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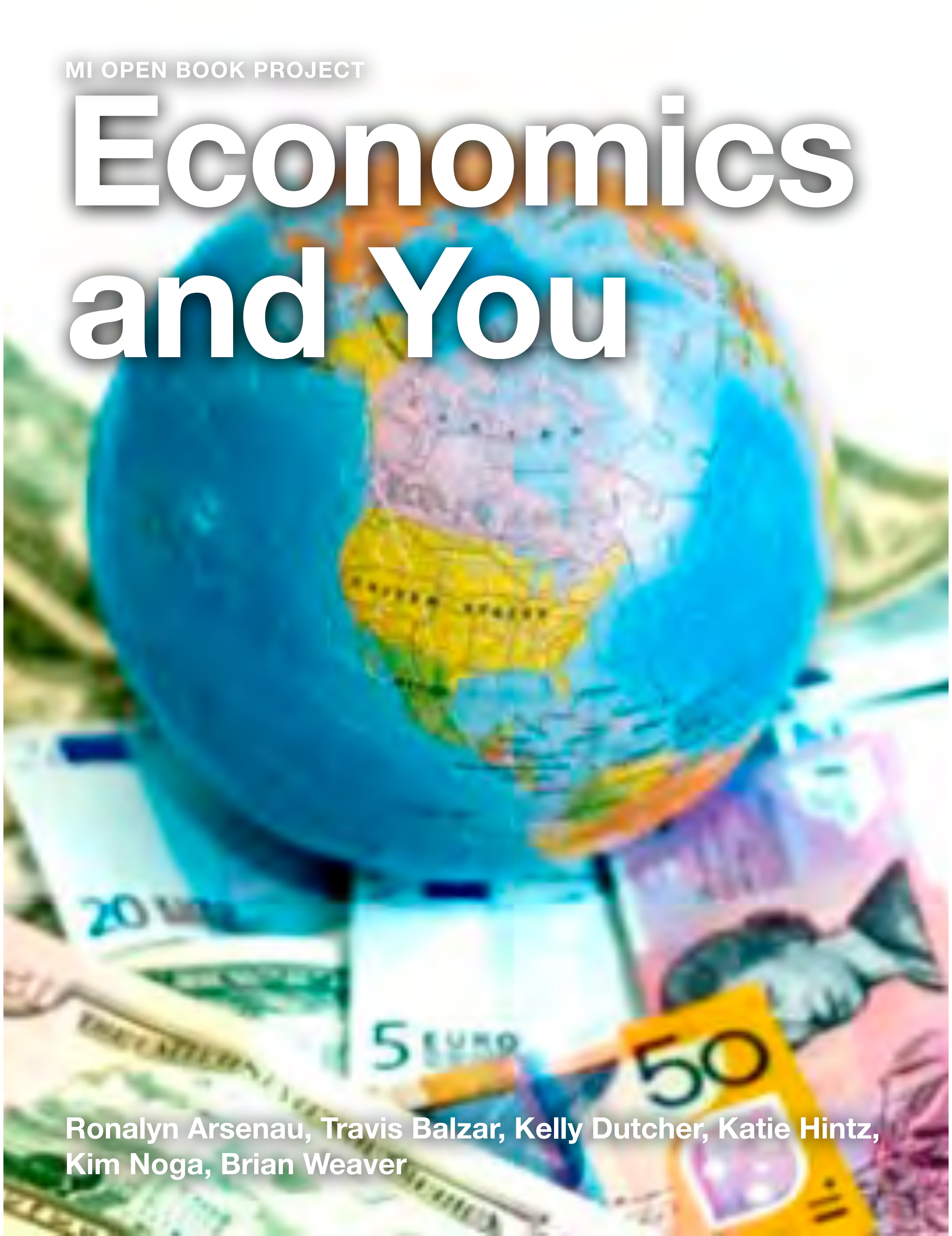
Economics and You



