO GUIDE INQUIRY

1. How do we measure the health of the economy?

2. What do economists do with the information from economic indicators?

3. Under what conditions are economic expansions or contractions problematic?

4. Why is one indicator (GDP; GNP; CPI etc.) better to measure the health of the economy?

Image source: Shutterstock/Rawpixel

Section 1

Gross Domestic Product and the Growth of the Economy

QUESTION FOR GUIDING INQUIRY:

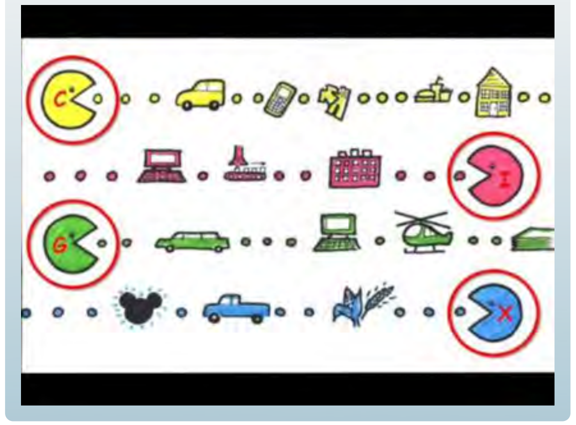
1. **How do we measure the health of the economy?**

Measuring the Economy

Over time, many tools have been developed by economists to monitor a nation's economic performance. And while many of these tools can seem too large in scale and too overwhelming to apply to your daily life, looking at some of the same indicators that economists do can actually help you as an individual make decisions on how to make the most of your income.

Gross Domestic Product

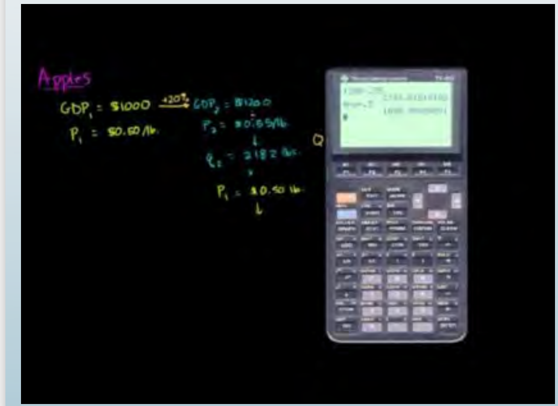
Interactive 4.1 GDP



The most important measure used to determine the health of the economy is the **Gross Domestic Product** (GDP). **GDP** is the dollar value of all final goods and services produced within a country's borders in a given year. Memorizing the fact that GDP is the most important determinant of a healthy economy is one thing--understanding each of the phrases in the definition is quite another. Let's examine each part in a little more detail by watching this informative video. While viewing, be sure to record, in your own words, the four important parts of the definition of GDP: dollar or market value, final goods and services, borders, and given year.

Nominal vs. Real GDP

Interactive 4.2 Khan Academy, GDP



A nation’s GDP measures the value of its output of goods and services in a particular period of time. Gross Domestic Product is expressed in dollar terms, which means that if the price of goods and services rise, a country’s nominal GDP figure will increase. The problem with this is that an increase in the nominal (numerical) value of a country’s output can increase when price levels rise, even if the actual level of output remains the same.

For this reason, it is important to adjust a nation’s nominal GDP for any changes in the price level that occur between two periods of time. Once nominal GDP is adjusted for inflation or deflation, we arrive at real GDP, which is a much more accurate measurement of the actual level of output in a nation, adjusting for any changes in prices.

Although real GDP--GDP expressed in constant or unchanging prices, is a valuable tool, it does have its limitations. As you watch this video that discusses the limitations of GDP as an economic health indicator, list and think each factor. Do you agree with this list? Are there other factors that are not mentioned in this video that should be?

Interactive 4.3 Real vs Nominal GDP

Learn more about Real vs Nominal GDP at this website from EconEdLink

Now that you know quite a bit more about how GDP is determined and its limitations, you may be asking, “Why is this information significant? To answer that question, consider what the factors are that influence GDP and you’ll soon see why the analysis of GDP is so important.

Interactive 4.4 Limitations on GDP

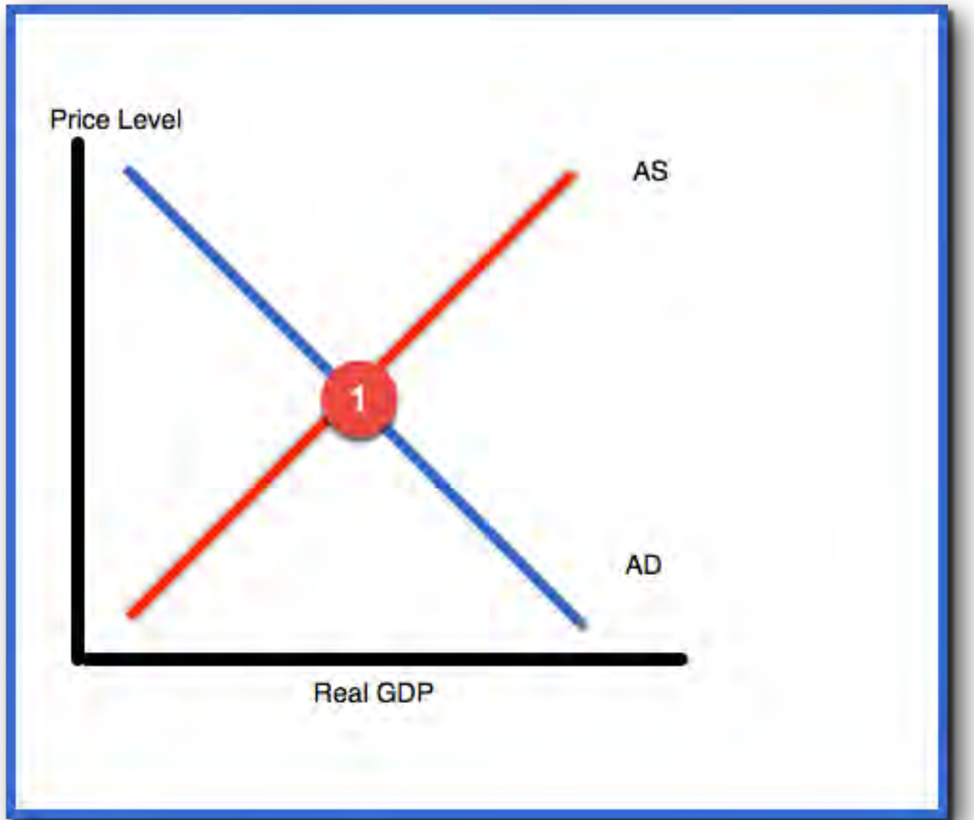
Per Capita GDP

Per Capita GDP is a measure of the total output of a country that takes the gross domestic product (GDP) and divides it by the number of people in the country. The per capita GDP is especially useful when comparing one country to another because it shows the relative performance of the countries. A rise in per capita GDP signals growth in the economy and tends to translate as an increase in productivity.

Interactive 4.5 World Bank per Capita Data

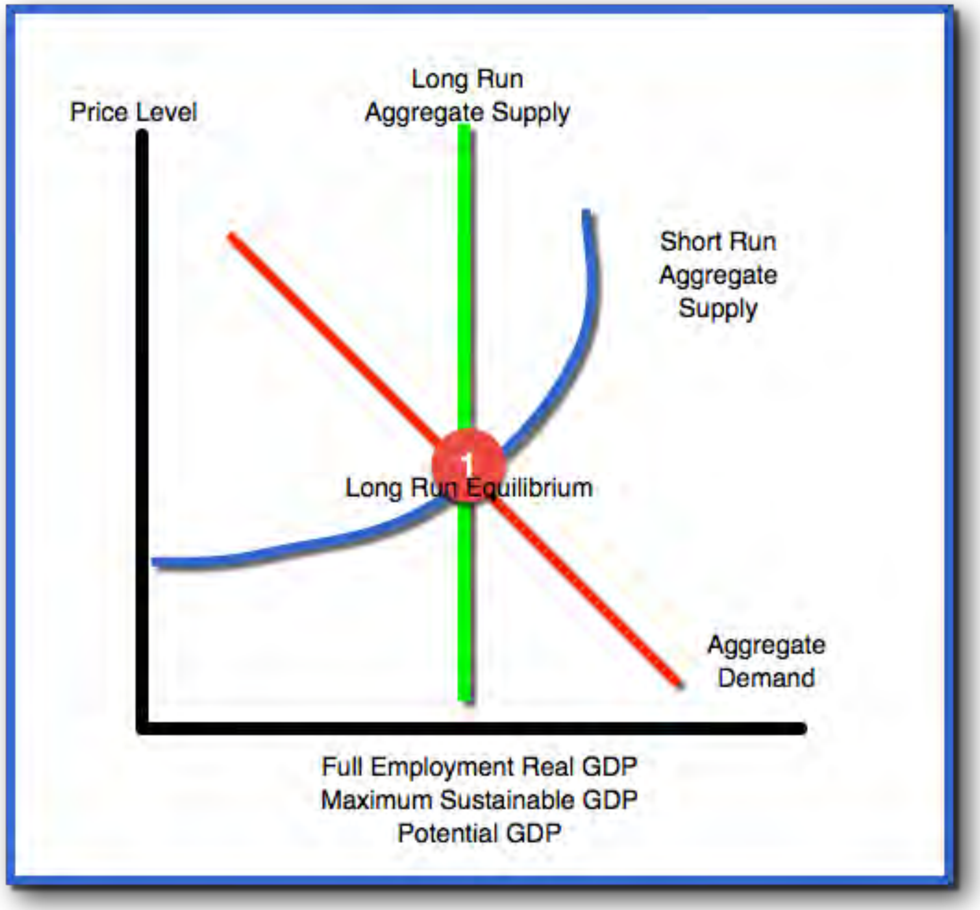
In previous chapters you familiarized yourself with the idea that market supply is the amount of a particular good or service in an individual market. Now, let’s shift our thinking from a microeconomic approach to a macroeconomic approach. Picture a supply curve for an entire economy and not just one market. Aggregate Supply is the total amount of goods and services in the economy available at all possible price levels. Again, with impact, the effect is similar using a macroeconomic approach--if the price level of a product rises, firms have an incentive to increase their product output. And, if a price level falls, a company will reduce its output.

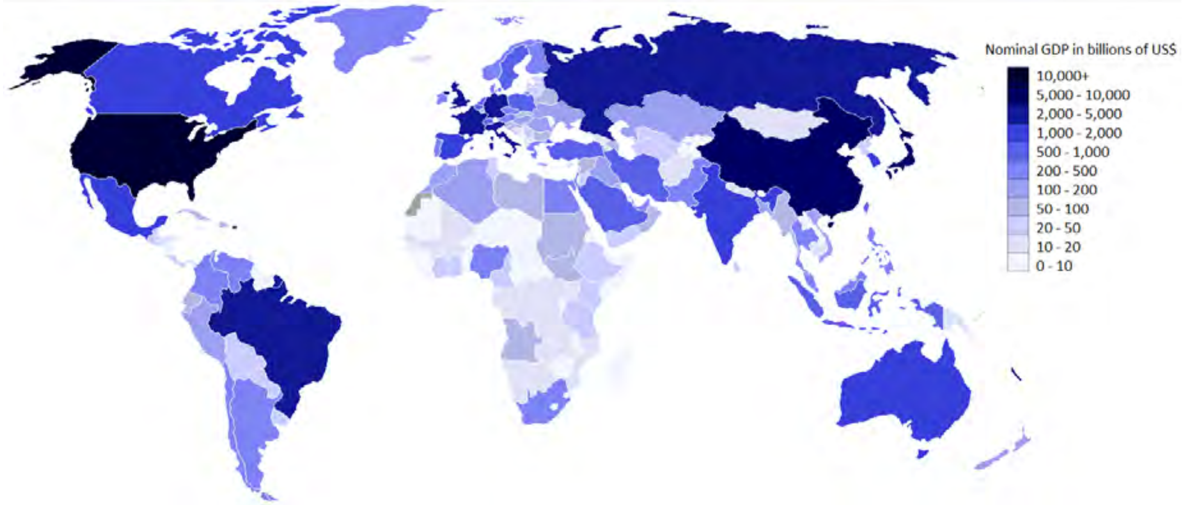
Aggregate Demand is the amount of goods and services in the economy that will be purchased at all possible price levels. Similar to what happens on the supply side, as price levels move up and down, businesses change the quantity of what they buy--in the opposite direction that aggregate supply changes. This is represented in the graph below.



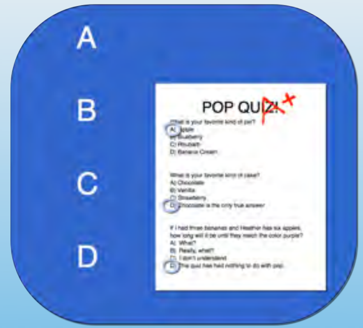
Aggregate Supply (AS) /Aggregate Demand (AD) Equilibrium

Again, in taking a macroeconomic approach when identifying equilibrium, the intersection of AS and AD is the real GDP equilibrium. This is illustrated in the chart below:





Interactive 4.6 Quiz



Test your knowledge on GDP with this quiz.

Section 2

The Business Cycle

QUESTION TO GUIDE INQUIRY

1. **How does the business cycle relate to economic health?**

The Importance of a Business Cycle

A business cycle is a period of macroeconomic expansion followed by a period of macroeconomic contraction. These are also known by economists as fluctuations in the market. These fluctuations occur around a long-term growth trend, and typically involve shifts over time between periods of relatively rapid economic growth (expansion or boom), and periods of relative stagnation or decline (contraction or recession). These fluctuations are often measured using the growth rate of real gross domestic product. Despite being termed cycles, most of these fluctuations in economic activity do not follow a mechanical or predictable periodic pattern. It is through the phases of a business cycle and the recognition of a specific phase, that economists try to predict how the economy will perform in the future.

See the graph on the next page for a visual representation of a business cycle.

The Four Phases of the Business Cycle

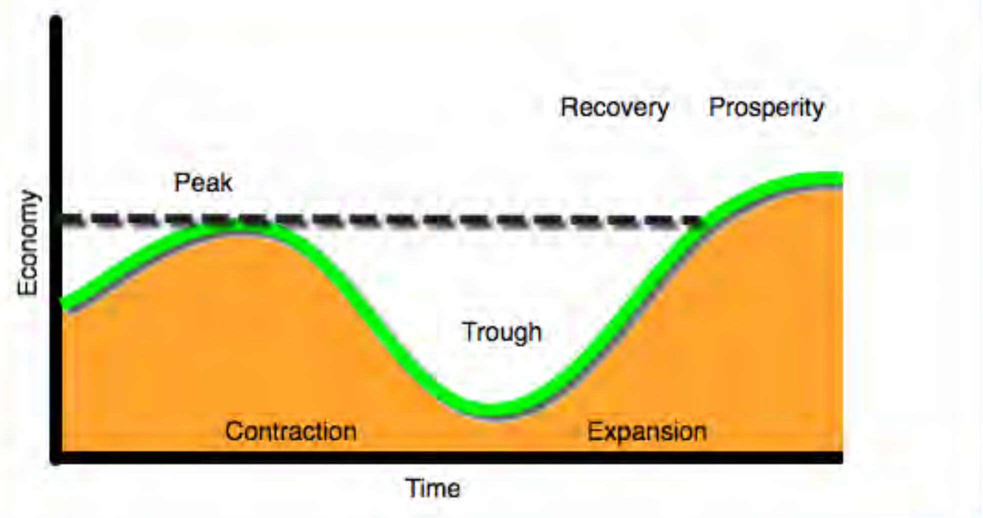
The business cycle (or economic cycle) refers to the short-term fluctuations of economic activity along its long term growth trend. There are four phases to the business cycle:

1. Expansion- Real GDP (production) growing and unemployment rate usually falls.

2. Peaks- Highest point of expansion. Economists can only measure once contraction begins.

3. Recession- Real GDP (production) decreases for 6 consecutive months; unemployment rate usually increases. An extended recession is called a depression.

4. Troughs- Lowest point of the recession. Economists can only measure once expansion begins.



FOUR PHASES OF THE BUSINESS CYCLE

What have periods of depression and recession throughout our nation's history taught us?

A recession is the contraction phase of the business cycle. It begins after the economy reaches a peak of activity and ends as the economy reaches its trough. The National Bureau of Economic Research (NBER) describes it this way:

A recession is a period of decline in total output, income, employment and trade, usually lasting six months to a year and marked by widespread contractions in many sectors of the economy.'

A common rule of thumb for recessions is two quarters of negative GDP growth.

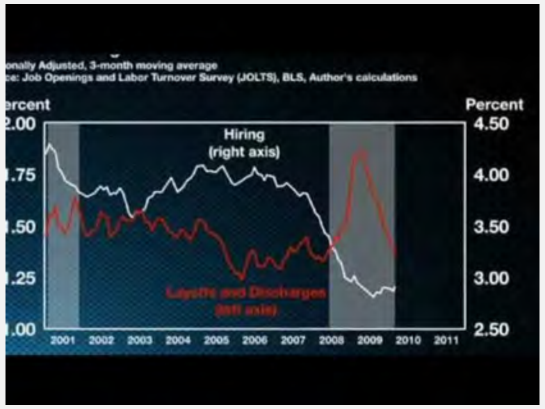
On the other hand, a depression is a prolonged period of economic recession marked by a significant decline in income and employment. Depressions are caused by the same factors that lead to a recession. Notice I used the words 'significant decline' and didn't give an amount of time. That's because the National Bureau of Economic Research decides when recessions occur, but there is no widely accepted definition of depressions. A common rule of thumb that some people use is a 10% decline in economic output as measured by the gross domestic product (GDP).

