ECONOMICS / BUSINESS / FREE ENTERPRISE

Study Guide

Georgia End-Of-Course Tests

DEPARTMENT OF EDUCATION
STATE OF GEORGIA

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Georgia Department of Education

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Revised September 2009

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INTRODUCTION

This study guide is designed to help students prepare to take the Georgia End-of-Course Test (EOCT) for ***Economics/Business/Free Enterprise***. This study guide provides information about the EOCT, tips on how to prepare for it, and some suggested strategies students can use to perform their best.

What is the EOCT? The EOCT program was created to improve student achievement through effective instruction and assessment of the Georgia Performance Standards (GPS) specific to the eight EOCT core high school courses. The EOCT program also helps to ensure that all Georgia students have access to a rigorous curriculum that meets high performance standards. The purpose of the EOCT is to provide diagnostic data that can be used to enhance the effectiveness of schools' instructional programs.

The Georgia End-of-Course Testing program is a result of the A+ Educational Reform Act of 2000, O.C.G.A. §20-2-281. This act requires the Georgia Department of Education to create end-of-course assessments for students in grades 9 through 12 for the following core high school subjects:

Mathematics
- Mathematics I: Algebra/Geometry/Statistics
- Mathematics II: Geometry/Algebra II/Statistics

Social Studies
- United States History
- Economics/Business/Free Enterprise

Science
- Biology
- Physical Science

English Language Arts
- Ninth Grade Literature and Composition
- American Literature and Composition

Getting started: The HOW TO USE THE STUDY GUIDE section on page 2 outlines the content in each section, lists the materials you should have available as you study for the EOCT, and suggests some steps for preparing for the ***Economics/Business/Free Enterprise*** **EOCT**.

HOW TO USE THE STUDY GUIDE

This study guide is designed to help you prepare to take the ***Economics/Business/ Free Enterprise*** **EOCT**. It will give you valuable information about the EOCT, explain how to prepare to take the EOCT, and provide some opportunities to practice for the EOCT. The study guide is organized into three sections. Each section focuses on a different aspect of the EOCT.

The OVERVIEW OF THE EOCT section on page 4 gives information about the test: dates, time, question format, and number of questions that will be on the ***Economics/Business/Free Enterprise*** **EOCT**. This information can help you better understand the testing situation and what you will be asked to do.

The PREPARING FOR THE EOCT section that begins on page 5 provides helpful information on study skills and general test-taking skills and strategies. It explains how to prepare before taking the test and what to do during the test to ensure the best test-taking situation possible.

The TEST CONTENT section that begins on page 11 explains what the ***Economics/ Business/Free Enterprise*** **EOCT** specifically measures. When you know the test content and how you will be asked to demonstrate your knowledge, it will help you be better prepared for taking the EOCT. This section also contains some suggested test-taking strategies for successfully answering questions on the EOCT.

GET IT TOGETHER

In order to make the most of this study guide, you should have the following:

Materials
- This study guide
- Pen or pencil
- Paper
- Highlighter

Resources:
- Dictionary
- Economics textbook
- A teacher or other adult

Study Space:
- Comfortable (but not too comfortable)
- Good lighting
- Minimal distractions
- Enough work space

Time Commitment:
- When are you going to study?
- How long are you going to study?

Determination:
- Willingness to improve
- Plan for meeting goals

With some time, determination, and guided preparation, you will be better prepared to take the ***Economics/Business/Free Enterprise*** **EOCT**.

SUGGESTED STEPS FOR USING THIS STUDY GUIDE

1 Familiarize yourself with the structure and purpose of the study guide. (You should have already read the INTRODUCTION and HOW TO USE THE STUDY GUIDE. Take a few minutes to look through the rest of the study guide to become familiar with how it is arranged.)

2 Learn about the test and the performance expectations.
(Read OVERVIEW OF THE EOCT.)

3 Improve your study skills and test-taking strategies.
(Read PREPARING FOR THE EOCT.)

4 Learn what the test will assess by studying the standards in each domain. Also, study the strategies for answering questions that assess the standards in the domain.
(Read TEST CONTENT.)

5 Answer the sample questions at the end of each domain section. Check your answers against the annotated answers to see how well you did.
(See TEST CONTENT.)

OVERVIEW OF THE EOCT

Good test takers understand the importance of knowing as much about a test as possible. This information can help you determine how to study and prepare for the EOCT and how to pace yourself during the test. The box below gives you a snapshot of the ***Economics/Business/Free Enterprise*** **EOCT** and other important information.