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

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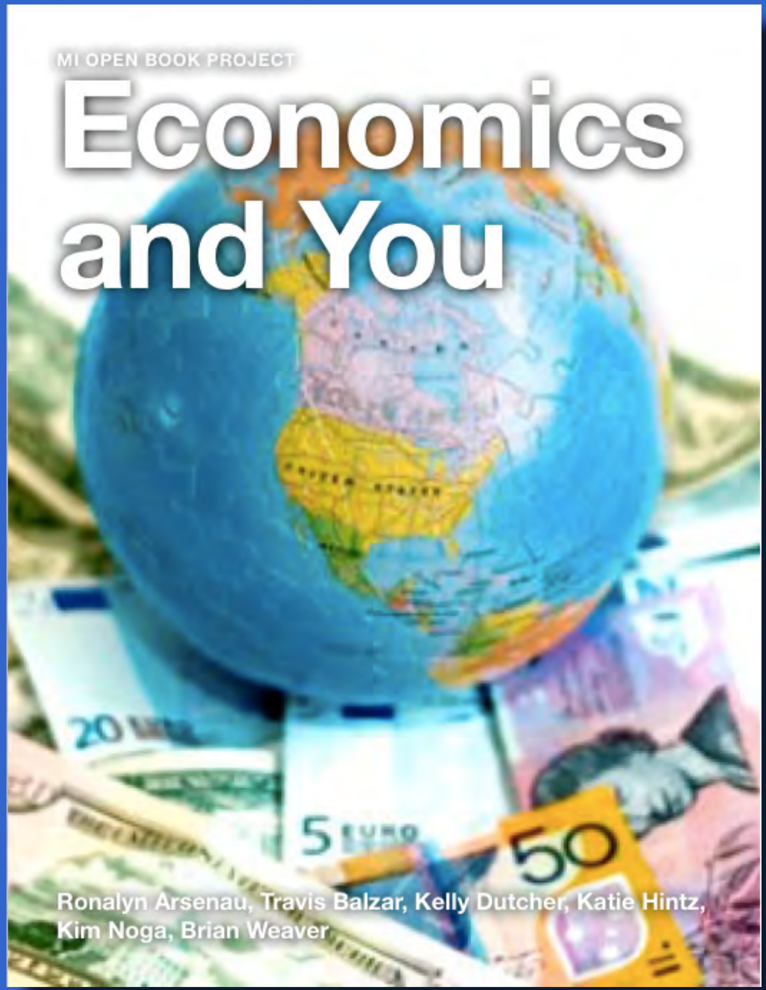

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Information on the latest version and updates are available on the project homepage: http://textbooks.wmisd.org/dashboard.html

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About the Authors - Economics and You

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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

Harbor Springs Public Schools

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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?

