Module 1: Basic Economics

Introduction

In this unit, you will begin your understanding of economics. We'll start with the definition of economics and the fundamental economic problem: scarcity. Next, we will differentiate microeconomics and macroeconomics. Then, we'll ask the two economic questions and provide some assumptions. We will dive into the problem of scarcity while applying the two basic questions. Scarcity leads us to the discussion of choice and opportunity cost. Finally, we discuss marginal analysis, incentives, models and theories, and positive versus normative economics. Here we go!

Learning Objectives

When you are done with this lesson, you should be able to:

1. Define economics and scarcity and explain the economic problem.
2. Differentiate between microeconomics and macroeconomics.
3. Distinguish between the two basic economic questions.
4. Analyze how rationality and self-interest relate to social interest.
5. Indicate how scarcity leads to choices and measuring opportunity cost.
6. Define, apply, and explain how incentives affect marginal analysis.
7. Differentiate between normative and positive economics.
8. Examine how models illustrate economic theory, which data evaluates.

Q1.1

What word or words do you think of when you hear the term *economics*?

Your Answer

Scarcity

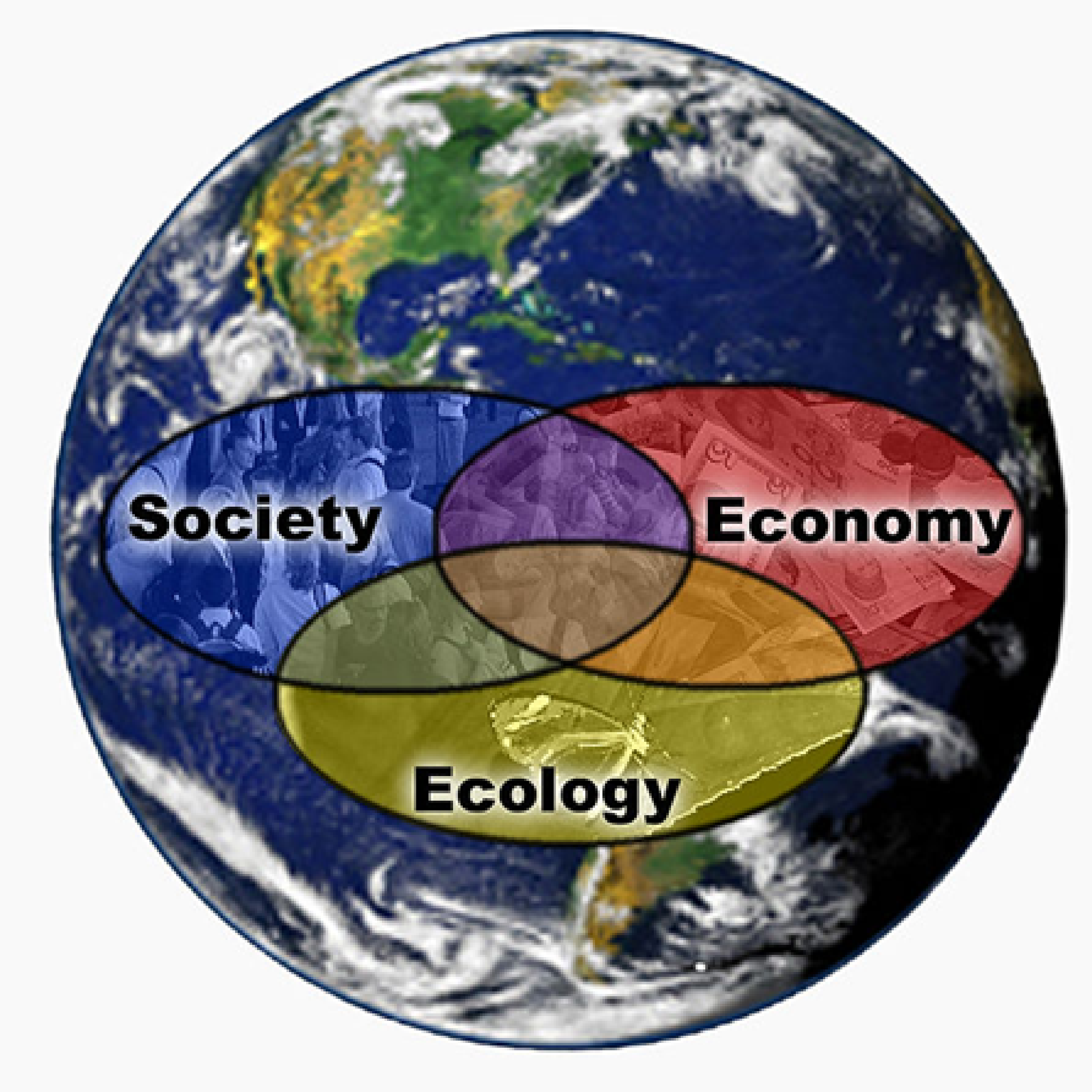


Image 1: Choices

1.1 Define economics and scarcity and explain the economic problem.

The Economic Way of Thinking: Using Economic Analysis

At its core, **economics** is about framing problems we deal with every day. We can even go so far as to talk about personal relationships. Why are you in school? Why did you choose to take this class? How big will the house be when you decide to buy a home? When you think about your friends, why did you choose them? What is it that you like about them?