There hasn't been a decline large enough to call it a 'depression' since the Great Depression. However, the recession that began in 2007 has been called 'The Great Recession' because unemployment was high for a long time, and the recession lasted for 18 months.

Watch 2 videos linked here that will tell you more about the "Great Recession" that began in 2007.

Interactive 4.7 The Great Recession Part 1

Interactive 4.8 The Great Recession Part 2



When looking at the economic history of the U.S., historical downturns in the nation's economy indeed followed a cyclical pattern. It was through studying the cyclical business cycle pattern of The Great Depression that economists like John Maynard Keynes began to consider the idea that modern market economies could indeed, fall into long-lasting contractions AND that government intervention would be needed to pull a country out of such a dramatic economic downward spiral. It is through continued study of the government's role in economic productivity that business cycle analysis will remain an important part of future economic cyclical predictions.

One goal of governmental economic policy is to reduce the destructive aspects of the business cycle. The government would like to lengthen the period between economic cycle and to reduce the severity of the downturns (recessions and/or depressions). In order to determine what actions are best taken the government must have accurate measures of economic activities (GDP measures for example), but they would also like to be able to predict what the future holds economically speaking. While it is impossible to know specifically what might be coming, there are clues. These clues are called economic indicators.

Economic Indicators

Key statistics that indicate the direction of an economy are called Economic Indicators. They are of three main types: (1) Leading indicators (such as new orders for consumer durables) that attempt to predict the economy's future direction, (2) Coincident indicators (such as gross domestic product) that describe current economic activity, and (3) Lagging indicators (interest rates) that become apparent only after the occurrence of the activity.

Use the resources linked below to review examples of economic indicators. Then, select 2 or 3 examples that you think are most important and record your thoughts in place provided below.

Interactive 4.9 US Census - Economic Indicators

Interactive 4.10 National Economic Trends

In the next chapter you will read about how the government might seek to influence economic activity in a market-based economic system.

Section 3

Unemployment

QUESTIONS TO GUIDE INQUIRY

1. **What does the unemployment rate tell us about the economy's health?**
2. **What are appropriate governmental responses to the problems of unemployment and inflation?**
3. **What Rate of Unemployment is Desirable?**

If asked, many people would say that a 100% employment rate (or phrased differently, 0% unemployment) would be the “no-brainer” answer to the question of what rate of unemployment is desirable. Of course, it is not as straightforward as it might seem.

At any one time, millions of Americans may be out of work. For many of them, the experience is devastating. They struggle to pay bills and to put food on the table. In difficult economic periods the number of unemployed people rises. During economic upturns, the unemployment rate falls.

Measuring Unemployment

Unemployment occurs when people are without work and are actively seeking employment. In an economy, the labor force is the actual number of people available for work. Economists use the labor force participation rate to determine the unemployment rate. The U.S. Census Bureau takes a monthly survey of American households, which is known as the Current Population Survey, or CPS. The CPS is used by the Bureau of Labor Statistics to estimate the labor force status of each respondent. If a respondent is not deemed to be in the "labor force," he is not counted toward unemployment calculations. The unemployment rate is the percentage of surveyed individuals who are in the labor force but without a job.

According to the Bureau of Labor Statistics, an individual can only qualify as being unemployed after meeting three criteria:

1. Must be currently jobless

2. Must be actively seeking work

3. Must be available to take a job

Types of Unemployment

Economists describe three types of unemployment: frictional, structural and cyclical. Economists tend to concentrate their studies on the third type. You can read about the types of unemployment here….

Interactive 4.11 The Economist Explains - Three Types of Unemployment

You can see from the definitions of the types of unemployment, not all types of unemployment are equal. Nor are they equally bad or undesirable. In your own words, describe each of the three types of unemployment in the table below. Then, explain in extent to which each of the three types of unemployment are desirable or undesirable.

Activity - For each type of unemployment create a definition and indicate the extent of desirability.

Structural

Frictional

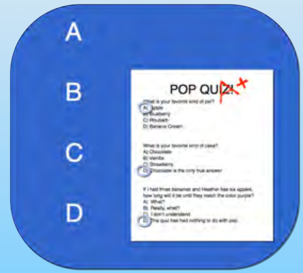
Cyclical

Economists define full employment as occurring when cyclical unemployment does not exist.

Interactive 4.12 Is Full Employment Finally Getting Closer?

Structural and frictional unemployment, however, always exist. Traditionally, full employment is considered to be achieved when overall unemployment stands at between 4 and 6% of the labor force. Most economists argue that lower rates of unemployment result in a rise in inflation.

Interactive 4.13 Check For Understanding Quiz

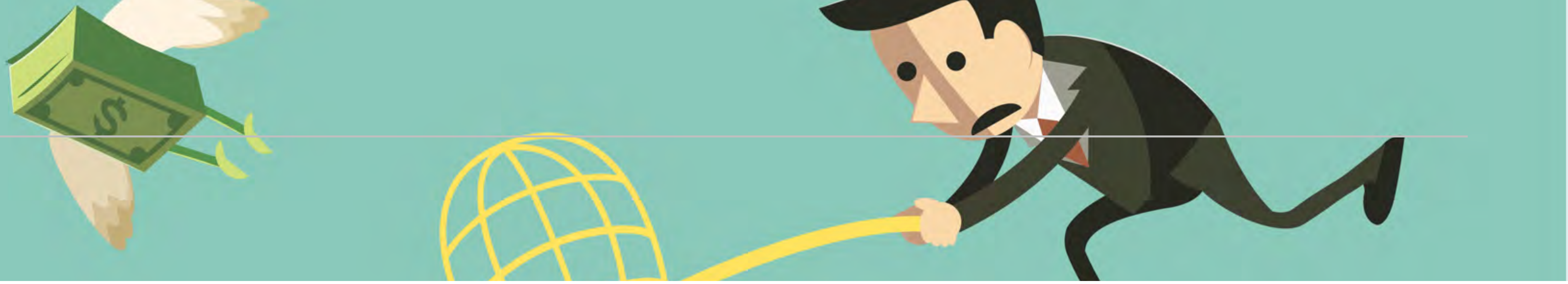


Test your knowledge of unemployment here.

The Economic Cost of High Unemployment

The social costs of unemployment are a result of the economic and psychological effects. The unemployed tend to feel anger, frustration, and despair. There is some evidence that an increase in unemployment tend to be associated with increases in crime, domestic violence, alcoholism, drug abuse, divorce, and other social problems.

Inflation

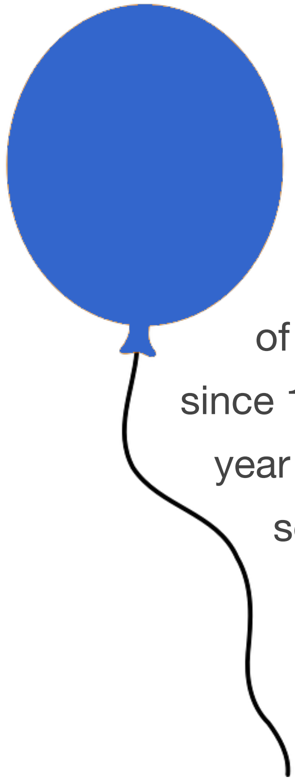


QUESTIONS TO GUIDE INQUIRY

1. **What does the inflation rate reveal about an Economy's Health?**
2. **What Rate of inflation is Desirable?**
3. **Who are the Winners and Losers from Inflation?**

Inflation is defined as a sustained increase in the general level of prices for goods and services. It is measured as an annual percentage increase. As inflation rises, every dollar you own buys a smaller percentage of a good or service.

The value of a dollar does not stay constant when there is inflation. The value of a dollar is observed in terms of purchasing power, which is the real, tangible goods that money can buy. When inflation goes up, there is a decline in the purchasing power of money. For example, if the inflation rate is 2% annually, then theoretically a $1 pack of gum will cost $1.02 in a year. After inflation, your dollar can't buy the same goods it could beforehand.



More money is better… right?

Inflation is like a balloon; a general gradual increase in prices and the fall of in the value of money. Inflation has averaged about 3% since 1926. At that rate, a shirt that costs $20 this year would cost almost $40 in twenty years or so.

Interactive 4.14 What Causes Inflation?

What are the causes of inflation?

Cost push- cost of factors of production are going up causing prices to rise;

Demand pull- consumers pull price up due to their demand;

Interactive 4.16 Cost Push Inflation

Interactive 4.17 Demand Pull Inflation

Interactive 4.15 Federal Reserve Auction Activity

The quantity theory of inflation states that too much money in circulation drives prices up.

Inflation rates throughout history

Throughout history, what were the trends of inflation throughout the decades?

What events were factoring into these periods of inflation and/or deflation?

Given the rates of inflation throughout history, in what decade would you prefer to live in?

Interactive 4.18 Historic Inflation Rates

Use this website to answer the questions to the right.

Who are the winners and losers of inflation?

1. Does inflation hurt borrowers or lenders more?

2. What effect does inflation have on “fixed” income individuals? For example, retirees on Social Security benefits?

How has inflation affected prices in…

What is the price of a product currently? Using the inflation calculator, what was the price of that product 40 years ago? 50 years ago? Knowing the effects of inflation, how can you prepare for the future to decrease the effects of inflation on your future financial decision making?

Interactive 4.19 Historic Inflation Rates

Interactive 4.22 CPI Throughout History

Consumer Price Index (CPI)

Although there are several price indexes, the best-known is the one that focuses on consumers. The Consumer Price Index (CPI) is a price index that is determined by measuring the price of a standard group of goods meant to represent the "market basket" of a typical urban consumer. CPI is a measure of inflation.

Interactive 4.20 Who does inflation Hurt the Most?

Who are the winners and losers in inflation?

Interactive 4.21 Quiz - Inflation

Test your knowledge of inflation here with this quiz.

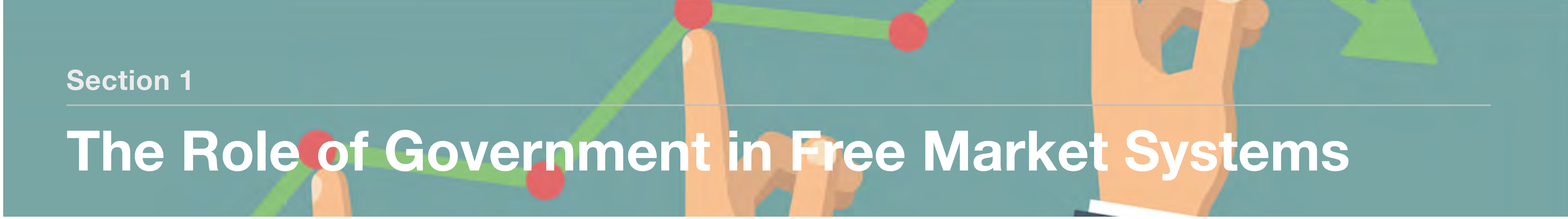
Chapter 5

The Government Intervenes

QUESTIONS TO GUIDE INQUIRY

1. When does government intervention go too far?
2. In what ways does the government intervene the U.S. economy?
3. How does government taxing and spending impact the economy?
4. How does the Federal Reserve's know which tool of monetary policy will ensure economic stability?
5. What is the benefit of government intervention in the economy?

Image source: Shutterstock/Rawpixel



Section 1

The Role of Government in Free Market Systems

QUESTIONS TO GUIDE INQUIRY

1. **When does government intervention go too far?**
2. **In what ways does the government intervene the U.S. economy?**

Markets fail. That is to say free markets do not always offer all of the goods and services that people might want. In addition, free market economies suffer from that difficulties caused by the business cycle. Periods of growth that are too rapid are followed by periods of decline, recession, or even depression. Because of these factors, governments act or intervene in free market systems.

In the United States, the government acts to support free markets as well. The term free market implies that it can exist free from government and that it prospers best when government leaves it alone. Nothing could be further from the truth. In reality, a market economy does not exist separate from government – it is very much a product of government rules and regulations. Our free market system would simply not exist as we know it without the presence of an active government that creates and maintains the rules and conditions that allow it to operate efficiently. What are some of the ways government supports free markets in the United States?

Ways Government Supports Free Markets in the United States

Limited Liability Laws

Property Rights

Law and Order

Bankruptcy Protection

A Stable Money Supply

Patents and Copyrights

Banking Regulation and Insurance

Commercial Transactions Laws

Interactive 5.1
Government Interventions

Read about each of these governmental supports at the website Government is Good

Identify two (2) of the supports listed that you think are most important in supporting free markets. Be sure to explain why you believe the interventions you identify are essential to free market performance.

These are some of main ways government supports free markets. It is easy to see that without government intervention and support free markets would be much less effective in producing and distributing high quality, low-cost goods.

Public Goods and Externalities

For every economic activity there are unintended consequences. Sometimes these unintended consequences are positive in their impact, sometimes they are negative. These unintended consequences are called **Externalities**. A traditional scenario that illustrates the idea externalities is the building of a dam on a river. The primary economic activity involved is producing electricity and/or flood control. But the building of a dam is very invasive and results in many unintended consequences.

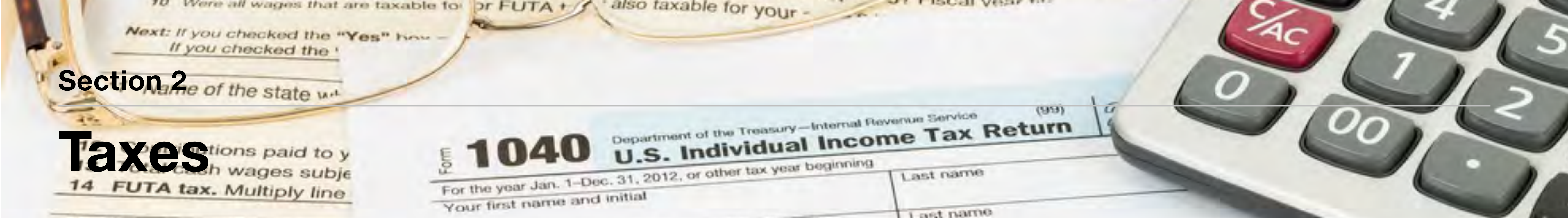
Positive Externalities of Building a Dam	Negative Externalities of Building a Dam
New recreation activities Improved property values	Loss of natural wildlife habitat Increase in number of people

Negative Externalities result in economic costs that are not born, necessarily, by either the producer or purchaser of a good. For example, when a power plant produces electricity pollution is created. The pollution represents a negative externality. Without government intervention (regulation to require pollution control technology or remediation) the cost of the pollution is borne by everyone, not just by the producer and buyer of the electricity.

Negative externalities are one type of market failure. Another category of market failure results from the fact that free markets do not always provide all of the goods that we would like. As a result, government intervenes by providing these goods. They include goods like roads, parks, dams, and libraries. In most cases it is impossible for markets to provide these goods because there is no means to profit from their production. These kinds of goods are called Public Goods. Public goods are goods from which it is difficult to exclude people, even if they do not contribute to paying for their creation. This is called the Free Rider problem. It is impracticable, for example, to exclude people from using the road in front of your home, even if they are from another State. Another characteristic of public goods is the concept of non-rivalry. This characteristic of public goods means that one additional user does not diminish the value of the good for other users. One more car, for example, using the road in front of your home does not diminish its usefulness for other users.

Market Failures and Government Regulation

When markets fail, government intervenes. When desirable goods are not provided by free markets, government produces public goods like roads and libraries. When negative externalities are produced through economic activity, government intervenes through regulation. An electricity producer that also creates pollution may be required to install pollution reduction technology or to pay a fine. By taking these actions, government helps create better functioning free markets in the same manner in which they promote free market efficiency using the techniques listed above and that include creating an environment in which free markets can function by providing for competitive markets, securing property rights, and maintaining law and order.



Section 2

Taxes

QUESTIONS TO GUIDE INQUIRY

1. **How does government taxing and spending impact the economy?**

Whenever we hear the word, “taxes” we tend to envision negative thoughts. After all, by the time we add up state and local taxes taken from a paycheck, it sometimes can be rather depressing. Most of time we don’t automatically think of all of the ways that the collection of taxes benefits us; a lot of the time this is because benefits to all are the result of collective funds--not just the amount that we, as individuals, contribute. Let’s examine the government’s right to tax as well as the purposes that taxation serves.

A **tax** is a required payment to a local, state, or national government. The collection of money through taxation is the primary way that the government collects money. The income that a government receives from taxation as well as other non tax sources is called **revenue**. Without revenue, a government would not be able to provide goods and services that we, as taxpayers, expect them to provide. Therefore, all members of a society must share the responsibility for the government’s raising of revenue.

Although it sometimes may seem like there is no limit to government taxation, this is not the case. The Constitution clearly articulates limits on the government’s power to tax. The purpose of a tax must be “for the common defense and general welfare” of the country. Additionally, federal taxes that are collected must be the same in every state. Also, the kinds of taxes that can be levied are limited. And, export taxes are prohibited by the Constitution. Tax collection is done by the Internal Revenue Service (IRS); the appropriation of tax revenue is conducted through Congress.

Tax Structure and Tax Bases

Interactive 5.2 How should Government Structure The Tax System?

Although there are constitutional limits on its power, the government does collect a wide variety of taxes, which are described in different ways. How the tax is structured and the tax base help clarify why a tax is collected as well as the type of tax that is being collected. To gain a more thorough understanding of tax structures and tax bases, the following activity will be extremely helpful.