THE EOCT AT A GLANCE

Administration Dates:

The EOCT has three primary annual testing dates: once in the spring, once in the summer, and once in the winter. There are also mid-month, online tests given in August, September, October, November, February, and March.

Administration Time:

Each EOCT is composed of two sections, and students are given 60 minutes to complete each section. There is also a short stretch break between the two sections of the test.

Question Format:

All the questions on the EOCT are multiple choice.

Number of Questions:

Each section of the ***Economics/Business/Free Enterprise*** **EOCT** contains 40 questions; there are a total of 80 questions on the ***Economics/Business/Free Enterprise*** **EOCT**.

Impact on Course Grade:

A student's EOCT score is 15% of his or her final course grade.

If you have additional administrative questions regarding the EOCT, please visit the Georgia Department of Education Web site at www.doe.k12.ga.us, see your teacher, or see your school test coordinator.

PREPARING FOR THE EOCT

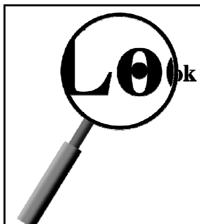
WARNING!

You cannot prepare for this kind of test in one night. Questions will require you to apply your knowledge, not to list specific facts. Preparing for the EOCT will take time, effort, and practice.

To do your best on the ***Economics/Business/Free Enterprise*** **EOCT**, it is important that you take the time necessary to prepare for this test and develop those skills that will help you take the EOCT.

First, you need to make the most of your classroom experiences and test-preparation time by using good **study skills**. Second, it is helpful to know general **test-taking strategies** to ensure that you will achieve your best score.

Study Skills



A LOOK AT YOUR STUDY SKILLS

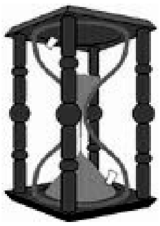
Before you begin preparing for this test, you might want to consider your answers to the following questions. You may write your answers here or on a separate piece of paper.

1. How would you describe yourself as a student?
   Response: ____
2. What are your study skill strengths and/or weaknesses as a student?
   Response: ____
3. How do you typically prepare for an Economics test?
   Response: ____
4. Are there study methods you find particularly helpful? If so, what are they?
   Response: ____
5. Describe an ideal study situation (environment).
   Response: ____
6. Describe your actual study environment.
   Response: ____
7. What can you change about the way you study to make your study time more productive?
   Response: ____

Effective study skills for preparing for the EOCT can be divided into three categories:

- **Time Management**
- **Organization**
- **Active Participation**

Time Management



Do you have a plan for preparing for the EOCT? Often students have good intentions for studying and preparing for a test, but without a plan, many students fall short of their goals. Here are some strategies to consider when developing your study plan:

- Set realistic goals for what you want to accomplish during each study session and chart your progress.
- Study during your most productive time of the day.
- Study for reasonable amounts of time. Marathon studying is not productive.
- Take frequent breaks. Breaks can help you stay focused. Doing some quick exercises (e.g., sit-ups or jumping jacks) can help you stay alert.
- Be consistent. Establish your routine and stick to it.
- Study the most challenging test content first.
- For each study session, build in time to review what you learned in your last study session.
- Evaluate your accomplishments at the end of each study session.
- Reward yourself for a job well done.

Organization

You don't want to waste your study time. Searching for materials, trying to find a place to study, and debating what and how to study can all keep you from having a productive study session. Get organized and be prepared. Here are a few organizational strategies to consider:

- Establish a study area that has minimal distractions.
- Gather your materials in advance.
- Develop and implement your study plan (see Appendices A–D for sample study plan sheets).

Active Participation

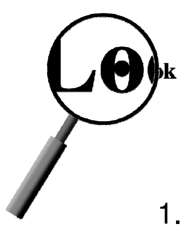
Students who actively study will learn and retain information longer. Active studying also helps you stay more alert and be more productive while learning new information. What is active studying? It can be anything that gets you to interact with the material you are studying. Here are a few suggestions:

- Carefully read the information and then DO something with it. Mark the important points with a highlighter, circle with a pen, write notes, or summarize the information in your own words.
- Ask questions. As you study, questions often come into your mind. Write them down and actively seek the answers.
- Create sample test questions and answer them.
- Find a friend who is also planning to take the test and quiz each other.

Test-taking Strategies

There are many test-taking strategies that you can use before and during a test to help you have the most successful testing situation possible. Below are a few questions to help you take a look at your test-taking skills.