Defining Economics and Scarcity

The fundamental economic issue that every person in every city and economy deals with is scarcity. **Scarcity** defines this economic problem. How we allocate our scarce resources is a problem requiring us to make choices.

Economists study the problem of scarcity and the choices people, businesses, and governments make. We can't explain anything like electricity, but we examine why people make their choices.

Image 2: Options in a grocery store

1.2 Differentiate between microeconomics and macroeconomics.

Q 1.2

Mark as: None

Your choice to go to college is best described as

Select an answer and submit. For keyboard navigation, use the up/down arrow keys to select an answer.

a Microeconomics

b Macroeconomics

Correct Answer:

✓ a - Microeconomics

Show submitted answer Hide Correct Answer Check My Answer

Q 1.3

Mark as: None

Decisions of the federal government on funding for the University system are best described as

Select an answer and submit. For keyboard navigation, use the up/down arrow keys to select an answer.

a	Microeconomics
b	Macroeconomics

Correct Answer:

✓ b - Macroeconomics

Show submitted answer Hide Correct Answer Check My Answer

Microeconomics versus Macroeconomics

Let us differentiate between the two branches of economics known as **microeconomics** and **macroeconomics**. As you probably already know, micro means small. Microeconomics focuses on *small* decisions by individuals (or households) and by firms such as:

Pollution

Crime

Healthcare

Education

Image 3: A classroom

The prefix macro means large. **Macroeconomics** focuses on a country's decisions and issues such as:

- Inflation
- Taxes
- Unemployment

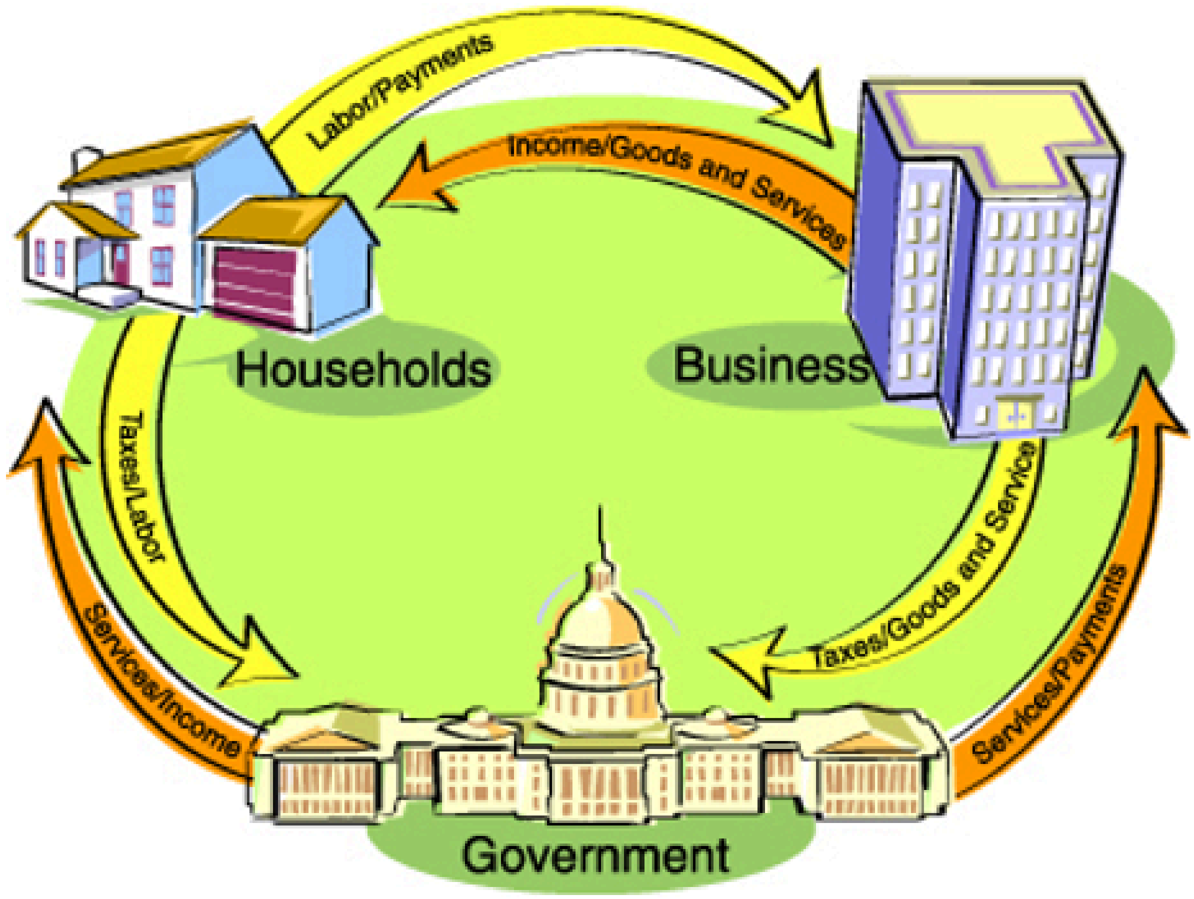


Image 4: A Circular Flow diagram of the economy

1.3 Distinguish between the two basic economic questions.

Two Big Economic Questions

In studying the problem of scarcity, two fundamental questions can also summarize economics:

1) How do we determine ***what***, ***how***, and ***for whom*** will produce goods and servicesd?

2) Do choices made in the pursuit of ***self-interest*** ever align with ***social interest***?

Two Big Economic Questions

1. **What, How, and For Whom?**

Goods ⓘ and **services** ⓘ are the objects that people value and produce to satisfy human wants.

What?

What we choose to make is determined by our (unlimited) wants and (limited) resources (scarcity).

If we (firms) produce more of one item, then less production of something else occurs during the same period within a given set of resources. For example, corn is an edible food source, and corn is also fuel.

As we devote more of the limited resource of corn to fuel production, there is less of that same resource to produce food. So, it is the choice to use a finite resource, corn, to produce two wants: fuel and food.

How?

Once we determine what we will produce, we must decide how to produce it. Goods and services are made using productive resources (inputs, ingredients), which economists call **factors of production**

Four categories:

Land: includes land and anything from the land, including natural resources.

Labor: represents workers.

Physical Capital: manufactured goods used in the production of other goods and services and **Human Capital**: intangible resources, including knowledge, skills, and personality traits possessed by individuals.

Entrepreneurship: represents the business creators. Risk-takers such as Bill Gates, Elon Musk, and Mark Zuckerberg make fundamental business policy decisions. Would you have invested?

Image 5: A young Bill Gates

For Whom?

Now that we have discussed what we will produce based on scarcity and how we will produce based on the four factors of production, the next question is who will receive the good? Who gets the goods and services depends on the **incomes** people earn. Four categories:

Land earns **rent**.

Labor earns **wages**.

Capital earns **interest**.

Entrepreneurship earns **profit**.

Q 1.4

Mark as: None

Which of the following can be a factor of production? **Select all that apply:**

Multiple answers: Multiple answers are accepted for this question

Select one or more answers and submit. For keyboard navigation... Show more

a	A pizza oven
b	A waiter at a restaurant
c	Gold
d	Money
e	A CEO

Correct Answers:

- **a** - A pizza oven
- **b** - A waiter at a restaurant
- **c** - Gold
- **e** - A CEO

Show submitted answer   Hide Correct Answer   Check My Answer

Two Big Economic Questions: #2

How does the Self-Interest differ from Social Interest?