Section 3

Federal Spending

QUESTIONS TO GUIDE INQUIRY

1. **How does government taxing and spending impact the economy?**

It is through our democratic process that government officials are given clear guidelines as to how the government's income should be spent. And, as we know, government spending meets numerous needs. How much money should be allocated to specific programs when there is not enough money to satisfy endless needs and wants is part of the government's allocation dilemma.

Mandatory and Discretionary Spending

Realistically, most of the government's annual revenue from taxes is already spent because after the government fulfills it legal obligations, only about ⅓ of the available funds are left to be spent. Mandatory spending is the term used to describe the money that Congress is required by law to spend on certain programs or to use for interest payments on the national debt. The majority of the items that fall under the mandatory spending category are entitlements--social welfare programs that people are "entitled to" benefit from if they meet requirements of eligibility. This also means that the federal government is entitled to guarantee assistance to all who qualify. Because of population increases and a number of other factors, it is easy to see how the percentage of federal spending that is mandatory continues to grow. On the other hand, discretionary spending is spending about which lawmakers are free to make choices; an increase in mandatory spending means a decrease in discretionary funds that are available.

For a thorough breakdown of how each dollar of federal revenue is spent, view the following video:

Interactive 5.3 Where Do Your Tax Dollars Go?

Now that you have a more comprehensive view of how government revenue is spent, try your hand at building a better federal budget. The link below provides access to an economic simulation where you can determine expenditure allocations. If you're extremely confident in your decision-making process, you can even submit your plan to Congress. On the other hand, you may discover that the process isn't as easy as it might seem. Good luck!

Interactive 5.4 Build A Better Budget

Section 4

Fiscal Policy

QUESTIONS TO GUIDE INQUIRY

1. **How does the Federal Reserve's know which tool of monetary policy will ensure economic stability?**
2. **What specific tools does the government have in its fiscal toolbox?**
3. **Should the government intervene using fiscal tools?**

What is fiscal policy?

Watch this clip from the movie Dave and his approach with the budget. Is fiscal policy is as easy as this?

Before continuing think about what "fiscal policy" might be all about. Record 2 or 3 sentences here

Interactive 5.5 Fiscal Policy

Fiscal policy is one of the ways in which the government influences the economy. The goal of fiscal policy is to manage the business cycle so that the economy neither grows too fast nor shrinks too precipitously. Generally speaking the government exercises fiscal policy when it changes its taxing or spending policies. The make these changes in order to influence aggregate demand and/or aggregate supply. During a recession, for example, the government may act to increase aggregate demand by lowering taxes so that individuals have more money to spend. Or, the government might increase spending on projects like road building in order to stimulate economic activity.

Interactive 5.7 Fiscal Policy

You can read more about fiscal policy here: http://www.romeconomics.com/fiscal-policy-explained/

Interactive 5.6 Fiscal Policy

Of course whenever the government intervenes there are potential positive as well as potential negative consequences. In the space below make notes about what you think might be the consequences of governmental intervention in the economy using fiscal policy tools.

Government Fiscal Policy Intervention

Positive Outcomes

Potential Problems

You have probably identified one major concern that arises when the government exercises fiscal policy tools. Whenever the government either lowers taxes or increases spending (or both), there is a financial consequence. During recession when the government exercises these fiscal tools the government faces a fall in tax revenue due to a reduction in economic activity. In other words, when the economy shrinks during a recession, there are fewer jobs and people and businesses earn less money. The result is less government tax revenue. Then, in addition, the government further exacerbates the issue by lowering tax rates (reducing revenue) or spending more on projects. The goal is to use fiscal tools to reduce the length and severity of an economic recession. But at what cost? The result is often increasing annual government budget deficits and a corresponding increase in the national debt. Check out an estimate of the current budget deficit or surplus and debt at the link below.

Interactive 5.8 US Debt Clock

What is the current estimated annual deficit according to this website?

What is the current estimated national debt according to this website?

How much would each citizen pay to eliminate the debt?

How much would each taxpayer have to pay to eliminate the debt?

Your reaction to seeing this page, if you are anything like me, is one of awe and dismay. A natural reaction is to ask oneself if the cost of governmental fiscal policy stimulus programs are worth the cost in terms of deficit and accumulated debt. The answer to this question begs another: What is the result of fiscal policy action? Do they work?

Each of the articles linked on the website widget represents a different view about the efficacy of fiscal policy programs. Read the articles and prepare to create an argumentative essay in which you will advocate for or against the use of fiscal policy stimulus plans.

Interactive 5.9 Fiscal policy Articles

After reading the articles use Google Docs or another word processing program to write an argumentative essay.

Arguing for Fiscal Policy

Governments use fiscal policy tools including increasing or decreasing taxes or spending in an attempt to influence the business cycle. For example, a government might cut taxes in order to shorten the length or severity of a recession. Some argue that fiscal policy tools are an effective tool to reduce problems associated with a recession like high rates of unemployment. Others maintain that these governmental actions do little to diminish the negative effects of a recession while increasing the burdens of governmental debt accumulation. Are governmental fiscal policy actions effective and worth the cost?

In your essay, take a position on this question. You may write about either one of the two points of view given, or you may present a different point of view on this question. Use specific reasons and examples to support your position.

Your essay will be assessed using the following guidelines….

1. A strong opinion is clearly stated

2. Two detailed arguments are articulated

3. Your arguments are supported with information from the articles

As you reflect on the efficacy of fiscal policy, view the video below. Your teacher will conclude this section with a classroom discussion concerning the conflicting views of the economists Friedrich Hayek and John Maynard Keynes. First, read the article by Nicholas Wapshott linked here. During reading you should take notes in a table like the one below.

Interactive 5.10 The Keynes Hayek Showdown

Summarize the economic disagreement between Keynes and Hayek in 3 to 5 sentences below

Views of Keynes

Views of Hayek

Now, as a class, watch the video linked in Interactive 5.11. Be prepared to discuss as a class.

Interactive 5.11 Fear the Boom and Bust

Interactive 5.12 US Budget visualized

Interactive 5.13 Budget Simulation: How do you reduce the deficit?

Now you're ready to write:

What is your fiscal policy? Add taxes, cut taxes; add programs; cut programs. What is your goal with your choice of policy(s)?

Section 5

The Federal Reserve and Monetary Policy

QUESTIONS TO GUIDE INQUIRY

1. **What is Monetary Policy?**
2. **When does the government intervene using monetary tools?**
3. **What specific tools does the government have in its monetary toolbox?**
4. **What is the Federal Reserve? What are its goals/importance?**

The following has been adapted from http://www.federalreserve.gov/monetarypolicy/fomc.htm

The term "monetary policy" refers to the actions undertaken by the US central bank, often referred to as the Federal Reserve. Their goals are to influence the availability and cost of money and credit to help promote national economic goals. The Federal Reserve Act of 1913 gave the Federal Reserve responsibility for setting monetary policy.

The Federal Reserve controls the three tools of monetary policy--

1. **open market operations,**

Open market operations (OMOs)--the purchase and sale of securities in the open market by a central bank--are a key tool used by the Federal Reserve in the implementation of monetary policy. The short-term objective for open market operations is specified by the Federal Open Market Committee (FOMC). Historically, the Federal Reserve has used OMOs to adjust the supply of reserve balances so as to keep the federal funds rate--the interest rate at which depository institutions lend reserve balances to other depository institutions overnight--around the target established by the FOMC.

The Federal Reserve's approach to the implementation of monetary policy has evolved considerably since the financial crisis, and particularly so since late 2008 when the FOMC established a near-zero target range for the federal funds rate. Since the end of 2008, the Federal Reserve has greatly expanded its holding of longer-term securities through open market purchases with the goal of putting downward pressure on longer-term interest rates and thus supporting economic activity and job creation by making financial conditions more accommodative.

2. the discount rate,

The discount rate is the interest rate charged to commercial banks and other depository institutions on loans they receive from their regional Federal Reserve Bank's lending facility--the discount window. The Federal Reserve Banks offer three discount window programs to depository institutions: primary credit, secondary credit, and seasonal credit, each with its own interest rate. All discount window loans are fully secured.

Under the primary credit program, loans are extended for a very short term (usually overnight) to depository institutions in generally sound financial condition. Depository institutions that are not eligible for primary credit may apply for secondary credit to meet short-term liquidity needs or to resolve severe financial difficulties. Seasonal credit is extended to relatively small depository institutions that have recurring intra-year fluctuations in funding needs, such as banks in agricultural or seasonal resort communities.

The discount rate charged for primary credit (the primary credit rate) is set above the usual level of short-term market interest rates. (Because primary credit is the Federal Reserve's main discount window program, the Federal Reserve at times uses the term "discount rate" to mean the primary credit rate.) The discount rate on secondary credit is above the rate on primary credit. The discount rate for seasonal credit is an average of selected market rates. Discount rates are established by each Reserve Bank's board of directors, subject to the review and determination of the Board of Governors of the Federal Reserve System. The discount rates for the three lending programs are the same across all Reserve Banks except on days around a change in the rate

3. reserve requirements.

Reserve requirements are the amount of funds that a depository institution must hold in reserve against specified deposit liabilities. Within limits specified by law, the Board of Governors has sole authority over changes in reserve requirements. Depository institutions must hold reserves in the form of vault cash or deposits with Federal Reserve Banks.

The dollar amount of a depository institution's reserve requirement is determined by applying the reserve ratios specified in the Federal Reserve Board's Regulation D to an institution's reservable liabilities (see table of reserve requirements). Reservable liabilities consist of net transaction accounts, nonpersonal time deposits, and eurocurrency liabilities. Since December 27, 1990, nonpersonal time deposits and eurocurrency liabilities have had a reserve ratio of zero.

The Board of Governors of the Federal Reserve System is responsible for the discount rate and reserve requirements, and the Federal Open Market Committee is responsible for open market operations. Using the three tools, the Federal Reserve influences the demand for, and supply of, balances that depository institutions hold at Federal Reserve Banks and in this way alters the federal funds rate. The federal funds rate is the interest rate at which depository institutions lend balances at the Federal Reserve to other depository institutions overnight.

Changes in the federal funds rate trigger a chain of events that affect other short-term interest rates, foreign exchange rates, long-term interest rates, the amount of money and credit, and, ultimately, a range of economic variables, including employment, output, and prices of goods and services.

Interactive 5.15 Fear the Boom and Bust

Interactive 5.14 Fight of the Century - Round Two

What is the goal of the FOMC and Monetary Policy?

What are the goals of The FED?

Interactive 5.16 What should the FED do?

What are the roles of the FED?

How would the FED stabilize prices?

How can the FED enhance employment?

How can the FED policies stable the market and promote growth?

What is your monetary policy?
Contractionary or Expansionary?

What is your goal with your policy?

What is the relationship between monetary and fiscal policies?

How does Monetary policy work?

Final performance task:

From the text sources provided in this chapter, explain how the philosophies on the relationships between money, supply, inflation, and recessions are presented through the perspectives of different economic viewpoints—Adam Smith (Neo-Classical), John Maynard Keynes (Keynesian), and Milton Friedman (Monetarist). This should be done through note-taking of each text in which accurate summaries are synthesized and compared through a Venn Diagram, chart, or other type of graphic organizer. Conclusions on the relationships between key ideas and details should be drawn through comparison and contrast of philosophies.

Using notes from viewing these documents, draw comparisons between the current state of the economy and The Great Depression (different economic conditions) by answering the following question in an essay: **Would the implementation of the philosophy of a single economist (Smith, Keynes, or Friedman) have prevented The Great Depression and also improve the current state of the economy?**

Chapter 6

Global Interactions and Decision Making

QUESTIONS TO GUIDE INQUIRY

To what extent are globalization and international trade creating a better world?

Do the benefits of economic development and globalization outweigh the costs?

What factors encourage or hinder economic development?

Does the end result of economic transition outweigh the internal challenges a nation faces in the process?

Despite the challenges globalization incites, has economic freedom for a majority of the world's population been achieved?

Are we better off when we trade with other countries?

Why do nations trade with each other?

How has trade changed over time?

What can governments do to encourage or discourage trade?

Image source: Shutterstock/Rawpixel

Section 1

Globalization and Economic Development

QUESTIONS TO GUIDE INQUIRY

1. **To what extent are globalization and international trade creating a better world?**
2. **What factors encourage or hinder economic development?**
3. **Does the end result of economic transition outweigh the internal challenges a nation faces in the process?**
4. **Despite the challenges globalization incites, has economic freedom for a majority of the world's population been achieved?**

Follow the links below to observe some pictures that illustrate the differences that exist between countries at different levels of development. Feel free to google image search additional countries that come to mind as "developed" or "developing" to further your research.

Interactive 6.1 20 Powerful Photos of Kids Bedrooms From Around the World

Interactive 6.2 Material World - A Snapshot of Possessions

Discussion Questions

What similarities do you notice between the pictures?

What differences do you notice between the pictures?

What are your overall impressions of these pictures?

What questions do you now have?

Do the Benefits of Economic Development and Globalization Outweigh the Costs?

Scarcity means that individuals as well as entire countries have to make choices about what to do with their resources. How a country answers the three fundamental economic questions (What to produce? How to produce? Who receives what is produced?) determines what type of economy it possesses. These decisions are also made on a global level, meaning the coordination of the planet's resources involves making decisions on what should be made, how it should be made, and to whom it will be distributed. Thanks to improved transportation and communication, demand in one country may be easily met by a country in the opposite hemisphere. Of course, this give-and-take has been going on for centuries, but international trade over the past half-century has reached new heights, resulting in globalization, or the growing interdependence of countries upon one another. Countries are now dependent on one another for basic goods and services that might have once been produced within their own political boundaries. We have already learned how the law of comparative advantage explains why it is economically beneficial for each country to specialize in certain markets and then export its surplus to other countries. More and more, the United States, as well as other countries, is specializing and because of that, depending on other countries to sell their products to the U.S.

Decreased costs in trade, due to improved technology and the loosening of trade restrictions have encouraged countries to cooperate with each other as partners in commerce. While this global economic growth is commendable, it is important to remember that problems which once were isolated to a single nation now largely impact the global market. Many of these problems then become so big that it requires multiple nations to collaboratively work together to overcome them. These issues are frequently discussed in the news, such as climate change, deforestation, financial collapses, national credit ratings, and terrorism. As you can see from the list, many of these issues are directly economical, while others appear geographical or political. Ultimately, the problems we face as a planet are best understood by looking at them in their entirety under a global economic lens.

Interestingly, with improved communication and the growing popularity of social networking sites like Facebook, many developed democratic countries have grown more aware of the plight of some lesser developed nations, leading to a concern for citizens of other nations. Should we be concerned how our products are being produced? How they are getting to us? Whether the people making them are being treated fairly? Have safe working environments with a quality of living wage? Are guaranteed the same democratic rights as we are?

Economic Indicators and Data

Economic indicators are data measurements utilized by economists to help make generalizations about a country's economic growth and level of development. You might wonder why it matters how countries stack up against one another, but this information is critical to understanding the global economy. Information gathered about different countries helps countries to make decisions about how to handle international trade, military conflicts, political agreements, and diplomatic relations. A lack of this knowledge about the rest of the world is a deterrent to achieving a better world through globalization and continued development.

Gross Domestic Product (GDP)

Pure economic growth is often measured by calculating a nation's gross domestic product, or GDP. GDP is the total monetary amount of goods and services produced within a country for a given year. Using GDP to measure a country's wealth is a simple and straightforward way to categorize a country as rich or poor. However, if a country has an incredibly high GDP and also a huge population, this number might misrepresent the overall well being of the inhabitants of that country. For instance, China's estimated GDP in 2013 was approximately $13.39 trillion. The United States' GDP for the same year was $16.72 trillion. While their GDPs are comparable, the average income of their inhabitants is not. China has a population close to 1,355 million, whereas the United States has only a fraction of that with 314 million. Once you divide the total GDP by the total population, you discover that the GDP per capita for China is $9,800 while the United States' is $52,400. What GDP per capita represents is the division of a nation's production amongst the people that live there. GDP per capita is a useful economic indicator to demonstrate the relative productive capabilities of a country, but is this all that matters? Many economists, politicians, and human rights activists, would argue that only looking at GDP per capita as a measurement of economic growth is inadequate in gathering a complete picture of a country's development.

Other Factors Utilized to Measure Development

GDP as a measurement of economic growth is just one way economists reflect on a country's development. A nation's level of energy consumption, the distribution of its workforce, the availability of consumer goods, and social indicators are other important factors in determining whether a country is more or less developed.

The amount of energy a nation utilizes is closely related to its level of industrialization. Industrialization is how an economy organizes itself around the purpose of manufacturing. Because almost all types of manufacturing require large amounts of energy, it's easy to draw the conclusion that high levels of energy consumption equals high levels of industrial activity which occur in developed countries. Conversely, a lower level of energy used usually indicates a low level of industrial activity, characteristic of less developed countries.

Another factor important for consideration in the development level of a nation is the distribution of its workforce. Specialization is a critical component of this factor. If the majority of a nation's population are subsistence farmers, only raising food for themselves, few are available to work in industry where specialization occurs, thus greatly contributing to a nation's ability to generate cash income needed to advance its economy.

The amount of consumer goods a nation can produce on a per capita scale is also an indicator as to the nation's level of development. If a large number of nonessential goods are available, this indicates that a large number of a nation's people not only have essential goods but also have enough extra income to purchase nonessential goods such as cars, appliances, and technology, thus indicating a higher level of development.

Social indicators that are used to measure the level of a nation's development are often literacy rate--the percentage of population (usually over age 15) that can read and write, life expectancy--the average person's life span, and infant mortality rate--the number of deaths that occur in the first year of life for every 1,000 live births within a country.