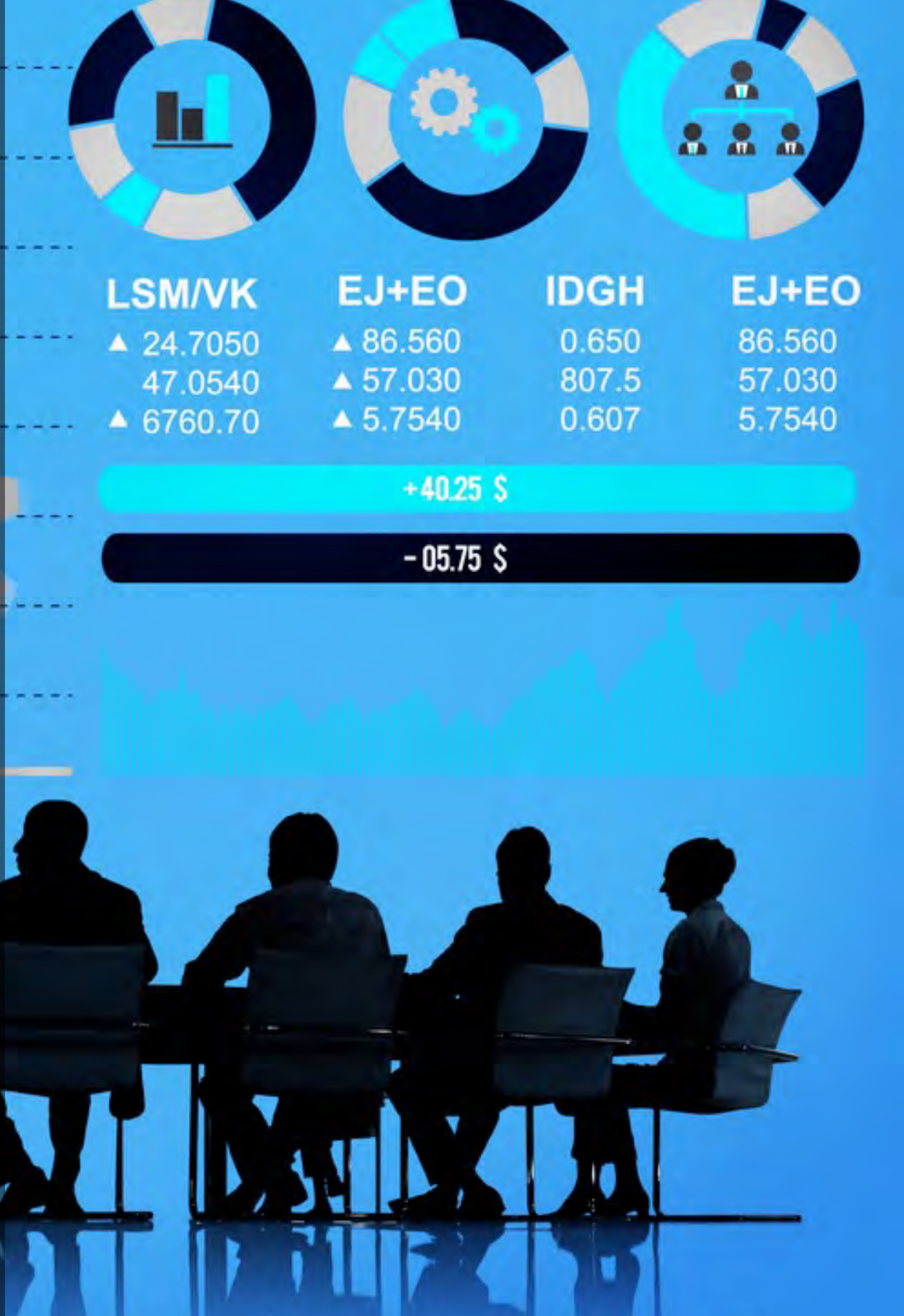
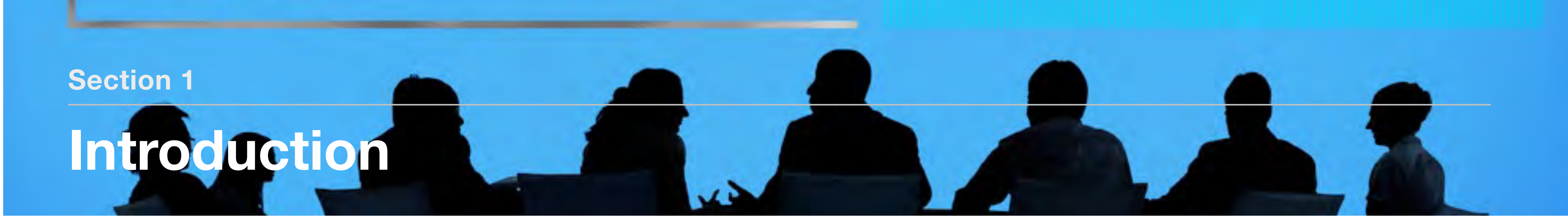


Image source: Shutterstock/Rawpixel



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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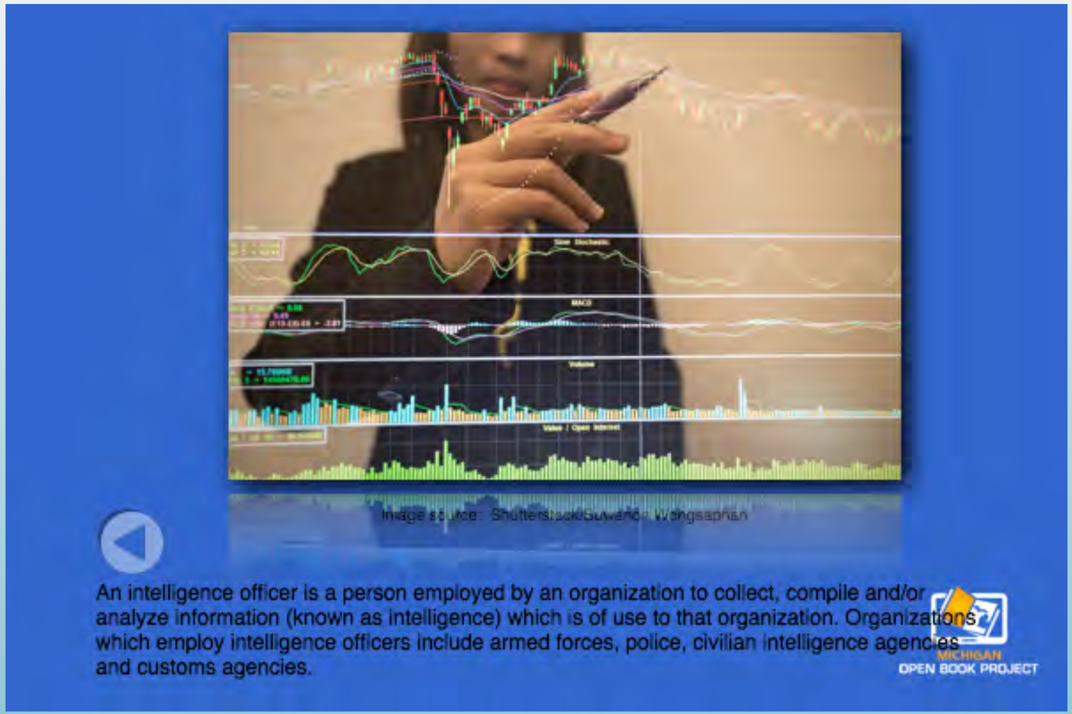
6. **In what situations should a cost benefit analysis be used?**