Now, let us examine the second question. Here we compare self-interest versus social interest. Recall the question what are we going to produce? Are we making the *correct* goods and services in the *right* quantities? The answer might be different if we approach it from the self-interest perspective versus the societal interest perspective. What factors will we choose in the production of how we make the good? Are these factors selected in the *best way*? Again, the answer may be different depending upon the viewpoint. Finally, who gets the good may be different if we approach it from a self-interest versus social interest standpoint. Are the items going to those who receive the *most significant benefit* from them?

1.4 Analyze how rationality and self-interest relate to social interest.

Behaving Rationally and Self-Interested

Think about a recent visit to your favorite restaurant. Why did they feed you? Is it because they care about you? Probably not. It is perhaps because the restaurant wants to profit from selling you a meal. It is not necessarily because they care about you as a customer. In other words,

> *"It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from the regard to their own interest."*
> *—Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations, 1776*

Adam Smith's famous book was the first systematic attempt to address this big question, and economists have been trying to answer it ever since.

Rationality Assumption

One of the critical assumptions in many economic theories is people behave **rationally**. The rationality assumption means you make choices to make yourself better off based on what makes you happy.

Economists base many of their models on the assumption people behave rationally. For example, more is better: Money, time, stuff.

How many songs do you have on your smartphone?

Self-Interest

Economists assume human nature is consistent: people behave rationally and in their self-interest. With that in mind, let us focus on the idea of self-interest: what drives you? What is your purpose in life? What is your goal? Is it humanitarian? Do you want to solve the world's problems? Is it about wealth or power? Is it about friendships or families? Again, once we answer some of these more significant questions, we begin to understand our self-interests and self-motivations. We also start to understand the choices we make.

Q 1.5

Which of the following would you describe as your goal in life? Rank them in order of importance from 1(most) to 8(least)

1. Humanitarian
2. Prestige
3. Wealth
4. Power
5. Friendship/Family
6. Environment
7. Achievement
8. Self-Improvement

Now let us compare self-interest to social interest. Economists assume people make choices in their own self-interest and in a rational manner. Since individuals are part of society, their choices may affect other community members (society).

Your Answer

Image 6: Graduating college

Social interest refers to choices that are best for society as a whole. So, is it possible the choices we make in our **self-interest** are also in **society's interest**? Ultimately, it depends. For example, when you pursue a college degree, you behave in your self-interest. However, you will likely positively affect social interest by the time you graduate. As a resource (mainly labor), you will become a more productive member of society with your college degree. Furthermore, you will likely earn more money with a college degree since you become a more productive labor unit. So, by behaving in your self-interest in pursuing a college degree, you also promote social interest.

Q 1.6

Why are you here in college?

Your Answer

Because i wanted to get a job and make money

If everyone behaves in their self-interest, how can societal interest be reconciled with all these diverse self-interested individuals? One way to resolve this problem is using governments or other **institutions** They may be able to create incentives to change the choices of self-interested individuals to align for the greater social good.

1.5 Indicate how scarcity leads to choices and measure opportunity cost.

Choices and Tradeoffs

Now, let us see how economists approach these economic questions. At the essential core of economics is the problem of scarcity, and scarcity implies choice. Choice also means **tradeoffs**.

Wants and Needs

Recall the problem of scarcity: there aren't enough resources to satisfy all of our wants. The difference between wants **wants** and **needs** is worth noting. Needs are the necessities of life: food, shelter, and water. Wants, on the other hand, are needs in excess and are unlimited. For example, do you need to live in a 5,000-square-foot mansion? No. You want to live in this mansion. All you need is a basic shelter, like a studio apartment.

What scarcity is NOT:

It is *not* a shortage.

It is *not* the same thing as poverty.

A shortage, a temporary market problem, and poverty are two problems that are ultimately solvable. Scarcity, on the other hand, never truly gets solved. Why? Because as soon as we satisfy one of our wants, a new one takes its place.