Additional indicators that tend to occur in developed nations include higher levels of consumer spending which are also associated with a healthy population with low infant mortality rates, high life expectancy rates, higher levels of productivity, high literacy rates, steady levels of urbanization and a secure infrastructure.

Economists often discuss the development of a nation in an attempt to describe the living conditions within a country. Nations are categorized as either being more or less developed. Whether a country is more or less developed does not reflect the worth of a country or its people, but instead the material well-being of a nation. Being labeled as a developed country does not make it superior to a less developed country. Instead, a country's level of development tells us what it is like for the people that live there and provides a glimpse into the quality of life for that nation. Countries are then categorized as either more or less developed based on the data collected.

MDCs: More Developed Countries

More developed countries are also sometimes referred to as "developed countries," because they are industrially advanced and have high rates of production as a result. Higher productivity leads to a higher standard of living because of the relatively inexpensive access to a variety of goods and services. These populations also have higher life expectancies due to high quality health care and lower birth rates. As a result of higher productivity, these countries tend to have higher gross domestic production (GDP). Higher levels of GDP coupled with lower population growth rates leads to higher GDP per capita, or the amount of GDP divided by the population.

Image source: http://pixabay.com/en/tractor-vehicles-farm-machinery-387275/

GDP per capita = (Consumption Spending + Investment Spending by Businesses + Government Spending) + (Net Exports)/Population

LDCs: Less Developed Countries

Less developed countries, sometimes also referred to as “emerging markets,” are countries that have lower standards of living compared with more developed countries. LDCs tend to have lower per capita GDP, meaning people within these countries tend to make very small incomes resulting in many people living in poverty. These countries are called “less developed” because they are not equipped with the modern industry that more developed countries typically have. Lacking industry, LDC economies are usually based on agriculture and therefore unable to trade in more lucrative global markets.

To understand what distinguishes MDCs from LDCs, let’s begin with the most basic needs for humans: food and shelter.

Food in MDCs

A plentiful food source is the most basic requirement for any population to thrive. Think back to your World History Course, and how it was necessary for any major civilization to first have an abundant and sustainable food source. MDC’s, through industrialized agriculture, have found a way to get the most out of their land by using genetically modified seeds, fertilizers, pesticides, and machinery to grow high-yielding crops. The successful use of technology to greatly improve farming in MDCs has allowed for very large quantities of food to be produced at a relatively low cost and with very little labor. For instance, in the United States, approximately 2% of the population actively farms, and despite this low participation rate, one-third of farmed land is designated for exports. Due to the highly innovative agricultural techniques utilized by MDCs, farming has become a specialized form of production that has freed many industrial nations from laboring in the fields as well as from hunger. Having a plentiful food supply allows for people to branch out into other areas of specialization.

Food in LDCs

Food insecurity is a constant problem in many LDC’s because farming is largely subsistence in nature, meaning families farm their land to provide for themselves and have little left over to sell to others. Inadequate food sources requires that LDCs import food from other nations to meet their needs. However, for many that are too poor to purchase food, undernourishment is a serious concern. Poor diets coupled with limited access to health care leads to other problems that are exemplified in looking at the life expectancy and infant mortality rate. While life expectancy, or the average age one lives up to, is approximately 80 years in MDCs, the average life expectancy in LDCs is 61.5 years.

Country	MDC/LDC	Life Expectancy[1]
United States	MDC	78.8 years
Japan	MDC	81.4 years
Sierra Leone	LDC	45.6 years
Nepal	LDC	68.4 years

Interactive 6.3 Life Expectancy Data

Use this website to look up the life expectancy in different countries to compare it to others.

Shelter in MDCs

In many MDCs there are building codes that specify certain safety requirements that must be met for a house to be considered livable. Among these requirements are that the house have running water, working ventilation and heating systems, structurally safe construction, smoke detectors, and properly installed electrical wiring. While these codes are frustrating, and cost money to enforce, they are there to protect the safety of inhabitants.

While shelter is referring to the actual housing that people live in, when discussing the development of a nation it should also take into consideration the location in which one resides. Many MDCs are already urbanized, meaning large percentages of people reside in the cities, usually 80% or more. Urbanization, meaning a movements of people from the country to the city, is a growing global trend. However, many MDCs already have a significant population living in their cities and so the rate at which they are urbanizing is relatively low. The cities in MDCs tend to have a strong infrastructure in place, meaning they have maintained roads, adequate electrical grids, effective sanitations systems, public education, and modern health care available.

Shelter in LDCs

Comparatively, LDCs tend to have approximately half of their populations living in rural areas and the other half living in cities. Food is not as industrialized in LDCs and so more people have to farm to create an adequate food source for the entire population. LDCs are urbanizing at a much faster rate than MDCs. This makes sense considering most MDCs already have a substantial percentage of their population living in their cities, whereas LDCs have greater numbers in rural, or country, areas. Part of the reason the shift is so significant is because a large proportion of people in LDCs are living in rural areas, and are seeking out the amenities that are only available in the larger hubs of such countries. These amenities are part of the infrastructure of a city, and include access to educational opportunities, electricity, health care, and housing. Many of the largest and fastest growing cities are in LDCs because there is such a large percentage of the population in these countries living in rural areas who would like to pursue a life outside of the instability of farming. This fast rate of urbanization poses problems in and of itself. With an increasing population, the infrastructure of the city is often strained and pushed to the brink. Power outages, problems with sanitation, and crime are prevalent in LDC cities. For instance, LDCs do not have the same building codes on the books as MDCs, and so their shelter is constructed largely based off of cultural traditions. Without the proper regulation, many people end up living in barely livable tenant houses that threaten the health and safety of its inhabitants.

Urbanization by Country

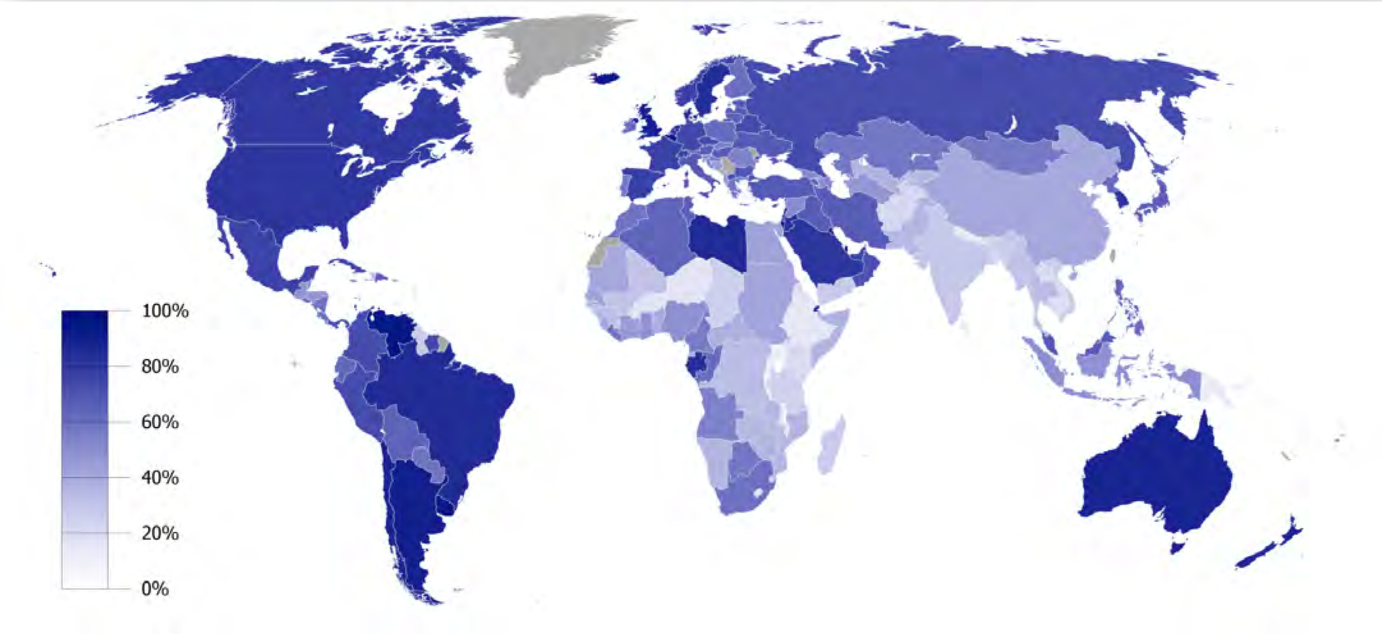


Image source: https://en.wikipedia.org/wiki/Urbanization_by_country#/media/File:Urbanized_population_2006.png

Which parts of the world have the largest urban populations?

Which parts of the world have the least urbanized populations?

Using your knowledge of economic systems in various countries, explain how these observations match up with the urbanization of a country.

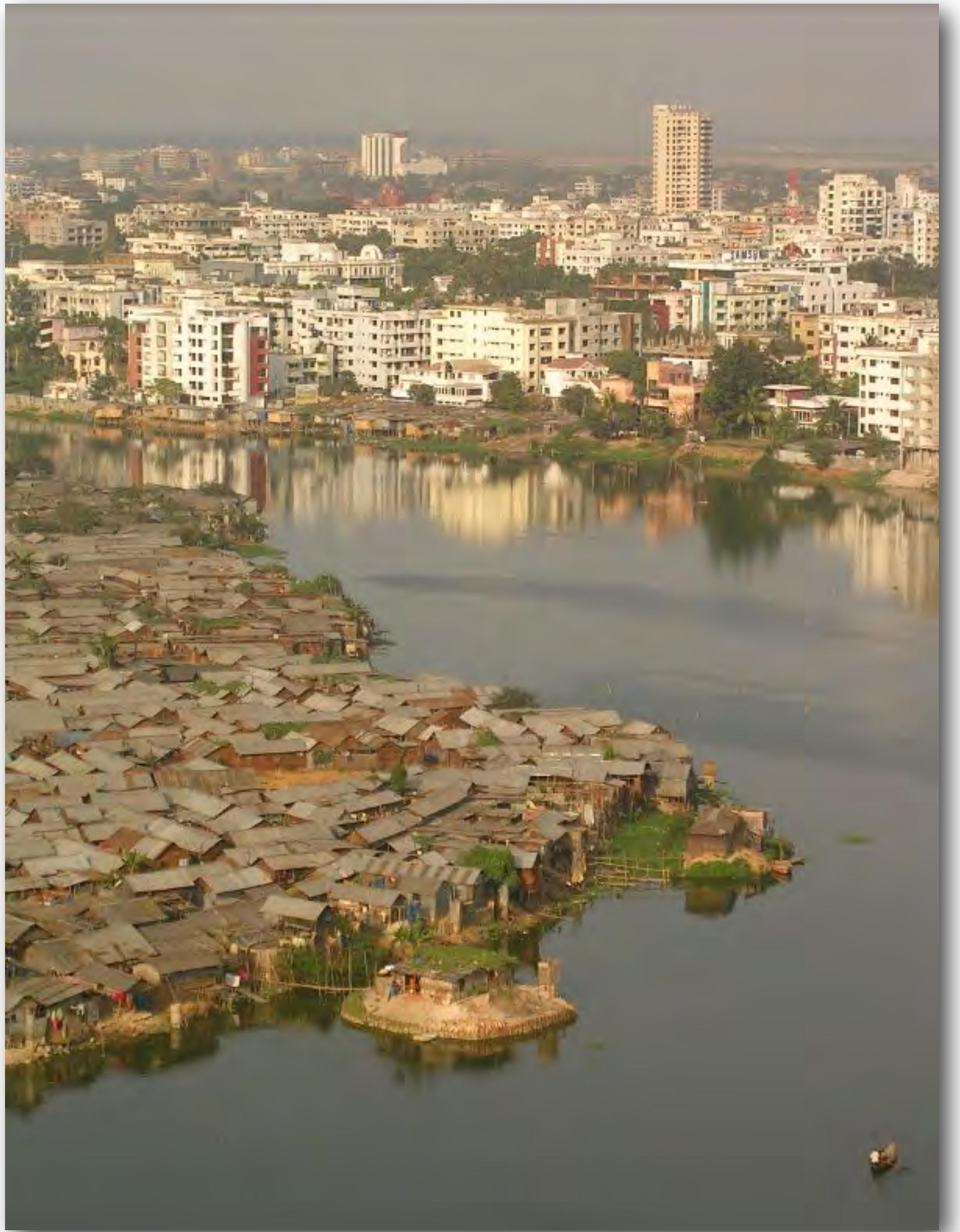


Image source: http://en.wikipedia.org/wiki/Slum#/media/File:Riverside_slum_in_Bangladesh.jpg

More Developed Countries

More Developed Countries	Less Developed Countries
More industrialization	More agrarian based economy
High levels of specialization	Local markets and small scale trade
Effective and widely accessible healthcare	Poor medical services; infectious, respiratory, and parasitic diseases common
GDP is high	GDP is low
Population growth rate is low/declining	Population growth rate is relatively high
GDP per capita is high	GDP per capita is low
Public education systems provided for all	Limited/restricted access to educational opportunities
High literacy rates	High illiteracy rates; lack of technological knowledge
Farming is commercialized and highly mechanized leading to high crop yield	Populations tend to be rural with a growing impoverished urban population
Overabundance of food is sometimes a concern for health	Sometimes inadequate access to food
Service and manufacturing industries are prominent in the economy	Poor housing and few public services are available to the people
Very few people are involved in agriculture	High birth rates and death rates;
Low birth and death rates; large proportion of the population is over age 65	High levels of malnutrition resulting from lack of access to a diverse diet with adequate source of protein

Using the chart above as well as the map on the previous page, make generalizations about which nations look to be LDC's - make historical connections to imperialism, colonialism, or natural wealth?

It would be simple to categorize MDCs as "rich" and LDCs as "poor," and in terms of material wealth, this would be true. However, it is important to remember that there are consequences to development that are not reflected in GDP per

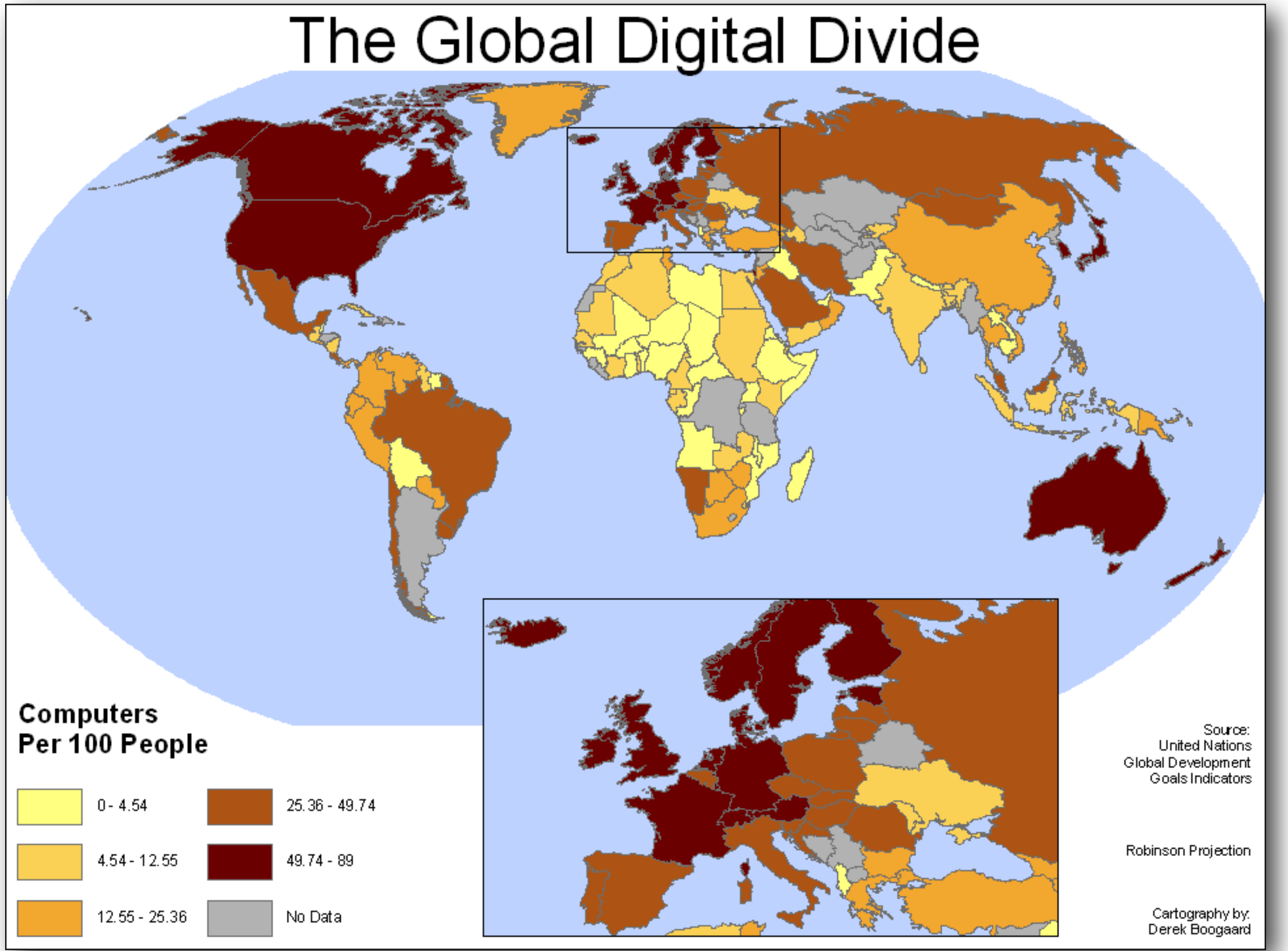


Image source: https://en.wikipedia.org/wiki/Digital_divide#/media/File:Global_Digital_Divide1.png

capita. The ramifications of globalization and development are discussed later in this chapter.