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

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 1.2 Factors of Production Practice

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

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.

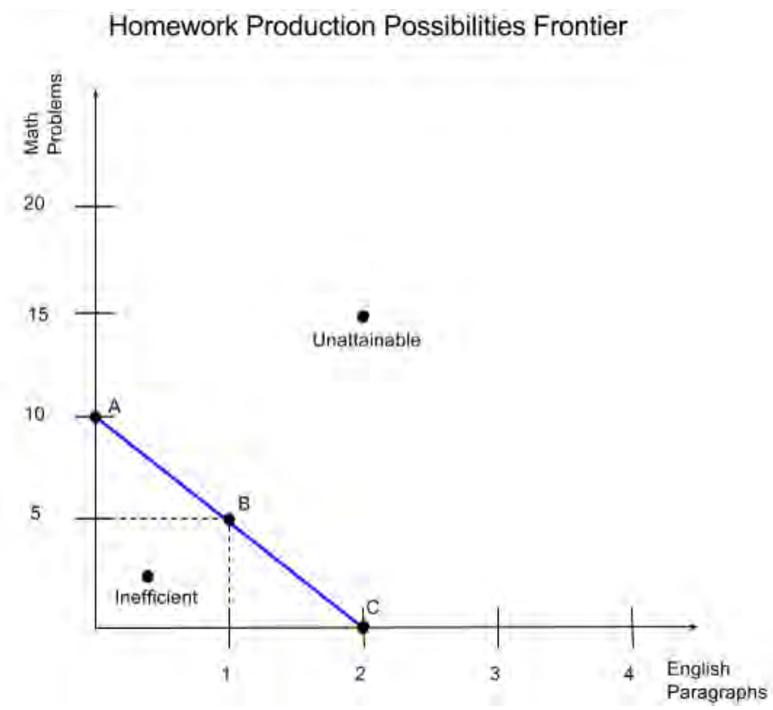
You have been assigned 20 problems in Math class and 4 paragraphs to write for English class. If you choose to do half of your math it will take an entire hour, and so you will have not written any paragraphs for English. If you decide to write two of the paragraphs for English, then you will not be 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)

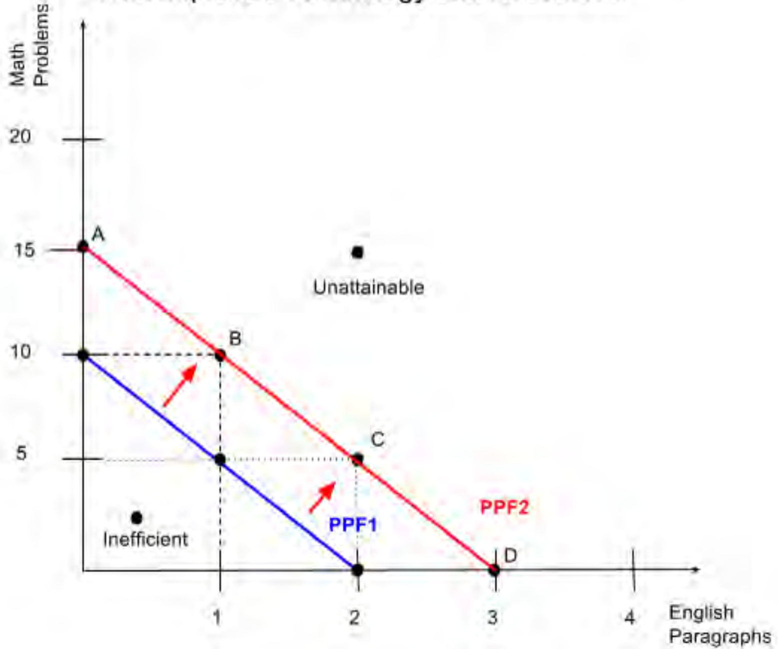
4. Your technology remains the same.