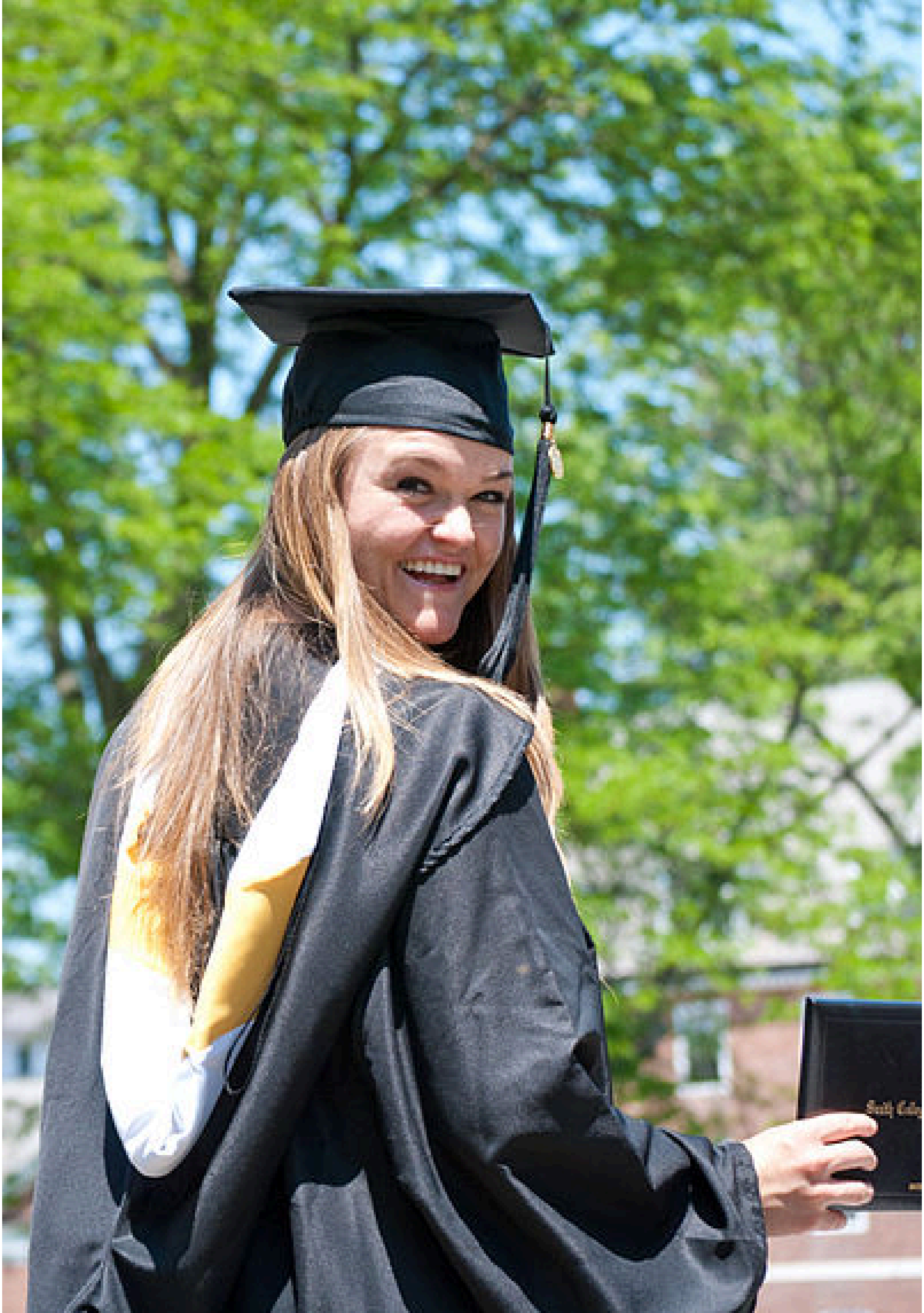
Choices Bring Change

Our choices can also bring change. What we choose now affects the quality of our economic lives today and tomorrow. In addition, our choices today impact our choices tomorrow.

Examples:

- Education
- Saving
- Smoking

Thus, whether we choose to go to school, save, or smoke or not today influences our well-being and our happiness tomorrow.



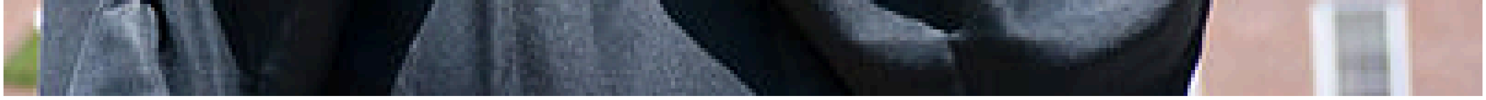


Image 7: Graduating college

Image 8: Saving money

Image 9: A cigarette

Also, since scarcity never actually gets solved, we are always choosing. In other words, we always have a choice! Even when we decide not to choose, we have already made a choice.