HDI Human Development Index

Interactive 6.4 Human Development Reports

Use this website to choose two countries to compare the elements in the blue box below.

Qualitative v. Quantitative points of comparison.

Measures of Development

Per capita GDP
literacy rate

life expectancy

infant mortality rate

industrialization

subsistence agriculture

world population clock

Primary (harvesting resources), secondary (industrialization), tertiary economic activity (service)

Urban living rural living population

What factors encourage or hinder economic development?

Analysis of factors leading to the labeling of a country as developed or less developed can provide a detailed image as to the quality of life of a nation. However, many nations face hindrances to continued development that a label cannot solve such as rapid population growth, limited resources and capital, political obstacles, and a lack of large sums of money from either internal financing sources or foreign investment to finance development on a large scale.

Despite huge, and at times, difficult challenges that less developed nations face, several public, international organizations exist to promote economic development. Some of the most prominent are the United Nations Development Program, the International Monetary Fund, and the World Bank.

Founded during WWII (1944), the mission of the World Bank is to raise money on world financial markets in order to offer loans to less developed countries. Additionally the World Bank works with other organizations to promote economic development all over the world and also provides advice to LDCs on the most effective ways to help build their economies. The United Nations Development Program (UNDP), through grant funding, is dedicated to earmarking 90% of its funding to eliminating poverty in 90% of the world's poorest nations. And through economic policy advice and technical assistance, the International Monetary Fund promotes economic development of LDCs.

Other independent groups known as nongovernmental organizations (NGOs), raise money to fund aid and development programs. Organizations such as the Red Cross, CARE, and the World Wildlife Fund to name a few, often focus their aid in the form of food or medical help often when natural disasters happen or wars occur.

Interactive 6.5 CIA Fact Book

How do the policies of these specific institutions actually affect various developing countries (Asia, Africa, Central America), as compared with developed countries (Western Europe, America)? Grab at least two countries from each region to complete a case study on.

Does the end result of economic transition outweigh the internal challenges a nation faces in the process?

Currently many countries are undergoing the economic transition from a less developed country to a more developed country. For many countries undergoing this type of economic transition, the growth has been rapid; other nations are experiencing a complete change of their economic system. The process of privatization--selling or transferring government-owned businesses to individuals, is one of the first steps many countries are taking toward a market economy.

Although it might appear that privatization is always a step in the right direction toward the achievement of a market economy, it can be a painful process. Often political and economic changes are dramatic, resulting in initial hardships. For example, the uneven distribution of income frequently occurs resulting in the rise of corruption and widespread organized crime. Other problems include heavy reliance on the export of natural resources, increased pollution, depletion of natural resources, sporadic poverty and unemployment, growing gaps between classes, continued reliance on subsistence farming, overdependence on natural resources, health epidemics, and political unrest or instability. Despite these challenges, nations continue to persevere because the interconnectedness of producers, consumers, and financial systems is becoming tighter at a more rapid rate than ever before.

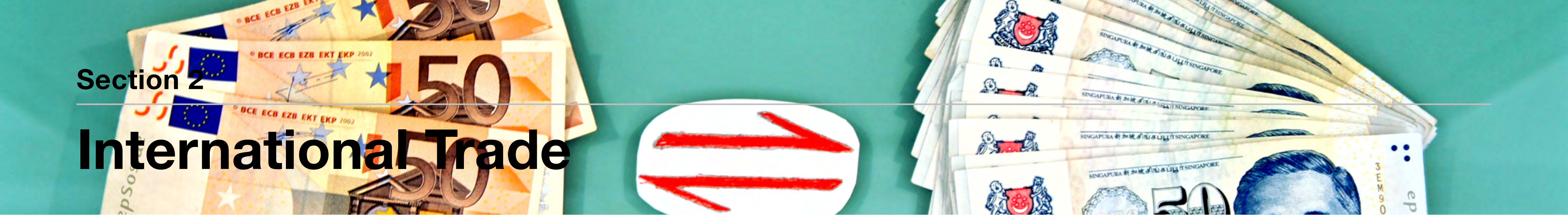
Despite the challenges globalization incites, has economic freedom for a majority of the world's population been achieved?

While globalization is a huge part of life today, it is also responsible for the creation of many modern-day challenges. Interconnected financial markets can be responsible for widespread financial crisis throughout many nations due to the widespread ripple effect for both investors and ordinary people.

And while multinational corporations tend to have huge amounts of capital to introduce technology to developing countries, critics sometimes complain that these corporations do little to assist less developed nations. Structural unemployment is another issue associated with globalization. Offshoring--companies who move parts of their operations to other countries resulting in job loss. Additionally, the chase for job opportunities can cause rapid urbanization for which countries are not prepared to handle. As time passes and globalization continues to create new opportunities for many, multiple challenges lie ahead.

Economic development has often come at the hands of protection of the environment. While sustainable development--meeting current development needs without depleting resources needed by future generations is the goal, exploitation of resources does occur. Deforestation has become a major issue. In addition, the competition for additional resources such as water and fuel cause other economic issues. And while other challenges exist, the pressure to innovate in order to solve current challenges will only become greater as each day passes.

Arguments Against Globalization	Arguments in Support of Globalization
Multinational corporations seeking to make a profit exploit people through their labor, and abuse the environment.	Free trade and the effects of comparative advantage increases our productivity as a planet, and thereby improves the average standard of living for all countries.
Developing countries have governments that have lower standards of protection for labor and the environment.	Consumers benefit from the increased productivity, and will have a larger variety of goods available at lower prices.
Laborers in developing countries often have unsafe working environments, and receive low wages.	In countries where workers are supposedly exploited, there are long waiting lists of hopeful future employees who want to get hired in with the multinational corporations.
As a result of multinational corporations seeking out the lowest cost options, they will move many of their factories and jobs to other countries, resulting in lower job availability in developed countries. (**Outsourcing**)	Multinational corporations often provide higher wages and better benefits in developing countries compared with what local businesses are able afford.



Section 2

International Trade

QUESTIONS TO GUIDE INQUIRY

1. **Are we better off when we trade with other countries?**
2. **Why do nations trade with each other?**
3. **How has trade changed over time?**
4. **What can governments do to encourage or discourage trade?**

Take a moment to make a mental list of items you have purchased recently. Have you purchased a cell phone? Athletic shoes? If you have, chances are they were manufactured outside of the US. Why is that? Surely, America has enough resources to make most, if not all, of what we need, right? Not so fast. We need to go back to a concept from Chapter 1 to answer that question. It is all about the factors of production.

> Quick Review- Name and describe the three factors of production.

Image source: http://www.europas.irtea.gr/wp-content/uploads/2012/09/Inta-1.jpg

Land

Scarcity explains why different countries have different resources and therefore have come to rely on a wide variety of economic activities. For example, Saudi Arabia relies heavily on the extraction of petroleum, while the central US relies heavily on agriculture.

Labor

Labor refers to the size of a country's workforce. Certainly, a large workforce has the potential to lead to a high GDP (gross domestic product).

Capital

Realistically, though, it is capital that economists usually focus on. Having a large labor force is not as important as having a well-educated labor force. It is human capital that leads to innovation and the development of physical capital.

The United States is fortunate to have abundant resources (land) and capital and, therefore, has first-world status. Many countries in Sub-Saharan Africa actually have vast deposits of mineral resources, but still have third-world status. While it is true that unequal distribution of resources can explain differences between nations, culture also plays a large role. Historically, political unrest has interfered with economic activity. Today, there are countries that discourage the education of women. When half of a country's potential labor force is not allowed to develop its human capital, the economy suffers.

Resource Distribution

	Mali	Poland	Saudi Arabia	United States
Natural Resources	gold, phosphates, kaolin, salt, limestone, uranium, gypsum, granite, hydropower	coal, sulfur, copper, natural gas, silver, lead, salt, amber, arable land	petroleum, natural gas, iron ore, gold, copper	coal, copper, lead, molybdenum, phosphates, rare earth elements, uranium, bauxite, gold, iron, mercury, nickel, potash, silver, tungsten, zinc, petroleum, natural gas, timber, arable land
Total Land	1,240,192 sq km	312,685 sq km	2,149,690 sq km	9,826,675 sq km
Arable Land	5.6%	36.2%	1.5%	16.8%
Population	16,455,903	38,346,279	27,345,986	318,892,103
Labor Force	5.538 million	18.26 million	11.22 million	156 million
Literacy Rate	38.7%	99.8%	94.7%	99%
Internet Users	249,800	22.452 million	9.774 million	245 million
Education Expenditures	4.8% of GDP	4.9% of GDP	5.1% of GDP	5.2% of GDP

Source: CIA World Factbook- https://www.cia.gov/library/publications/resources/the-world-factbook/

Because no country has the factors of production to produce all that it wants and needs, countries specialize and trade with each other. Due to climate conditions, the US can produce vast quantities of grains which it can trade to a country like Brazil, that can produce vast quantities of coffee. So, the U.S. has to trade for coffee because the U.S. cannot produce it themselves. What about things that can be produced within the country? Should a country always produce the products it is able to produce? It may surprise you to learn that countries are actually better off when specialization and trade occurs. The reason for that lies in the concept of comparative advantage.

Image sources:

http://halloftheblackdragon.com/reel/wp-content/uploads/2012/05/cute-coffee-shop-girl.jpg

http://financialpress.com/wp-content/plugins/RSSPoster_PRO/cache/dfc91_130215110119-low-pay-jobs-barista-340xa.jpg

Imagine that Maria and Charlie work at a coffee shop. In one hour, Maria can make 8 sandwiches or 24 lattes. In that same time, Charlie can make 5 sandwiches or 10 lattes. Maria has an absolute advantage over Charlie, because she can produce more of both goods than he can given the same amount of resources. Should Maria strive for self-sufficiency by making all of her own lattes and sandwiches? Or, should she specialize in making either lattes or sandwiches? What about Charlie? Should he make lattes, sandwiches, or both? To answer that question we need to determine Maria's and Charlie's comparative advantages, so that each can produce the menu item for which he or she has the lowest opportunity cost.

1. Maria's opportunity cost for producing 8 sandwiches is _____ lattes. Her opportunity cost for producing 1 sandwich is _____ lattes.

2. Charlie's opportunity cost for producing 5 sandwiches is _____ lattes. His opportunity cost for producing 1 sandwich is _____ lattes.

3. Maria's opportunity cost for producing 24 lattes is _____ sandwiches. Her opportunity cost for 1 latte is _____ sandwiches.

4. Charlie's opportunity cost for producing 10 lattes is _____ sandwiches. His opportunity cost for 1 latte is _____ sandwiches.

5. ____________ has the lower opportunity cost for producing sandwiches and should produce sandwiches.

6. ____________ has the lower opportunity cost for producing lattes and should produce lattes.

7. What affect will specialization have on the coffee shop?

Advantages of Specialization

Comparative advantage is what makes it possible to gain by trading. People and companies produce and sell the things they can make for a lower cost and purchase the things that other people or companies can make for a lower cost. The coffee shop with produce more and make more money when Maria makes lattes and Charlie makes sandwiches than when Maria and Charlie both make lattes and sandwiches. The same principle applies to countries.

Disadvantages of Specialization

Specializing and trading does foster interdependence between nations, meaning they may have to rely on each other for products or resources they need. Disputes or trade barriers can slow or stop trade, which would require nations to find new sources for products or to start producing items for themselves. It may be tempting to just skip trade all together to eliminate possible problems, but that would mean a lower standard of living in both countries due to higher opportunity costs and lower production.

How has trade changed over time?

During the colonial era the U.S. often traded for raw materials and agricultural products with a small amount of simple manufactured goods. Today the U.S. doesn't trade finished products as often as it trades for components.

Interactive 6.6 How A T-Shirt Is Made

Watch these 6 short videos to help understand more about the characteristics of trade today.

Characteristics of trade today

1. One country or company does not usually excel at make every part of complex manufactured products. Parts can come from multiple companies within multiple countries.

2. Companies are not tied to specific locations because of the local availability of resources (i.e. an iron mine)

3. The value of physical materials is often small compared to the value of the technology that goes into a product. For example the plastic parts and wiring that go into manufacturing computers is relatively small compared to the value of the ideas it takes to make computers carry out the advanced processes.

4. In earlier times, products, such as agricultural products, were used up after they were sold. Technologies can be reused multiple times in new products. Developing new technologies can give a company an advantage over its competitors at the time it is developed and into the future.

Impact of Trade on US Economy

What can governments do to encourage or discourage trade?

Trade Barriers- a restriction that prevents foreign products from entering a country

- tariffs- a tax on imported goods

- quotas- a limit on the amount of a good that can be imported

- regulations- licensing requirements and safety and environmental standards can act as informal trade barriers. If regulations are too strict, many companies may decide that it is just not worth the effort to try to meet them and sell their products in other countries with less restrictions.

- sanctions- A sanction is used by a nation or group of nations to punish another nation. For example, the United States placed an embargo, or total ban, on all products made in Cuba in response to the Cuban nationalization of American-owned oil refineries without compensation. More recently, the international community has levied sanctions on Russia because of its annexation of Crimea in Ukraine. Iran has also faced heavy sanctions in an attempt to force them to shut down their nuclear program.

trade wars

protectionism- sheltering industries from foreign competition by imposing trade barriers. People in favor of protectionism often argue it is necessary in the interests of protecting

infant industries, saving jobs, or national security.

free trade- the lowering or eliminating or trade barriers.

Trade Agreements

- WTO- World Trade Organization- 1995
- EU- European Union- 1993
- NAFTA- North American Free Trade Agreement- 1993
- DR-CAFTA (Central American Free Trade Agreement plus Dominican Republic- 2003, 2005 and FTAA (Free Trade Area of the Americas)- failed, 2005
- APEC- Asia-Pacific Economic Cooperation
- MERCOSUR- Southern Common Market
- CARICOM- Caribbean Community and Common Market
- ASEAN- Association of Southeast Asian Nations
- TPP- Trans-Pacific Partnership- failed, 2015- Article

Interactive 6.7 You Can't Stop The Global Trade Machine

Learn more about world trade agreements in this short article from the Washington Post.

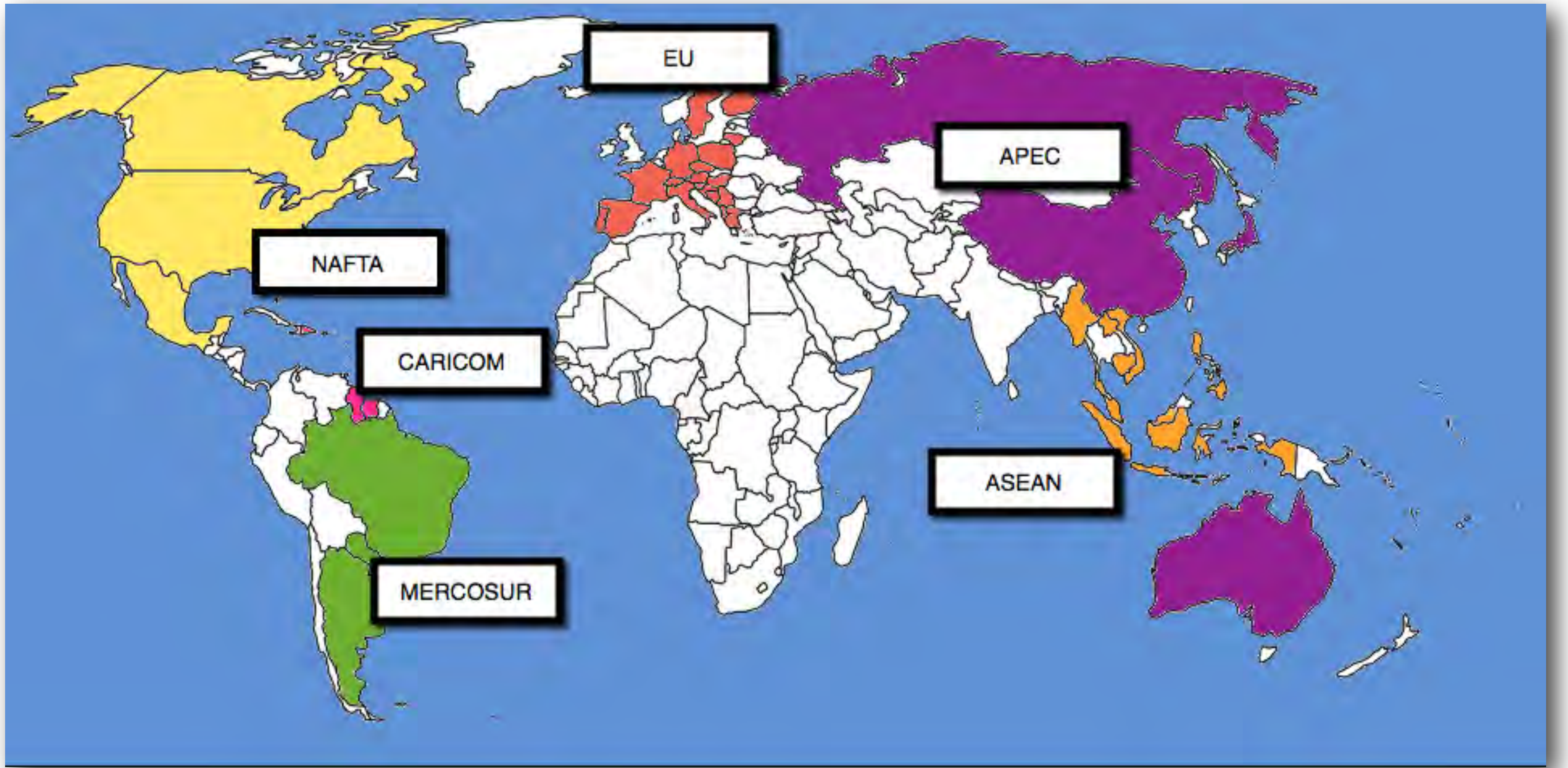
Discussion Questions

1. What argument does Fareed Zakaria make about NAFTA?

2. What argument does he make about the TPP?

3. What evidence does he offer to back up his claim?

4. Do you find his argument to be be convincing? Why or why not?



Map showing areas covered by trade agreements- APEC, ASEAN, CARICOM, EU, MERCOSUR, and NAFTA.