A LOOK AT YOUR TEST-TAKING SKILLS



As you prepare to take the EOCT, you might want to consider your answers to the following questions. You may write your answers here or on your own paper.

1. How would you describe your test-taking skills?
   Response: ____
2. How do you feel when you are taking a test?
   Response: ____
3. List the strategies that you already know and use when you are taking a test.
   Response: ____
4. List test-taking behaviors you use that contribute to your success when preparing for and taking a test.
   Response: ____
5. What would you like to learn about taking tests?
   Response: ____

Suggested Strategies to Prepare for the EOCT

Learn from the past. Think about your daily/weekly grades in your Economics classes (past and present) to answer the following questions.

- In which specific areas of Economics were you or are you successful?

  Response: ____

- Is there anything that has kept you from achieving higher scores?

  Response: ____

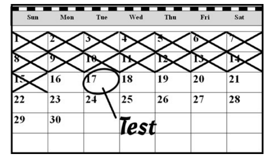
- What changes should you implement to achieve higher scores?

  Response: ____

Before taking the EOCT, work toward removing or minimizing any obstacles that might stand in the way of performing your best. The test-preparation ideas and test-taking strategies in this section are designed to help guide you to accomplish this.

Be prepared. The best way to perform well on the EOCT is to be prepared. To do this, it is important that you know what standards/skills will be measured on the ***Economics/Business/Free Enterprise*** **EOCT** and then practice understanding and using those standards/skills. The TEST CONTENT section of this study guide is designed to help you understand the specific standards that are on the ***Economics/Business/Free Enterprise*** **EOCT** and give you suggestions for how to study the standards that will be assessed. Take the time to read through this material and follow the study suggestions. You can also ask your Economics teacher for any suggestions he or she might offer on preparing for the EOCT.

Start now. Don't wait until the last minute to start preparing. Begin early and pace yourself. By preparing a little bit each day, you will retain the information longer and increase your confidence level. Find out when the EOCT will be administered so you can allocate your time appropriately.



Suggested Strategies the Day before the EOCT

✓ **Review what you learned from this study guide**

1. Review the general test-taking strategies discussed in the TOP 10 SUGGESTED STRATEGIES DURING THE EOCT on page 10.
2. Review the content domain–specific information discussed in the section TEST CONTENT, beginning on page 11.
3. Focus your attention on the domain, or domains, that you are most in need of improving.

✓ **Take care of yourself**

1. Try to get a good night's sleep. Most people need an average of eight hours, but everyone's sleep needs are different.
2. Don't drastically alter your routine. If you go to bed too early, you might lie in bed thinking about the test. You want to get enough sleep so you can do your best.

Suggested Strategies the Morning of the EOCT

Eat a good breakfast. Choose foods high in protein for breakfast (and for lunch if the test is given in the afternoon). Some examples of foods high in protein are peanut butter, meat, and eggs. Protein gives you long-lasting, consistent energy that will stay with you through the test to help you concentrate better. Avoid foods high in sugar content. It is a misconception that sugar sustains energy—after an initial boost, sugar will quickly make you more tired and drained. Also, don't eat too much. A heavy meal can make you feel tired. Think about what you eat before the test.

Dress appropriately. If you are too hot or too cold during the test, it can affect your performance. It is a good idea to dress in layers, so you can stay comfortable, regardless of the room temperature, and keep your mind on the EOCT.

Arrive for the test on time. Racing late into the testing room can cause you to start the test feeling anxious. You want to be on time and prepared.

TOP 10

Suggested Strategies during the EOCT

These general test-taking strategies can help you do your best during the EOCT.

1 **Focus on the test.** Try to block out whatever is going on around you. Take your time and think about what you are asked to do. Listen carefully to all the directions.

2 **Budget your time.** Be sure that you allocate an appropriate amount of time to work on each question on the test.

3 **Take a quick break if you begin to feel tired.** To do this, put your pencil down, relax in your chair, and take a few deep breaths. Then, sit up straight, pick up your pencil, and begin to concentrate on the test again. Remember that each test section is only 60 minutes.

4 **Use positive self-talk.** If you find yourself saying negative things to yourself such as "I can't pass this test," it is important to recognize that you are doing this. Stop and think positive thoughts such as "I prepared for this test, and I am going to do my best." Letting the negative thoughts take over can affect how you take the test and your test score.

5 **Mark in your test booklet.** Mark key ideas or things you want to come back to in your test booklet. Remember that only the answers marked on your answer sheet will be scored.