Video

Please visit the textbook on a web or mobile device to view video content.

Video

Please visit the textbook on a web or mobile device to view video content.

One of the reasons economics is so important and why many college degrees require it is that economics is truly everywhere; we constantly make choices throughout the day. Even if we don't have a choice, we genuinely do: take it or leave it.

The Economic Way of Thinking: Scarcity, Choice, and Opportunity Cost

In economics, the fundamental problem of scarcity implies a choice. Choices indicate a tradeoff, and tradeoffs imply cost. In other words, when I choose to go to class, I'm giving up the opportunity to do something else with my time.

In economics, cost is always a foregone opportunity.

Image 10: Which path will she choose?

Opportunity Cost

In economics, **opportunity cost** is the cost. It relates to the idea of choice and thus the concept of scarcity.

Story: Kingdom of TANSTAAFL

Once upon a time, a young princess became queen of a country called TANSTAAFL. One of the first decrees of the queen was to have her economists teach her everything they knew about economics. So,

a year later, the economists came back to the queen and presented her with 50 books on economics. The queen laughed and said, "you have got to be kidding me. Do you want me to read 50 books on economics? Try again."
So, she sent the economists away. Another year later, the economists returned, this time with only one book with 500 pages describing economics. They presented it to the queen. Unfortunately, by now, the queen had become a ruthless tyrant and laughed at the economists when they showed her this textbook book containing 500 pages about economics. "You expect me to read 500 pages of economics? Tell you what, I will give you 24 hours to develop one sentence to explain everything about economics. Otherwise, I'm going to lop your heads off."

Unfortunately, as the 24-hour deadline approached, the economists realized they could not meet the queen's demand. So, they did what anyone would do in their situation: they ordered a pizza. However, when the pizza showed up, they realized they had no money to pay the delivery person since they had spent all their money trying to satisfy the queen's last demand. The angry pizza delivery person took the pizza back. Shortly after, the queen's guards came to take the economists off to the guillotine. As the crowd gathered around the guillotine to watch the economists lose their heads, the queen finally asked them, "can you teach me everything on economics in one sentence?"

The economists could not, but before they could answer, they heard a voice shout out a sentence from the crowd, and it turned out it was the angry pizza delivery person. After hearing what he said, the economists gathered, talked, and said, "That's it! That's it."

The queen asked, "what is it?"

So, the economists repeated the sentence shouted by the angry pizza delivery person to the queen and told her it sums up everything about economics in one sentence. The queen smiled and gave the economists a full pardon and a free meal. Do you know what the pizza delivery person said from the crowd that gave the economists a full pardon and a free meal? Yes. TANSTAAFL: There Ain't No Such Thing As A Free Lunch. T-A-N-S-T-A-A-F-L: There ain't no such thing as a free lunch.

That, everyone, is opportunity cost. Every time you make a choice, there is a cost. There is no such thing as a free lunch.

Q 1.7

What is your opportunity cost of attending this economics class?

Your Answer

I was uunable to hang out with my freinds. But that said i am able to get good grades bc i went.

Story: Apply the concept of opportunity cost on the dating scene

Have you ever met someone in person or online, and your first impression of them was not overly positive? However, you find out they are very interested in you. Even after speaking (or texting) with them a few times, you realize there is no spark, but their interest in you continues to grow for them. As a result, you feel they will be asking you out very soon, but you have no desire to date this person. So how can you use economics to let them down (assuming you do) gently? Simple. When they ask you, "would you like to join me on a date this weekend?" You reply, "This weekend? I would like to, but the opportunity cost is too high." In other words, it's too costly to go on a date.

Q 1.8

Mark as: None

Why do web sites offering matches for people with very specific characteristics charge a higher fee that those offering a general dating service?

Select an answer and submit. For keyboard navigation, use the up/down arrow keys to select an answer.

a Because some websites are run by more greedy people.

b There is no reason, this is irrational

c Because individuals with specific dating needs have higher opportunity costs for dating.

d Because individuals with specific dating needs have lower opportunity costs for dating.