Discussion Questions

1. What do you notice about the locations covered by trade agreements?

2. What do the nations that belong to APEC have in common? What might lead them to form a trade agreement?

3. What areas of the world are not covered by trade agreements? Why do you think that might be?

Multinational Corporations

MNCs are headquartered in one nation but do business in multiple countries. Some multinational corporations have assets that exceed the GDP of some of the smaller countries in which they do business. They can often use that advantage to influence those countries to pass laws favorable to their businesses.

How do Multinational Corporations fit into international trade on a global scale?

MNCs are headquartered in one nation but do business in multiple countries. Some multinational corporations have assets that exceed the GDP of some of the smaller countries in which they do business. They can often use that advantage to influence those countries to pass laws favorable to their businesses.

Sometimes a MNC is a single company that only produces or manufactures one product. Most often, however, a MNC is a conglomerate--a group of businesses that come together under one name and one organization but produce or manufacture many different products. Ford Motor Company is a good example of a conglomerate because Ford companies around the globe make various products such as tools, radios, and of course, automobiles.

Proponents of MNCs believe that they are good forms of business because they help keep the price of consumer goods down in the U.S. and also help people in poorer countries by creating badly needed jobs in that country. Additionally, this sometimes leads to MNCs providing or building housing for workers, paying taxes to that country's government, and helping in building or improving parts of an infrastructure such as roads, airports, or docks for more efficient shipping of products out of that country.

Opponents of MNCs claim that some have more money than the countries where they build their factories. Many also add that MNCs use their wealth to influence government leaders and sometimes political policy as well. Additionally, opponents believe that MNCs are the leading cause of unemployment in the U.S. thus weakening the U.S. economy. And, because workers in developing countries are often paid much less money than workers in the U.S., the savings that are sometimes passed on to consumers through lower prices in the U.S. perpetuates the cycle of continuing to purchase cheap labor outside of U.S. borders.

What do you think? Are MNCs ultimately helping or hindering the U.S. economy?

How Do Exchange Rates Impact a Country's Balance of Trade?

Case Study: US trade with China

The US tends to export agricultural products, computers, large machinery, engines, and commercial aircrafts to China. China tends to export shoes, small appliances, and toys to the US. The education level of workers who make airplanes and computers is different from that of workers who make shoes and toys. So, the US has a comparative advantage over China in producing goods that require more high-skilled labor and technology, and China has a comparative advantage over the US in producing goods that utilize more low-skilled labor and less technology.

Obviously, trade on a global scale will continue to be critical to the survival of most nations. But what are some factors that impact trade at this level? One of those factors is the exchange rate--the price of a country's money in terms of another country's money.

Exchange rates can go up or down without warning thus contributing to changes in trade balances. For example, if the value of the U.S. dollar increases (this is known as appreciation), U.S. importers can benefit because consumers in the U.S. will purchase more imported goods. However, If the value of a nation's currency decreases (this is known as depreciation) that nation's products become cheaper to other nations. In the U.S.

for example, a weakened dollar means that foreign consumers will be able to better afford products made in the U.S. and usually results in increased exports. Simultaneously, in the U.S. products from other nations become more expensive so consumers purchase fewer imports.

U.S. Trade with Selected Countries, 2014 (in millions) [U.S. Census Bureau]

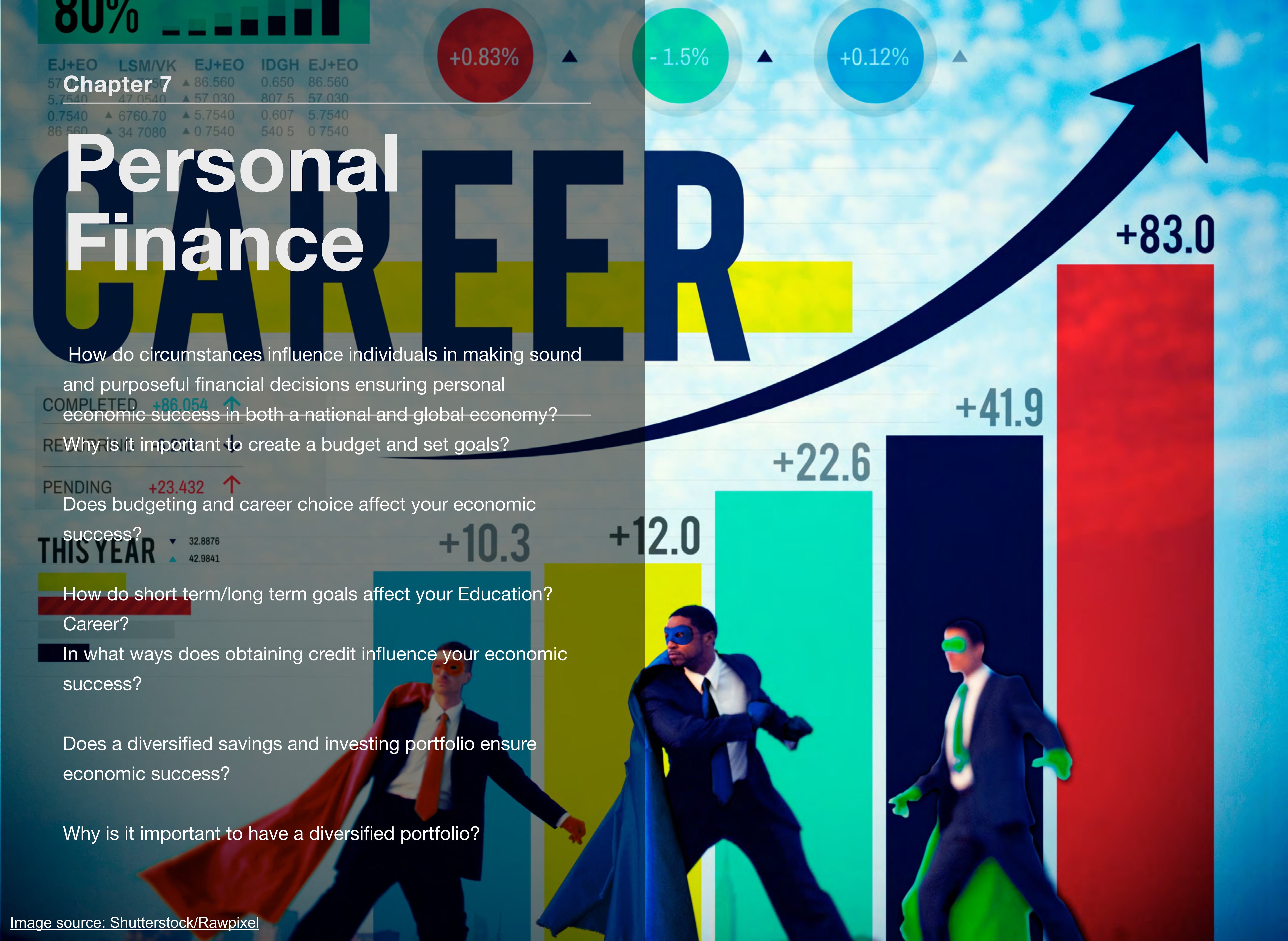
Country	Exports	Imports	Balance
Australia	26,667.7	10,669.9	15,997.8
Brazil	42,418	30,336.6	12,081.5
Canada	312,032	346,062.6	-34,030.6
China	124,024	466,656.5	-342,632.5
India	21,627.6	45,228.2	-23,600.6
Germany	49,442.6	123,181.0	-73,738.5
Japan	66,964.1	133,938.7	-66,974.6
Mexico	240,326.2	294,157.5	-53,831.3
Russia	10,767.7	23,691.9	-12,924.2
Vietnam	5724.9	30,583.6	-24,858.7
TOTAL	1,623,273.1	2,345,777.6	-722,504.5

Interactive 6.8 The Big Mac Index

Learn a little more about how all of these principles work in the real world by visiting this website and learning about the Big Mac Index.

Chapter 7

Personal Finance



How do circumstances influence individuals in making sound and purposeful financial decisions ensuring personal economic success in both a national and global economy?

Why is it important to create a budget and set goals?

Does budgeting and career choice affect your economic success?

How do short term/long term goals affect your Education? Career?

In what ways does obtaining credit influence your economic success?

Does a diversified savings and investing portfolio ensure economic success?

Why is it important to have a diversified portfolio?

Image source: Shutterstock/Rawpixel

Section 1

Career and Budget

QUESTIONS TO GUIDE INQUIRY

1. **How do circumstances influence individuals in making sound and purposeful financial decisions ensuring personal economic success in both a national and global economy?**
2. **Why is it important to create a budget and set goals?**
3. **Does budgeting and career choice affect your economic success?**
4. **How do short term/long term goals affect your Education? Career?**

As you have probably already learned, Economics is about choices.

When you were younger (and maybe recently as well) people probably asked you “What do you want to be when you grow up?” Five year old you may have said “firefighter” or “doctor” but as you approach your final years in high school the time is getting closer when you’re going to need to make a decision about how to spend your years post high school.

Interactive 7.1 10 College Majors To Watch

The widget on this page identifies 10 college majors that are currently in high demand. That means that there are many jobs in this field available and managers are having a hard time keeping them filled. As you look at each one, think about some of the following things:

- Would you enjoy it?

- Is it a good match for your skills and abilities?
- What further education is necessary to attain this job?

Choosing a career can be a daunting task, particularly as a high school student. What if what you want to be doing 30 years from now is not what you want to be doing right now? The best option in choosing a future career is to pick a path that feels right when the time comes and keeping in mind the realization that you can change your mind in the future. Just because you pick a career today does not necessarily mean you have to stick with it for the rest of your life. If Economics is about the choices we make, it's always important to remember that you can make that choice again in the future. Your needs and wants will ultimately morph over time.

Once you've made the all important decision about the career you want to pursue, it is necessary to consider what further education you need. Does it require attending college? A trade school? Will you be able to receive some on the job training? Most importantly: How will you pay for it?

One Option: Student Loans- FAFSA: What is the purpose of the FAFSA?

Every year millions of people decide to enter or return to school, and with the cost of college on the rise, one option people turn to is student loans. The first step in applying for this process is to get your "place in line" for the available funds by filling out a form known as the Free Application for Federal Student Aid (better known as the FAFSA.) This is a form that you can fill out every year if you're planning on attending school during the next academic year. It is used to determine whether or not you are eligible for financial aid. Taking out loans for college is not a decision to be made lightly - when it's over you could be paying this debt off for anywhere between ten and twenty five years.

Interactive 7.3 Types of Aid available

Learn more about the types of student aid available by viewing this video.

Interactive 7.2 FAFSA

Learn more about the FAFSA at the main FAFSA website.

What are the differences between grants vs. loans?

How do unsubsidized and subsidized loans compare?

What are the best options for paying for your education?

Interactive 7.4 The 4-1-1 On College Education

Read through the materials on this website for more information.

For many careers a college education is a necessity. With the cost of that education rising however, one needs to consider what the cost of that education can mean.

To some, a college education is an investment. While you'll pay for that investment in the form of loan repayment, there have been studies performed which have clearly shown that there is a widening gap in personal incomes between those who have a college degree and those who have only completed high school.

If you're not completely terrified about both having to think about what you want to spend the rest of your life doing, and how you're going to pay for it, it can be time to start thinking about and setting your ultimate goals.

SMART Goals

When thinking about your future, the best goals are SMART goals. SMART in this case is an acronym. It stands for "Specific, Measurable, Attainable, Realistic, and Timely. SMART goals can help you financially make decisions for your future.

S: Specific and significant - Your goals have a much greater chance of being achieved if they're specific. The goal of "making money" isn't specific. How are you going to do that? What is it that you will accomplish that will help you reach that end goal? To make this goal more specific, instead think about a statement like "Get trained after (or during if you have a career technical center available to you) high school to become a professional welder."

You will need to consider 5 W's to help make your goal specific: Who is involved, What do you want to accomplish? Where will you need to go? When will this need to be accomplished by? Why are you wanting to do it?

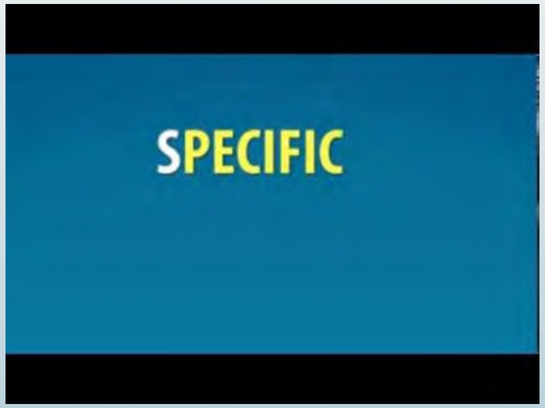
M: Measurable and motivational - You're also going to need to spend some time establishing the criteria that you'll use to measure your progress toward the achievement of your goal. This too requires asking some questions. The biggest is "How will I know when it is accomplished?"

A: Achievable and appropriate - When you identify your goals, you'll have to decide how you can make those goals come true. How will you achieve them? This requires planning.

R: Relevant and result-based - Is the goal you've come up with something you're willing to work for? Is it something you're able to work for? You are the only one who can ultimately decide how high your goal can end up being.

T: Time-bound and time oriented - A goal needs an end point. If the goal is to become a professional welder and you've figured

Interactive 7.5 More on SMART Goals



Learn a little more about SMART goals in this video.

out the steps you need to get there, establish your concrete goal of when you can realistically accomplish this. Saying “someday” isn’t timely. Saying “tomorrow” isn’t realistic. Set your time goal and do your best to stick to it.

A Budget - Your Financial Plan For Getting There

How well do you understand money? What about the cost of living? Take a moment in the box below to answer the following questions before moving on:

After you enter the work force:

What kind of car do you want to drive?

What kind of phone will you have?

Will you have a TV? Will it require Cable/Satellite?

Are you going to regularly eat out? Where?

What kind of place will you live in? (Apartment? House? Mansion?)

Every one of those questions has a financial cost. A car payment can be $199 a month, or much higher depending on the vehicle you chose. If you chose the latest iPhone model along with an expensive data plan, count on another $50-$150 a month. Cable TV is great, but the price to get that sports package you may want is much higher than the cost of the basic package. Not to mention the power bill, which goes up the longer that TV is on and every time you plug that phone in to recharge it.

A house or apartment costs money. It’s not just your mortgage or your rent payment. It’s the power bill. The heating bill. Unexpected repairs that creep up. And of course, to live, you have to consume food and water. If you live in the city limits that might add a water bill to your monthly totals.

Because all of these things have a financial cost, it’s important to make certain that you have enough money coming in every month to cover these expenses. The best way to do this is to create (and stick to) a budget.

Interactive 7.6 A Sample Family Budget

To get a sense of what expenses you might have each month, take a look at this sample family budget.

Why Budget? How do Americans budget?

A budget is a summary of two things: Your income and your expenses. It can be simple or elaborate (like the one on the previous page) The main purpose of a budget however is to help you make decisions. If you really want those tickets to the concert you've been wanting to go to, how long will it take you to save up for it?

A good budget serves the basic purpose of letting you track how much money is coming in and going out. It can also help you figure out if you have any wasteful expenditures and achieve your ultimate financial goals.

Why is budgeting so difficult?

Budgeting doesn't have to be a painful experience, but for some it is. One of the reasons why people may not stick to a budget goes back to the concept of choices. To pay for all of those things listed in the sample budget on the previous page, they may have to give up some things that they don't want to think about. The daily trip to Starbucks, new music downloads, a NetFlix subscription - all things that may give someone some enjoyment, but come at an opportunity cost.

Dialing down further on what a budget it, (and why it can be difficult for some to follow) a person should understand two different types of income. **Disposable income** is the amount of money you have left when your paycheck makes its way to you and all of the required taxes are taken out. Suppose you have a job that pays you $1500 every two weeks. When all the taxes required at the local, state, and federal levels are taken out, you may end up with $1000 actually making it into your bank account.

That money makes its way to you in the form of a paycheck, and once deposited in your bank account you then have to send some of that money out to pay your mortgage/rent, your car payment, your power bill...all of the necessities.   Once all of this has been taken care of you're left with **discretionary income**, the amount of money you have left over to invest, save, or spend after paying your bills. For some it is difficult to see that end number. That thing you're hoping for, whether it's a strong savings account, concert tickets, etc. can seem like it's a long ways off - or even impossible.

It is for these things however that a budget can be one of the most useful tools in a person's financial life. Imagine for a moment that you're saving up to buy a new television set. This is an economic want that many people experience. Maybe the one you're hoping to get costs around $1000, and after paying all of your bills each month you are left with $100 to your name. There are several ways you could move forward. If you saved that $100 every month (and luckily encountered no emergencies) you could have that television set in 10 months. That choice however means you have no money left over for your daily trip to your coffee shop.