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.

Households

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

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).

Businesses/Firms

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

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.

Resource Market

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

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.

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

Product Market

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 money. 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:

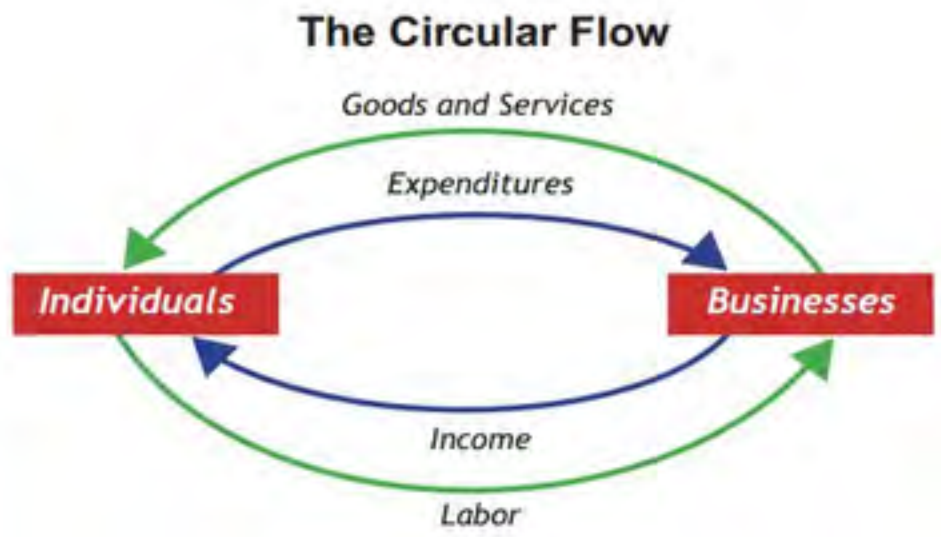


Image source: http://en.wikipedia.org/wiki/Circular_flow_of_income#/media/File:Circular_flow_of_income_and_expenditure.jpg

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:

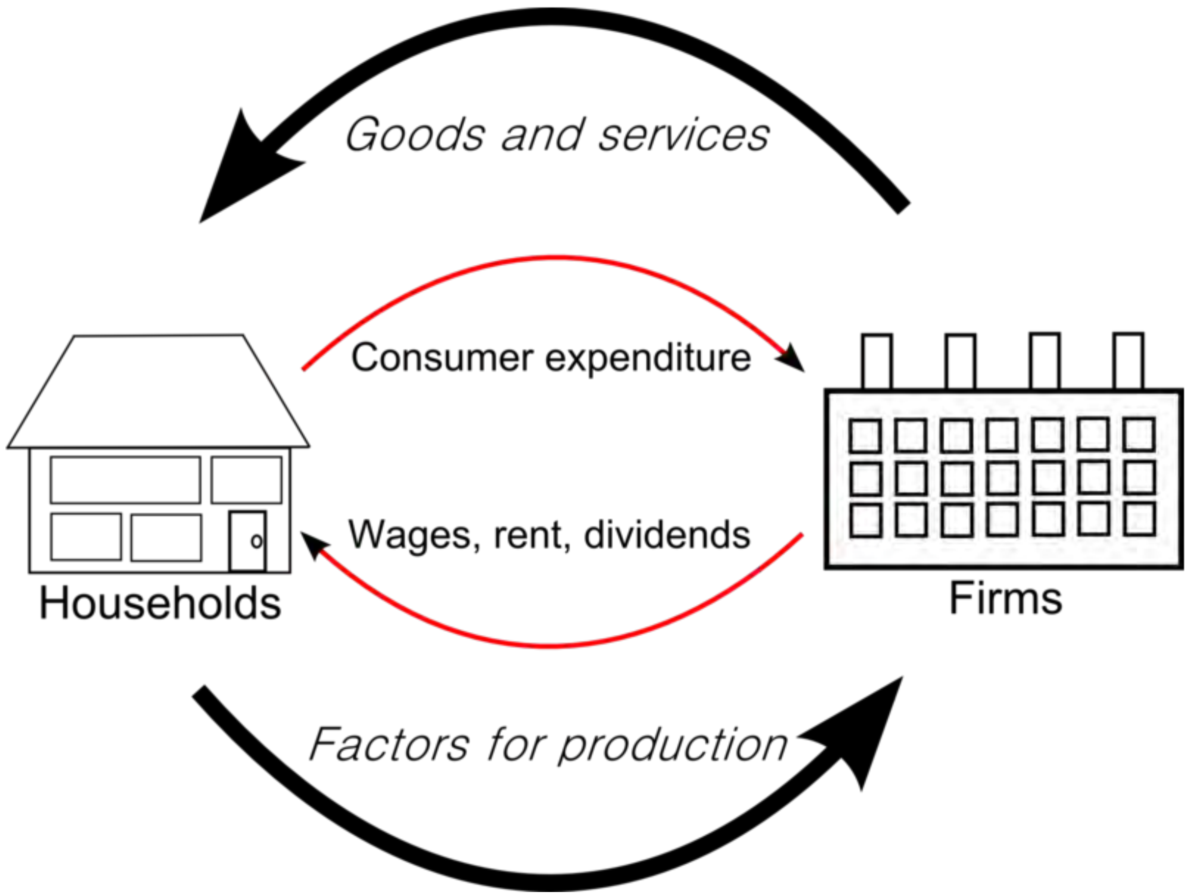
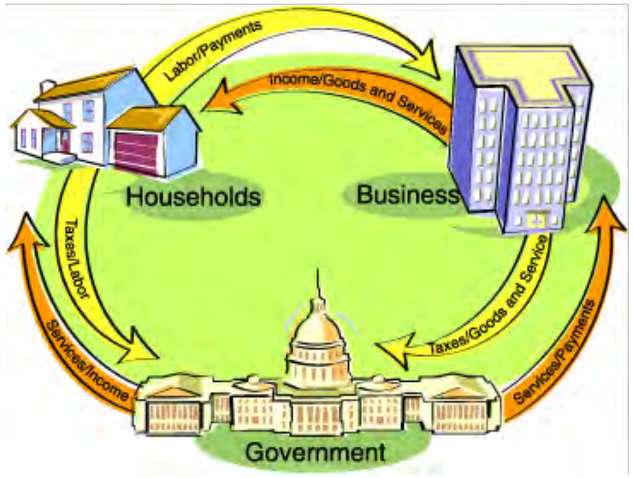


Image source: http://commons.wikimedia.org/wiki/File:Circular_flow_of_goods_income.png

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.