Show submitted answer Show correct answer Check My Answer

Let us summarize where we've been so far in this module. Limited resources and unlimited wants are known as scarcity. Scarcity implies choices, and choices mean opportunity cost.

Limited Resources ⟶ Scarcity ⟶ Choice⟶ Opportunity Cost

1.6 Define, apply, and explain how incentives affect marginal analysis.

Image 11: Is an extra hour studying worth the higher grade?

Marginal Analysis

Now let us examine how people make decisions based on opportunity cost and tradeoffs. Often, people make choices based on **marginal analysis**. When presented with a choice, I often weigh the **marginal benefit** versus the **marginal cost**. What's the marginal benefit of studying one more hour for an economics exam versus the marginal cost of doing so? Suppose a marginal benefit of studying one more hour for an economics exam is greater than or equal to the marginal cost. In that case, I will engage in this activity and study that extra hour. If the marginal cost is greater than the marginal benefit, then I won't study that extra hour of economics.

Incentives

Our rational choices respond to incentives. Marginal analysis can change based on **incentives**. In other words, the marginal benefit or marginal cost may change based on either a positive or negative incentive. For example, a **positive incentive** could be money. If I get straight A's this semester; then I will receive $100 from my parents.

In contrast, a **negative incentive**, such as jail time, likely discourages behavior. If I engage in illegal activity, chances are, I am going to jail. Thus, positive or negative incentives can ultimately change my decision.

Image 12: Jaywalking in New York City in the 1970s

Why people **jaywalk**? Because it's probably in their best interest to do so (shortest or quickest way to cross a street). However, jaywalking is illegal. I will likely have to pay a fine if I get caught jaywalking. So, by having this fine, it may incentivize me not to jaywalk.

Image 13: Sallie Mae was a government entity that serviced federal education loans and now provides private education loans.

Incentives can also coordinate or align self-interest and social interest. Again, the example of education is an excellent illustration. Providing students with financial aid may encourage them to behave in their own self-interest and go to college. As a result, societal interest increases from the likelihood of more college graduates. Thus, the incentive of financial aid can help align the self-interest and social welfare of choosing to go to college.

Some examples of incentives

- Choices between life and death
- Happy Hours
- After Christmas sales
- Taxes and birth rates

Q 1.9

Mark as: None

Would you ever cheat on a partner?

Select an answer and submit. For keyboard navigation, use the up/down arrow keys to select an answer.

a	No, never
b	Yes, for \$5 even if I got caught.
c	Yes, for \$5,000 even if I got caught.
d	Yes, for \$5,000,000 even if I got caught.
e	Yes for \$5,000,000,000 even if I got caught.
f	Yes, for \$0.

Show submitted answer

Show correct answer

Check My Answer

Story of Winston Churchill and Lady Astor

One of the best examples of incentives is a discussion between Winston Churchill and Lady Astor, who had fascinating exchanges. One such debate hinged on the idea of incentives. Winston Churchill asked Lady Astor, "would she sleep with a man for \$1,000,000 if the \$1,000,000 was guaranteed?"

Lady Astor did not need the money. However, after much thought, she said to Winston Churchill, "yes, she would if the money was guaranteed."

Churchill smiled and said, "OK would you sleep with me for \$5.00?"

Lady Astor immediately replied, "Of course not! What do you think I am? A prostitute?"

Churchill knew he had won the battle of wits by responding, "we've already established that fact. We're just negotiating the price."

What would it take for you to change your behavior? In many TV shows and movies, we see characters willing to give up even some of their most sacred choices if the price is right.