If you've kept a detailed household budget going however, you might see that there are certain things you can cut out to help you get that television faster. Do you really need that NetFlix subscription? Can you shop at a different grocery store to save money? Do you have a savings account with more than the recommended "3 months of living expenses" (more on that in a moment) in it? If you budgeted $200 a month for groceries and are able to save $90 by shopping elsewhere or buying a cheaper brand, and eliminated your NetFlix subscription you could have just doubled your discretionary income and given yourself a path to obtaining your economic want of a new television faster.

Practice budgeting with these two interactive games:

Interactive 7.7 GenIRevolution

Interactive 7.8 Spent

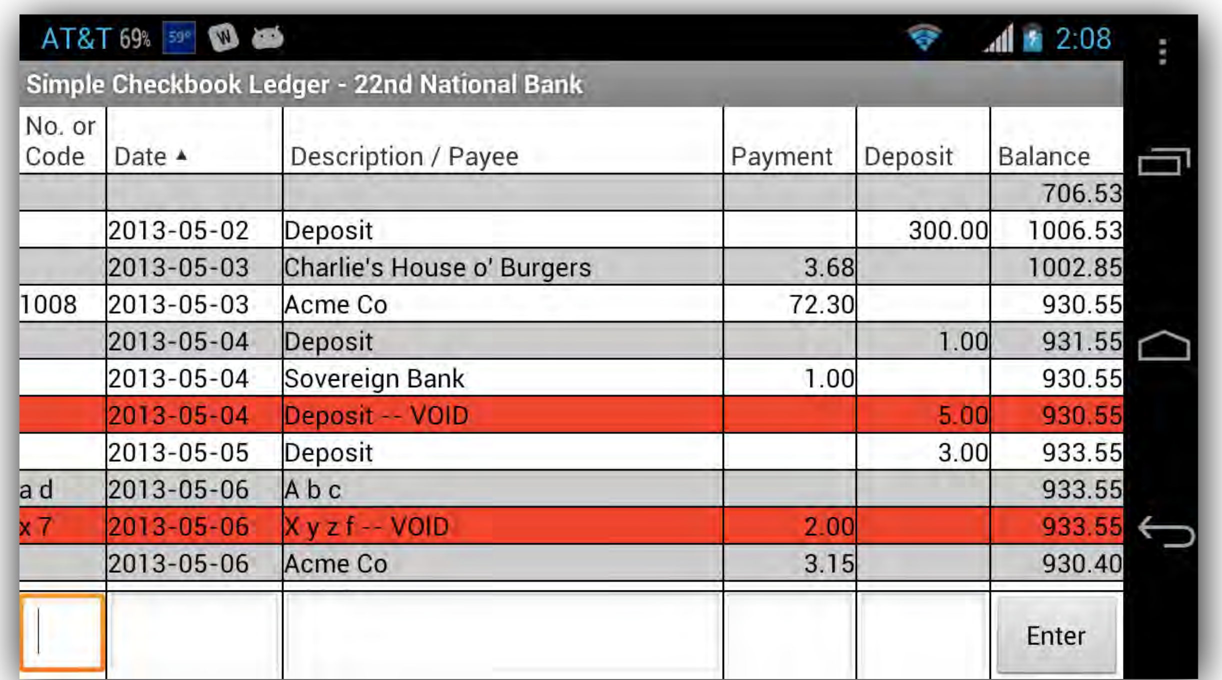
Your Savings

Your budget is only one step in the fast paced world of "being a responsible adult." The next thing that many economists suggest is that you should get a savings account going with at least three months worth of your monthly income in the event of an emergency. Others suggest more, anywhere between six and nine months worth is ideal. The reason behind this is simple and unavoidable: There will be situations that arise suddenly that you may not have control over. It could be that you find yourself temporarily unemployed, have a major home repair, or find yourself with some large out of pocket medical expenses that may not be covered by insurance. Whatever the case may be, saving at least three months worth of income will provide you with a financial cushion upon which you can fall when times get rough.

How Important is it to Keep up to Date With Your Finances?

The digital age has brought many improvements to people living today. Financial transactions which used to take several days to complete can now be done instantaneously. Even more useful is the ability to log in to your bank's website at any time of day or night to see exactly how much money you have there. For many this is a way to keep your check book balanced regularly, but for others this can lead to financial issues if an accurate register of transactions is not actually kept.

Balancing your checkbook can be an easy task if you keep up to date regularly, but it can be a nightmare if you don't. This helps you manage your money, keep tabs on your cash flow, and avoid overdraft and the fees that come with having insufficient funds.



Simple Checkbook Ledger - 22nd National Bank

No. or Code	Date ▲	Description / Payee	Payment	Deposit	Balance
					706.53
	2013-05-02	Deposit		300.00	1006.53
	2013-05-03	Charlie's House o' Burgers	3.68		1002.85
1008	2013-05-03	Acme Co	72.30		930.55
	2013-05-04	Deposit		1.00	931.55
	2013-05-04	Sovereign Bank	1.00		930.55
	2013-05-04	Deposit -- VOID		5.00	930.55
	2013-05-05	Deposit		3.00	933.55
a d	2013-05-06	A b c			933.55
x 7	2013-05-06	X y z f -- VOID	2.00		933.55
	2013-05-06	Acme Co	3.15		930.40

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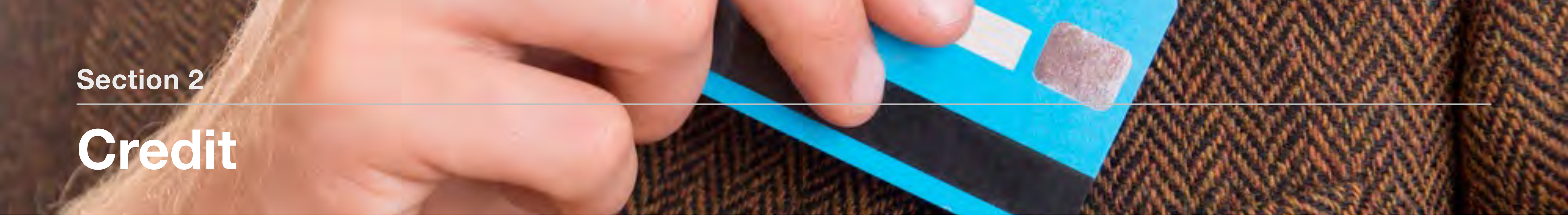
Why is it important to create a budget and set goals?

Does budgeting and career choice affect your economic success?

How does Short term/long term goals affect your Education? Career?

Interactive 7.9 Balancing Your Checkbook - Online Simulation



Section 2

Credit

QUESTIONS TO GUIDE INQUIRY

1. **In what ways does obtaining credit influence your economic success?**

Lets say you've saved up three months worth of salary and have a really well put together household budget. Things are looking up. You've got a job, you've got savings, and you're financially secure. Then - you have a really bad week. The transmission goes on your car and you suddenly have to come up with thousands of dollars for a replacement. At the same time there's a nasty thunderstorm where it pours so hard it floods your basement. Your savings is quickly depleted handling just one of these emergencies, and just when you thought things couldn't possibly get any worse, you break your leg and the medical expenses are only partially covered by your insurance.

That emergency fund can take forever to build up, and can be wiped out extremely fast if you're not careful. There may be cases in life, particularly when buying an automobile for the first time, when credit can help you. When used responsibly, credit can help you buy big things. **Credit** is borrowed money that you can use to purchase goods and services when you need them. Because it is borrowed money, you agree to pay the money back within an agreed upon time. Once you have credit, you have what's known as a credit score. Credit scores give lenders, people who lend money to others, a quick overview of whether or not you're a good candidate to lend money to.

Your credit score:

- Can help you get a loan faster. Many credit decisions can be made within minutes.
- Is a fair way to make a credit decision. Lenders make their decisions based on facts from your past and present. Things like race, gender, religion, etc. are not taken into account. Also, if you make some mistakes, a bad credit score doesn't haunt you forever.
- Can be improved by paying all your bills on time, and by not using too much of the credit that is available to you to spend.

Interactive 7.10 Feed The Pig - Credit

Learn more about Credit at this website.

When first trying to get credit, the best place to start is to see if your own bank has a credit card for someone with a limited credit company. If that doesn't work you can also try to get a credit card at a department store or a gas station. Sometimes these cards are easier to get, but they come at a cost - interest rates. An **interest rate** is the cost of carrying a credit card balance from month to month. It is the rate at which interest is paid by a borrower (that's you) for the use of money that you borrow from a lender. You'll learn more about Interest rates shortly.

In summary, credit is obtaining goods and services before payment based on trust that payment will be made in the future. Credit does mean however, that you will be going into debt.

Your credit rating is an analysis of your credit worthiness in obtain credit.

What factors go into creating your credit score?

How can you improve your credit score?

Debit vs. Credit cards

If you have a checking account it's more than likely that your bank will issue a Debit Card. A Debit Card looks just like a credit card and probably has a Visa, Mastercard, or Discover Card logo right on it. These cards allow you to pay for goods and services at businesses that accept major credit cards. Unlike credit cards however, a debit card is directly tied to your bank account. If you have money in your account you're able to access it easily with these cards.

If however you end up spending more money than you have in your account, several things could happen. The most likely is that the transaction will be rejected by the merchant and you'll have to find an alternative method of payment. Some banks allow for you to spend more money than you have but charge you a fee known as an "over draft fee." It's costly to carry a negative balance at your bank!

So while debit cards allow you to transfer money electronically just like a credit card, this is real money from your bank account

Debit Cards allows the holder to transfer money electronically when making a purchase for a good or service. This is money on hand that the holder has in a saving/checking account. Debit cards are connected to your bank account, whereas Credit cards are not.

Interest Rates

If you carry a credit card balance from month to month you'll be required to make a minimum monthly payment. While your minimum payment may be low (or high) it is important to pay off your credit as quickly as possible. Every month you carry a balance you're charged interest on the amount of money you owe, which is calculated by multiplying your balance by the interest rate.

Interest rates can be low. Some places like credit unions offer rates that can vary from anywhere between 6%-10%. Bigger banks, particularly national ones can match that but often go much higher. It's not uncommon to receive credit card offers in the mail that offer rates between 17-20%!

Pretend for a moment that you and a friend both have $2,000 in credit card debt. The credit cards require minimum payments of $60 a month (roughly 3% of your balance.) Because you don't have much money, you make the minimum monthly payments. Your friend adds an additional $10 each month.

That $60 you send only covers a portion of the debt. This is called the "principal." The rest of that $60 is interest. Creditors use a formula every month to calculate your minimum payment that takes place every month until you pay off your card.

In the end, just making minimum payments it will take you about 15 years to pay off the $2,000. In addition to that $2000 you borrowed, it'll also cost you over twice that in interest. Think about that - over time you'll pay $4,000 for that $2,000 your initially borrowed.

Interactive 7.11 Credit Card Payoff Calculator

Explore how long it could take you to pay off a credit card debt with this interactive calculator.

Your friend is in a better place. He or she will pay about $3,000 total over a seven year period because they pay a little more each month. That means that initial $2000 only cost them about $1200 extra.

Home Ownership and Credit

Another major decision you'll make as an adult will be the decision on whether or not you want to buy a home. Buying a home is considered a major purchase. Unlike renting, the home you buy becomes yours. Should you need to move for a career opportunity it can be difficult to resell your home depending on the housing market at the time. It also means your monthly budget will have a relatively large expenditure as part of your discretionary income.

The advantages to home ownership are many. For one, you'll build equity in your home by making improvements (and payments) over time. You can deduct your mortgage interest on your taxes, and you can build a solid credit score while making your mortgage payment each month.

A Mortgage is a line of credit for your home. Because homeownership is a long term commitment, your lender will want to make certain you're able to actually make your payments. Another way they do this is by requiring a down payment. A general rule of thumb is to put down twenty-percent of your home's purchase price. That means, if you buy a house for $100,000, you would pay the seller $20,000 and borrow the remaining $80,000 from the bank.

The 20% rule is generally a good idea, but it can be difficult to save that much money. Sometimes a potential home buyer is able to take advantage of a 0-3.5% down payment. These lower rates also come at a cost - generally you'll be required to get mortgage insurance which helps protect the lender if you are unable to make payments and go into default. This is an extra fee wrapped into the cost of your home which will increase the mortgage amount that you pay over time.

Interactive 7.12 15 vs 30 - Mortgage Calculator

Use this online calculator tool to determine some of the pros and cons of a 15 or 30 year mortgage.

Generally, the terms of a mortgage take place over either 15 years, or 30 years. Thinking about what you know about credit from this section, answer the following questions:

How does interest affect a mortgage?

Would you choose the 15 or 30 mortgage? Why?

Would there be a better option than getting a mortgage?

How does paying extra affect your mortgage interest rate?

How does paying extra affect your mortgage total payment?

How does paying extra affect your mortgage total cost?

Another thing to think about when buying a home is the concept of Escrow. **Escrow** is essentially what happens when money is deposited by one person with a neutral third party so that it can be delivered to another party upon completion of an event. The third party will then pay both your home insurance and property taxes. This can be handy because instead of paying a separate home owners insurance bill and a separate property tax bill, Escrow can take care of these expenses for you - but once again, as part of your normal monthly payment.

Interactive 7.13
Understanding the Escrow Process

Is Escrow worth it? Learn more about Escrow and the process at this website.

Now that you understand more about the home buying process, it's a good time to evaluate where you're heading in the next few years. It probably doesn't make sense for you to buy a house right out of high school. It is also quite possible you might decide never to take the home ownership plunge.

While renting you will still have a monthly expenditure in your budget, but that total can sometimes be less than what you would pay if you bought a home. The biggest downside is that you'll never own the place you live when you rent. Owning a home isn't for everyone and needs to be done at a time in a life when you're financially stable.

Compare and contrast the advantages and disadvantages of renting vs. buying a home. What are the advantages and disadvantages of each?

Automobile Ownership and Credit

A type of credit you may encounter before you ever think about buying a home does involve how you get to and from work and school on a daily basis. The decision to lease or purchase a new or used vehicle is another one of the big life decisions heading your way after graduation. The questions you'd ask yourself include:

Do I want a new car?

Can I make due with a used car?

How do I purchase a car?

What is leasing a vehicle? How do I do that?

These can be daunting questions and yes - the answer to each is an economic choice. There are hundreds of makes and models of cars available. Narrowing down the list can be difficult. If it's just you, you might be able to make due with a small passenger car that seats 4-5 people. When you're older and have a family, an SUV or minivan might make more sense for your lifestyle. If you live in a place with frequent snow storms, you might want to look instead at a vehicle with all wheel or four wheel drive.

Once you've determined the kind of vehicle you want, the next major issue you'll encounter is the price. Affordability of a vehicle can be tough to grapple with. You may not be able to afford a brand new vehicle outright without getting a loan. Whether buying new or used, you will need to make a down payment. You'll want to think about how long you want to be paying that car off. A 60 month loan may offer you a lower monthly rate, but do you want to be paying for your vehicle for 5 years? It is essential to figure out how much money you can dedicate each month to the purchase of a vehicle.

Once you've figured out what vehicle you want, and how much you're able to pay for it, you're confronted with yet another choice. Do you want a new car that is protected by a warranty for a long period of time, or do you purchase a used vehicle. It's nice knowing that the dealership and the car manufacturer will cover the costs of any defects in the car for the first few years of ownership, but a new car is far more expensive than one driven by a previous owner. The trade off of buying used instead of new however means that you may be breaking into that emergency fund you've been socking away (see what that's important?) to pay for repairs that creep up.

An alternative that allows you to get a newer vehicle at a smaller monthly payment is leasing. When you lease a vehicle you generally have to pay a smaller down payment than when you purchase it outright, and your monthly payment is much lower. This can be convenient, but leasing comes at another cost. If you put more than 10,000 miles on your car in a year you can be charged for the extra mileage.

Before purchasing or leasing your new or used vehicle there's another thing to consider that can't generally be solved in the dealership offices. Finding out the insurance rates for the car you're looking to purchase. Car insurance generally protects a driver from having to pay large out of pocket expenses if you're in an accident or something happens to the car, and in most states is a required part of automobile ownership. Depending on the vehicle's safety rating, your driving history, and the history of the vehicle (if it's used) your insurance rates may vary. Age is also a determination in insurance rates. Generally younger people who are not as experienced as a 30 year old have to pay more. You can generally pay your insurance rates monthly, quarterly, or twice a year. No matter which option you choose, it is an additional expense that doesn't go away even after you've finished paying off the vehicle.

Finally, it's time to figure out how to pay for the vehicle. If you're buying a used vehicle and not taking out a loan this can be a relatively easy process. If you decide to take out an auto-loan to help you pay for it however, everything you've learned about credit in this section comes back into play. Your credit history will significantly impact the approval of your loan, and how much you could end up paying each month.

What are the advantages and disadvantages of buying a car?

What are the advantages and disadvantages of leasing a car?

In which ways does obtaining credit influence your economic success?

Section 3

Saving and Investing

QUESTIONS TO GUIDE INQUIRY

1. **Does a diversified savings and investing portfolio ensure economic success?**
2. **Why is it important to have a diversified portfolio?**
3. **How does the government protect consumers, workers, and their savings?**

Who is This FICA Guy And Why Does He Take So Much?

You worked hard for two weeks. You picked up extra hours and are excited when payday comes around to pick up your first ever paycheck. In your head you've figured it out. You worked X number of hours, and your rate of pay is Y. Multiplying these two you're excited as you rip open the envelope and see...