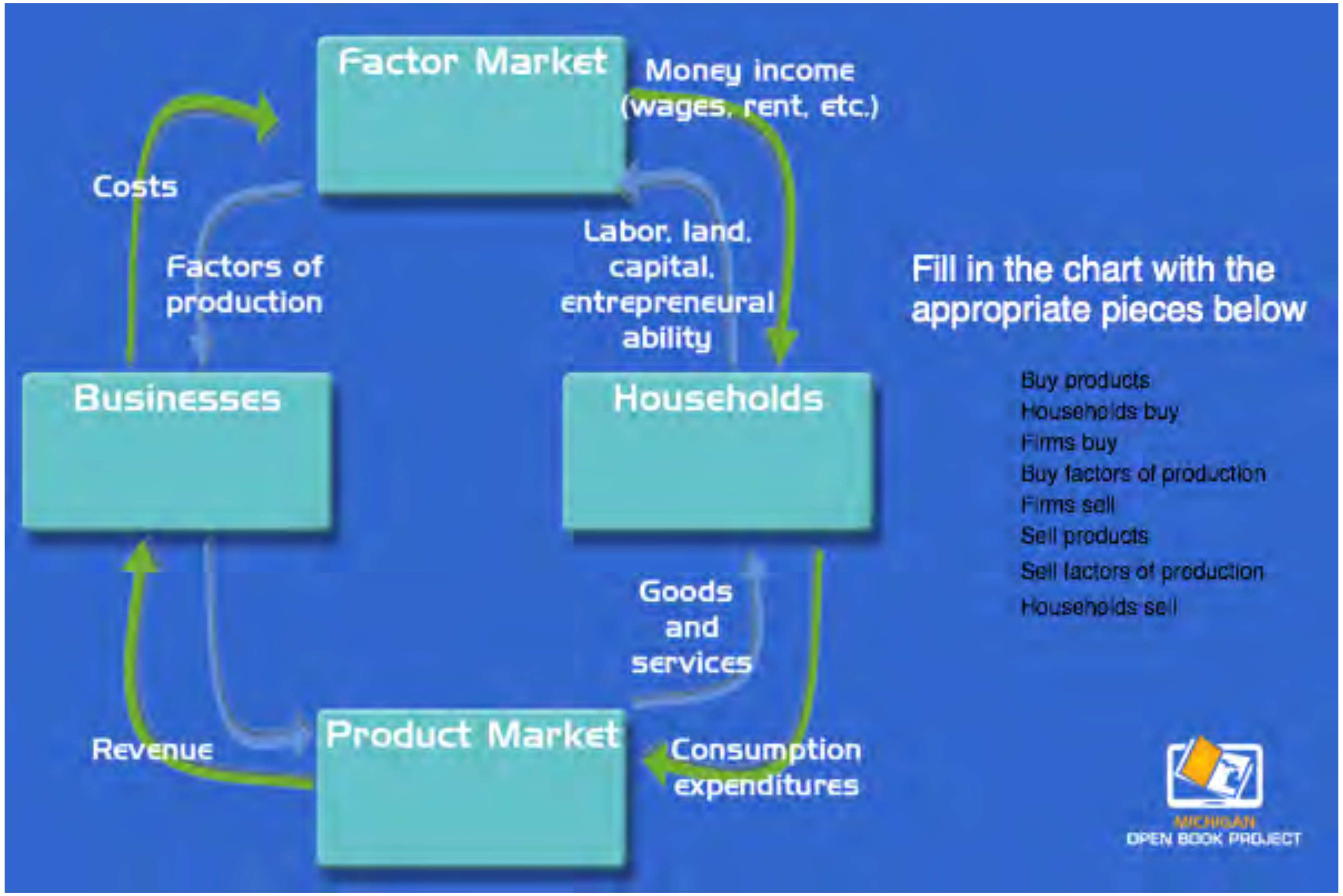
Example 3:



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?**
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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.

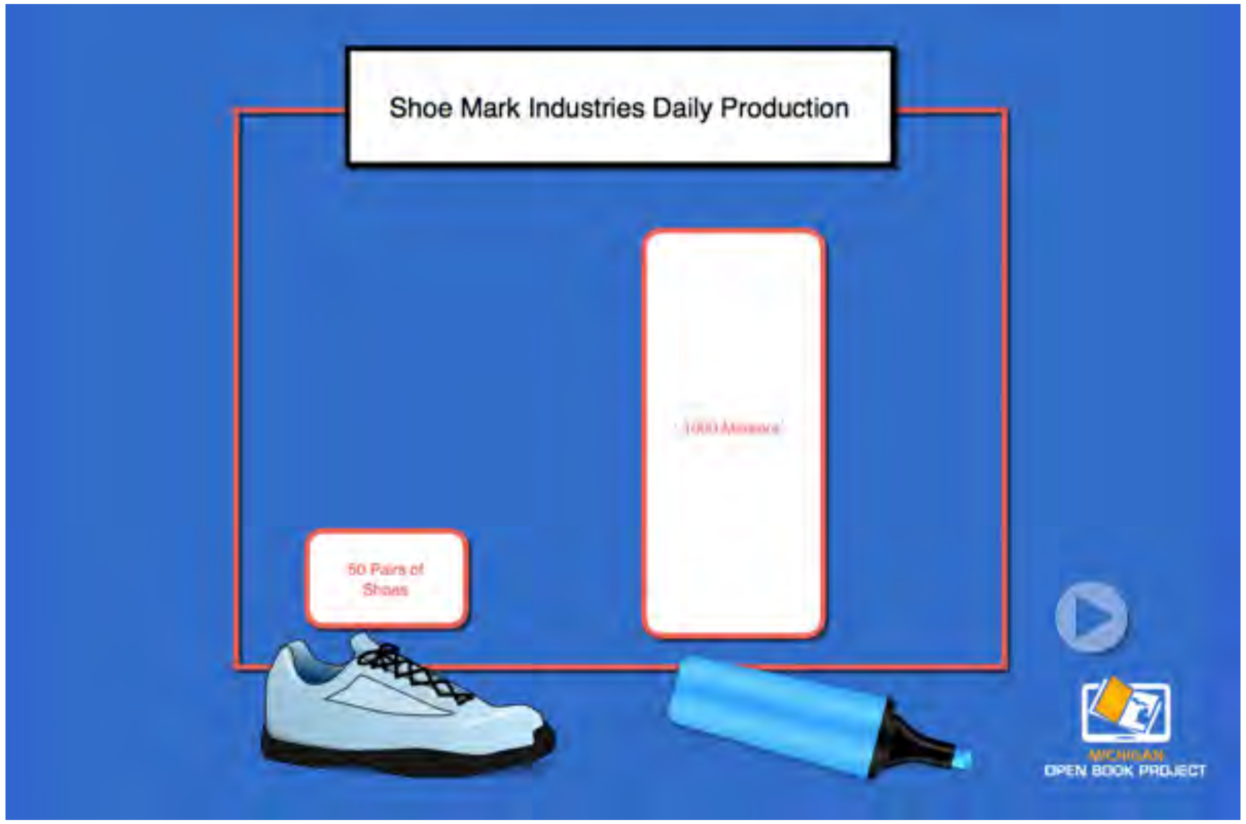
Scarcity is a concept at the center of economics. As Economist Thomas Sowell puts it, “The first lesson of economics is scarcity: There is never enough of anything to satisfy all those who want it...” The key idea of scarcity is that a person will never be able to have everything that he or she wants. 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.