1.7 Differentiate between normative and positive economics.

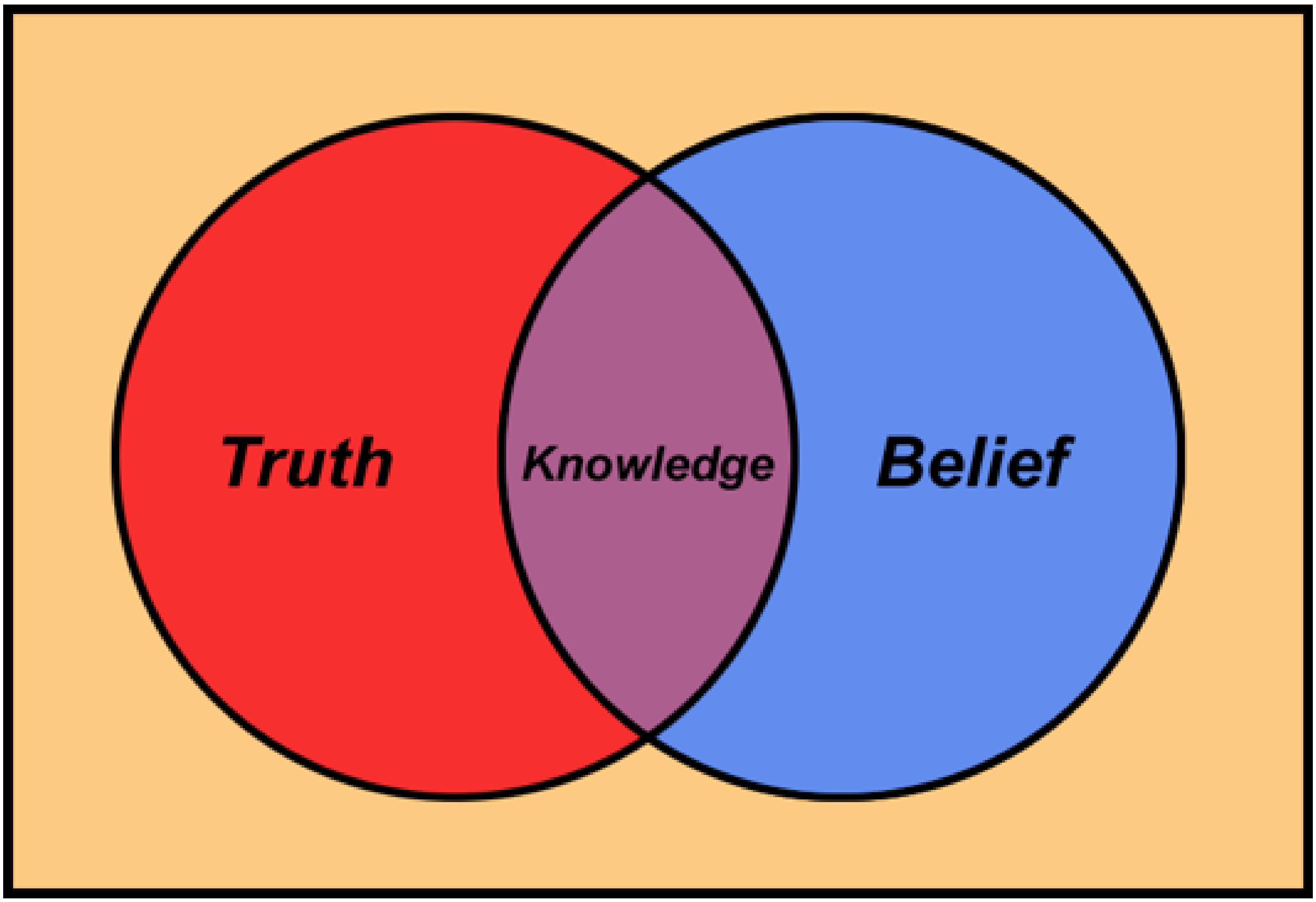


Image 14

Positive versus Normative Economics

Positive economics is a statement, but it does not have to be true. Most economic analysis is positive since it tests statements against facts. It is a statement of *what is*. These statements may be wrong, but they are testable. On the other hand, **normative economics** is more about personal judgments or a person's values. It is a statement of *what ought to be*. Normative economics is what we hope you will apply. Normative economics is more about beliefs, whereas positive economics is more factual. Positive economic statements can be an if-then statement.

For example, "if the price of gas rises, then the quantity demanded will fall." That statement could be true or false. On the other hand, a normative economic statement such as "the price of gasoline is too high" is more of a value judgment. What determines the value of "too high"? Studying economics gives you the tools necessary to use positive economic analysis, so whatever normative economic analysis you'd like to make, you can still back it up with positive economic analysis.

Q1.9

Mark as: None

The statement Everyone should have free health care is an example of

Select an answer and submit. For keyboard navigation, use the up/down arrow keys to select an answer.

a	Positive economics
b	Normative economics

Show submitted answer

Show correct answer

Check My Answer

1.8 Examine how models illustrate economic theory, which data evaluates.

Economics: A Social Science