...less than you were expecting. You blink in disbelief and immediately assume that someone in payroll made a mistake. Then you scan the paycheck stub a little more and see that they've taken taxes out. Medicare. Just who is this FICA guy, and why does he get so much?

MI Open Book Industries
1234 Textbook Drive
Anycity, MI 12345

CHECK NO. 152351

7/31/2015

ONE THOUSAND ONE HUNDRED SIXTY-ONE DOLLARS AND TWENTY-FIVE CENTS ******$1,161.25

PAY TO THE ORDER OF: John Smith
515 Textbook Drive
Anycity, MI 12345

Income	Hours	Rate	Amount	Year	Tax	Amount	Year
Holiday	8	18.5	148	740	Federal	171.73	3395.87
Reg Wages	64	18.5	1184	26492	FICA-E	91.76	1743.44
Vacation	0	18.5	0	296	Med-E	21.46	407.74
Sick	0	18.5	0	444	Michigan	26.8	509.2
Personal	8	18.5	148	148	403B	0	101.73
Totals	80		14800	28120	401K	0	133
					513C	0	11.32
						318.75	6302.3
					Total:	1161.25	

When you started that job, chances are you filled out a W-4 form and submitted it to your employer. What you select on that form impacts what you take home from your employer every time you're paid. On a first glance, one might want to make certain that they're paying as little as possible each pay period to make certain that you get as much money in your bank account as possible. This has a downside however. The money taken out of your paycheck is used to pay taxes to the local, state, and federal government. At the end of each year you're responsible for preparing a tax-return and filing it before the yearly deadline (usually April 15th.) The more you have taken out of your paycheck now can sometimes lead to something known as a "tax refund." A tax refund is money that you have overpaid to the government each year. If you pay more than you owe, the government will send you a check for the difference.

How Much Do You Pay In Taxes?

How much you make affects how much you pay in taxes. Generally individuals are placed into a tax bracket based upon how much money they make in a year. The United States currently uses a sliding scale that takes more money out depending on how much you make.

Why Do We Have Income Taxes, and Where Does The Money Go?

Just like you need a steady income to pay for your expenses, a government needs revenue to operate. Most of the money that you make at your job is taxable, which means it is subjected to the government's tax rate. The first federal income tax was imposed in the 1860s when the government needed money to fund the Civil War. Because this was not an expressly stated power in the United States Constitution, Congress eventually passed an amendment to the Constitution which granted it this power. The 16th Amendment took effect in 1913 and authorized taxes on income. It provided the framework for what we all pay today.

The federal tax dollars you pay go many different places. The United States Treasury has three main categories: mandatory spending, discretionary spending, and interest on debt. **Mandatory spending** is federal spending that is based on the cost of existing laws. **Discretionary spending** is federal spending that can vary from year to year. Congress appropriates money to places like the Military (which accounts for almost half of the discretionary spending budget) transportation, veterans benefits, education spending, and more. The final group is **Interest on debt**, which is the amount of money the government pays on it's debt. Just as you learned in the previous section about paying interest on money you borrow - even our government isn't immune to this.

Interactive 7.14 Where Does The Money Go?

Learn more about where the revenue the Federal Government takes in through taxes goes at this website.

What Does the FICA Tax Cover?

If you look at a paycheck stub like the one at the front of this section however, you'll notice that you don't just pay Federal taxes. Underneath the Federal line is one labeled FICA. FICA stands for the Federal Insurance Contributions Act. FICA is a payroll tax that employees pay to fund both Social Security and Medicare.

Social Security was established during the Great Depression. Prior to this massive economic downturn, the United States had never mandated any retirement savings. If elderly people had not saved money during their working lives, they did not have an income in their later years. The government also did not have money to pay for people who became injured on the job, or were never able to work due to disabilities that they were born with. President Roosevelt's New Deal in the 1930s introduced the program of Social Security to help solve these problems. Medicare was added in the 1960s to help the elderly with the rising costs of health care after retirement.

Interactive 7.15 Where does your Tax Money Go?

See how the Federal Government spends most of its money at this website.

Why Do We Have State Income Taxes?

The Federal Government isn't the only one with their hands on your paycheck. States impose additional income taxes on your earnings, and they do this for the same reason - they need money to effectively operate. States all collect this money differently. Some have a sliding scale like the Federal Government. Others use a flat tax rate, which means you pay a certain percentage on all all income levels. There are also states that don't impose an income tax at all. If you do pay state tax however, you are able to deduct them from the taxes you pay to the Federal government every year. States use the money that they collect from all sources to pay for things like road repair, and education.

Saving and Investing for Retirement

This chapter has spent considerable time describing what a budget is, why you should have one, the benefits and pitfalls of all different kinds of credit, and now where part of your paycheck goes before you even see it. It's more important than ever however to start thinking about how you will be financially secure when you retire as early as possible. No matter how much you love your job, some day you're going to want to retire.

It might be hard to believe but it is never too early to start planning for your retirement. The longer you wait to start saving, the less time you are giving to your money to work for you in the present. The good news is that if you are already currently working, you are already putting some money away for retirement in the form of the FICA tax, or Social Security tax that is withheld by the government. However, since most experts agree that Social Security payments alone will not fund a comfortable retirement for anyone, the sooner you can start saving for retirement, the better.

You might be asking yourself, “How do I know how much money will I need for retirement?” There are many variables that affect this answer, but most financial advisers agree that you will need approximately 70% of your pre-retirement income in order to continue to live a comfortable lifestyle once you do decide to retire.

Thinking about these things might prompt another important question: “Where does the money come from for my retirement?” As discussed in the paragraphs above, the first source is Social Security. But, before you assume that Social Security will still be available by the time you retire, you may want to check out a recent article that discusses the availability of Social Security as well as projected bankruptcy timelines at the website to the left.

Interactive 7.16 Social Security is Running Out

Learn more at this website.

Interactive 7.17 Face the Facts - Social Security

Since many pensions are disappearing in the private industry, after Social Security, the rest of your retirement income depends on you. So, the first step in trying to figure out how much to save is to try and determine how much you will need. One tool that many people find helpful is that of a retirement calculator. An example of a simple retirement calculator can be found in the video to the right.

Interactive 7.18 Retirement Calculator Movie

The bottom line is this: start saving early, and save often.To get a better idea as to the best ways to save, you may want to determine your risk management profile. One tool to assist with this task is the “iprofile” which can be found at:

Interactive 7.19 iProfile

Additionally, some of the questions that you may want to ask yourself are:

Throughout my life should my investment risk level change?

Where should my risk level be during the early part of my career?

Throughout history, when has a high risk level proven to be detrimental to an investment portfolio?

Diversification is spreading investments around instead of investing in one single thing. Diversifying can iron out the ups and downs of investing.

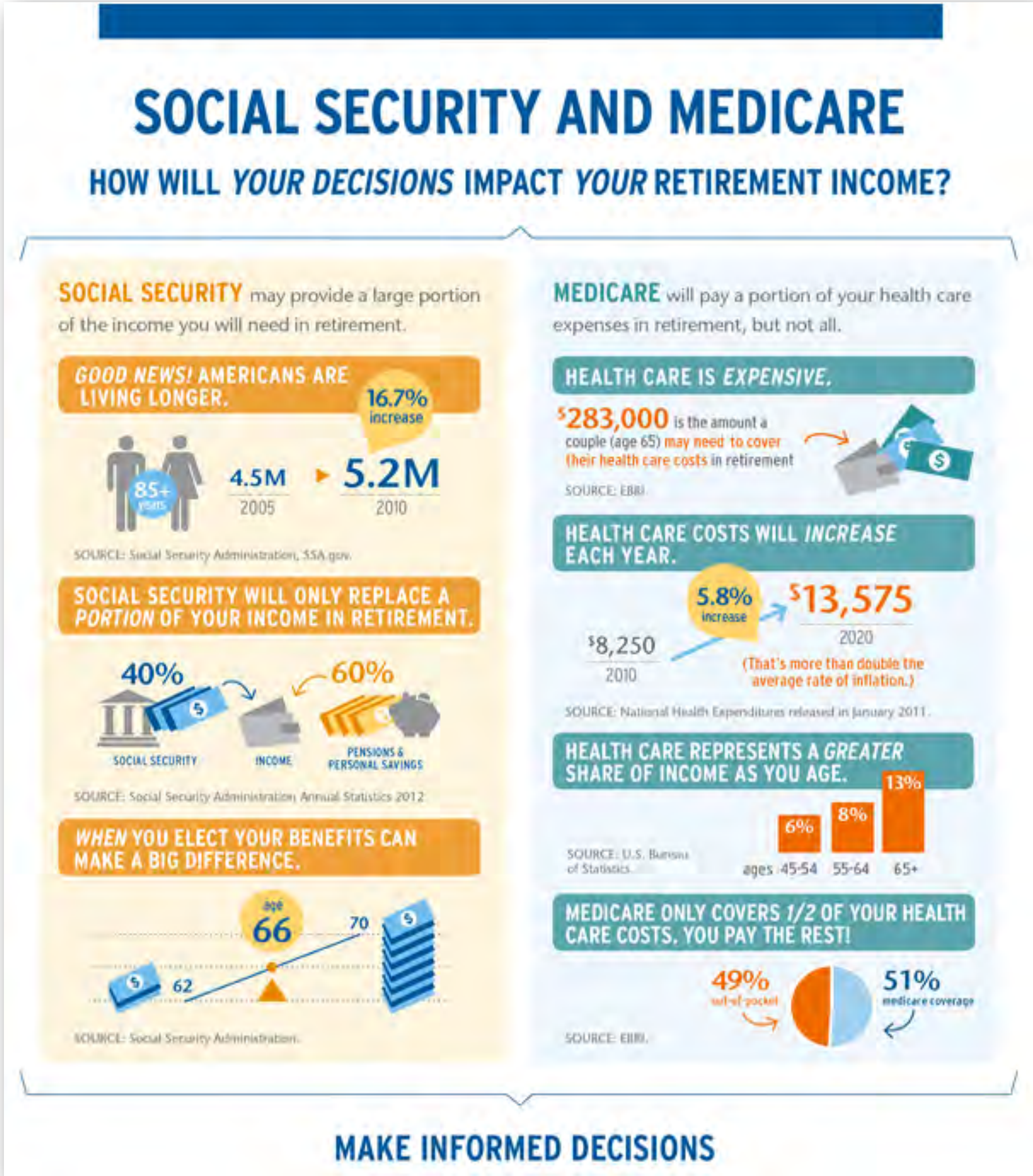


Image source: http://blog.principal.com/wp-content/uploads/2013/04/soc-sec-and-medicare-mm6094.gif

I Can’t statements- why can’t I save in my life?

Ages 21-30

I can’t save now. I’m just getting my start in life, I don’t make a lot yet, and I’m entitled to a little fun while I’m young. There is plenty of time. Wait until I start making a little more. Then I‘ll save.

Ages 30-45

I can’t save now. I’ve got a growing family on my hands. Children and a house cost a lot of money. It takes all I have to keep them going. As soon as they are a little older, it’ll cost less. Then I’ll save.

Ages 45-55

I can’t save now, I’ve got two children in college. It’s all I can do to pay their expenses. In fact, I had to borrow for their tuition last fall. This is the most expensive period in a person’s life. I can’t save a penny.

Ages 55-65

I can't save now. I know I should. But things aren't breaking like they did. It's not easy for a person my age to step out and get a better job. Ill have to ride along where I am. Maybe something will break.

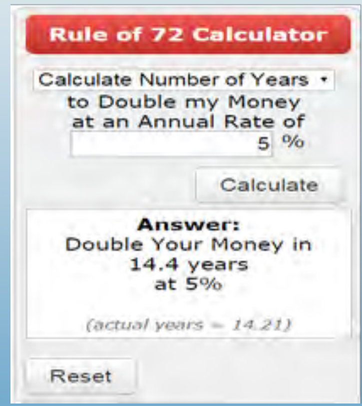
Age 65

I can't save now. Were living with my son and his wife. My check from Social Security doesn't go far. I wish I had started saving 20 years ago, but it’s too late now. You can't save when there’s no income.

from The Northwestern Mutual Life Insurance Company - Milwaukee

So, now that you’ve convinced yourself that saving and investing is important, what are some of the best ways to do just that? How can your money accumulate? How does interest (the rate of return) affect your money? Try using the tool below to help you start answering those questions.

Interactive 7.20 The Rule of 72 Calculator



What is the incentive on Saving early?

Interactive 7.21 Finance Activity - Invest Early

How much is enough for retirement?

Economists say around 15% of income is a good target to save and invest for retirement.

Note: Financial Advisors advise “Paying yourself first!”; pay yourself 15 percent immediately for your retirement and saving whenever you receive money from a paycheck or other sources..

What does investing for retirement at 15% provide for? Economics say with saving around 15% of your income, it would allow you to live with 60-80 percent of the income during retirement.

Stocks

Interactive 7.22 Wall street Survivor

How good are you at the Stock Market?

Are stocks worth the risk for their return?

Will you become a shareholder?

What is a ticker symbol?

How and why do economist describe the stock market as either

a bear market or bull market?

What are Corporate Bonds?

With the risk, is the return worth the agreement of the debt to be paid back?

Stock vs. Bonds? Which do you choose… or a combination?

Interactive 7.23 Stocks vs Bonds - Which Do You Choose?

Interactive 7.24 How The Stock Market Works

Other Ways To Save:

Mutual Fund: Investment fund diversified with such assets like stock and bonds managed by professionals/brokers.

Life insurance: Is life insurance needed?

Term insurance that pays out a sum of money after the death of the insured person.

Cash-value (whole) life insurance has death benefit; and has a cash value. This accumulated amount can serve as an account for your use.

Pension plans: Social security is a form of pension; Pensions are retirement plans. Pension plans in the private and public sectors are being eliminated more and more.

IRA: tax deferred; own tax on your earnings/withdrawal; tax paid at withdrawal

What is tax Deferred?

403b: Employees non -profit tax exempt organization; matching contribution option.

401k: Business sponsored retirement plans; business can contribute matches.

Would you want the business you are working for to match your contributions?

Interactive 7.25 401 K Calculator

Traditional IRA: Tax on lump sum upon withdrawal. This account is tax deferred; A traditional IRA is an individual retirement account. .

Roth IRA: Tax free growth, owe no tax at all on your earnings as they accumulate or when you withdraw; no required withdrawals; maximum contributions per year

Certificate of Deposit: Term for investment with time it take to matures; CD's have a date of maturity with generally a comparatively lower rate of return.

Interactive 7.26 Which is better - Roth or Traditional IRAs?

Financial Investors and advisors helpful hints:

What is the difference between a trust and will?

A trust is an estate planning tool created to facilitate the transfer of one's assets to their heirs in a private manner, outside of probate court. It can be thought of as "the family bank". Upon death, an executor (normally an attorney) and the trustee(s) (normally heirs) work together to execute the transfer of assets within the trust in accordance to the terms set forth by the deceased. Most commonly upon death, the instructions and assets of the trust become irrevocable.

A will is simply a letter of intent stating the wishes of how one would like their assets transferred upon death. It can be as simple as a handwritten letter, which is why the validity of wills can be easily challenged in court. Execution of a will is a very public process, anyone is able to see it if they wanted, including the assets owned by the decreased and who it is being passed to.

If a deceased person dies without having a will and/or trust established, they are said to have died intestate. This means that the courts will control the passing of assets based on state intestacy laws. Every state has its own set of laws stating who gets what and in what hierarchical order; spouse, children, parents, siblings, etc.

Student Practice Applications:

Interactive 7.27 Financial Football

Interactive 7.28 Financial Soccer

Reflection:

1) Does a diversified saving and investing portfolio ensure economic success?

2) Why is it important to have a diversified portfolio?

Protecting all of your hard work: Identity Theft and Consumer Fraud Protection

As with any other discipline in social studies, economics is no different from the standpoint that along with personal economic rights comes consumer responsibility. While you as an individual worker and consumer have the right to safety, the right to be informed, the right to choose freely, and the right to be heard, there are also responsibilities that accompany these rights. Using products safely is a primary responsibility of consumerism, as is choosing goods and services carefully, seeking information and using it to make informed decisions, and speaking up to let likes and dislikes be known.

Of course, from the government's side of things, multiple agencies exist to assist consumers and workers and to help them protect their purchases and investments. The Consumer Products Safety Commission (www.cpsc.gov) serves consumers in multiple ways such as posting important recall information on products, providing safety education about products, communicating regulations, laws, and standards about products in consumer-friendly language, and publishing research and statistics on commonly used and popular products.

When thinking about the protection of savings, one might ask, "Are there government agencies that can help me protect my savings and investments?" The answer is, yes. Both credit union institutions, through the National Credit Union Administration (NCUA) and banks, through the Federal Deposit Insurance Corporation (FDIC) protect savings accounts up to $100,000.

But what about identity theft? Sometimes referred to as, "True-name Fraud" identity theft occurs when someone wrongfully acquires and use a consumer's personal identification, credit, or account information without their permission. This illegally acquired information such as a social security number, pin number or password is then used to steal a person's identity. Often, once a person's identity is stolen, thieves will drain savings accounts and/or rack up huge credit card debts purchasing big ticket items such as automobiles, boats, trips, and jewelry, just to name a few.

Experts offer tips to avoid identity theft. Here are the most recommended:

*Monitor your credit report.

*Don't give out personal information to unknown people or companies.

*Protect your credit and debit cards.

*Protect your mailbox.

*Protect your wallet.

*Use passwords and PINs that cannot be easily guessed.

*Use anti-virus software on your computer.

*Notify your bank when you change your address or phone number.