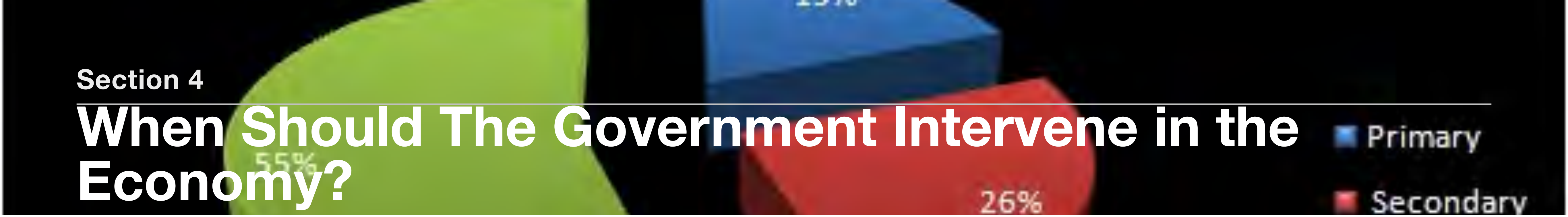
Collectively voters come together and make decisions based on their individual cost benefit analysis. Some analyses are more detailed than others, but eventually each voter makes a decision based on whether the cost and tax burden justifies the benefit received in having a new community pool.

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:

Interactive 1.7 Cost Benefit Analysis

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.



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**.

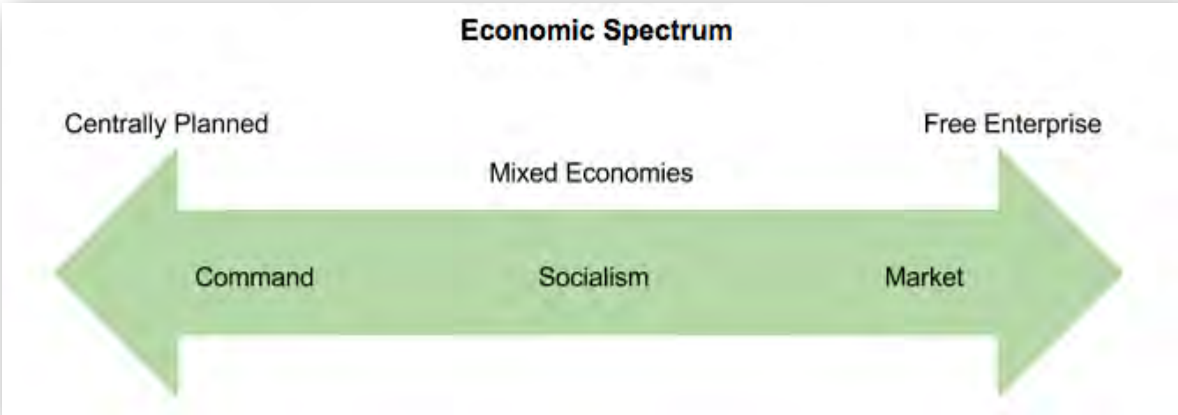
The prefix "micro" means "small," which appropriately describes microeconomics as it is focused on closely examining a specific business, industry, individual, or market. "Macro" means "overall" or "large-scale," which is exactly what the study of macroeconomics is trying to get at: how do all of the 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).