6 **Read the entire question and the possible answer choices.** It is important to read the entire question so you know what it is asking. Read each possible answer choice. Do not mark the first one that "looks good."

7 **Use what you know.** Draw on what you have learned in class, from this study guide, and during your study sessions to help you answer the questions.

8 **Use content domain–specific strategies to answer the questions.** In the TEST CONTENT section, there are a number of specific strategies that you can use to help improve your test performance. Spend time learning these helpful strategies, so you can use them while taking the test.

9 **Think logically.** If you have tried your best to answer a question but you just aren't sure, use the process of elimination. Look at each possible answer choice. If it doesn't seem like a logical response, eliminate it. Do this until you've narrowed down your choices. If this doesn't work, take your best educated guess. It is better to mark something down than to leave it blank.

10 **Check your answers.** ☑ When you have finished the test, go back and check your work.

A WORD ON TEST ANXIETY

It is normal to experience some stress when preparing for and taking a test. It is what helps motivate us to study and try our best. Some students, however, experience anxiety that goes beyond normal test "jitters." If you feel you are suffering from test anxiety that is keeping you from performing at your best, please speak to your school counselor, who can direct you to resources to help you address this problem.

TEST CONTENT

Up to this point in this study guide, you have been learning various strategies on how to prepare for and take the EOCT. This section focuses on what will be tested. It also includes a section of sample questions that will let you apply what you have learned in your classes and from this study guide.

This section of the study guide will help you learn and review the various concepts that will appear on the ***Economics/Business/Free Enterprise*** **EOCT**. Since *economics* is a broad term that covers many different topics, the state of Georgia has divided it into five major areas of knowledge, called **content domains**. The content domains are broad categories. Each of the content domains is broken down into smaller ideas. These smaller ideas are called **standards**. Each content domain contains standards that cover different ideas related to its content domain. Each question on the EOCT measures an individual standard within a content domain.

The five content domains for the ***Economics/Business/Free Enterprise*** **EOCT** cover all of the major topics and concepts that are essential to understanding the field of economics. Understanding these concepts will help you understand the economic reasoning behind the behavior of individuals, businesses, and governments. This sort of understanding should help you make important decisions regarding your own career and life. Another more immediate reason the content domains are important has to do with test preparation. The best way to prepare for any test is to study and know the material measured on the test. Since the ***Economics/Business/Free Enterprise*** **EOCT** covers the five content domains and nothing else, isn't it a good idea to learn as much about these domains as you can? The more you understand about these domains, the greater your chances are of getting a good score on the EOCT.

The chart below lists the five content domains for the ***Economics/Business/Free Enterprise*** **EOCT**.

CONTENT DOMAINS

I. Fundamental Economic Concepts
II. Microeconomic Concepts
III. Macroeconomic Concepts
IV. International Economics
V. Personal Finance Economics

Studying the Content Domains

You should be familiar with many of the content standards that follow. It makes sense to spend more time studying the content standards that you think may cause you problems. Even so, do not skip over any of the standards. Be sure to study/review ALL the standards in each content domain. The TEST CONTENT section has been designed to help you do this. Each content domain will be covered. The TEST CONTENT section has been organized so that each content domain has the following features:

- **A Look at the Content Domain:** an overview of what will be assessed in the content domain
- **Spotlight on the Topics**: information about the specific standards that will be assessed (NOTE: The names of the standards may not be the exact names used by the Georgia Department of Education. Some of the names in this guide may have been modified to reflect the fact that this book is designed for students and not for professional educators.)
- **Sample Questions**: sample questions *similar* to those that appear on the EOCT
- **Answers to the Sample Questions**: in-depth explanations of the answers to the sample questions

Content Domain I: Fundamental Economic Concepts

A LOOK AT CONTENT DOMAIN I

Test questions in this content domain will measure your understanding of basic economic concepts and skills. Your answers to the questions will help show how well you can perform on the following topics:

- Scarcity and opportunity cost
- Comparison of marginal benefit and marginal cost
- Benefits of specialization
- Types of economic systems
- Role of regulatory agencies
- Investment and economic growth

If you went to a large public library, you could find entire books devoted to each of the topics mentioned above. Reading these books would increase your knowledge of economics considerably, but it is not necessary to do this for the ***Economics/Business/Free Enterprise*** **EOCT**. Instead, you need to realize that each of these topics represents a broad idea that is critical to your understanding of basic economic concepts. What you need to understand, then, is the basic, broad concept behind each topic. You don't need to know the name and specific function of every government regulatory agency; instead, you just need to understand the role a regulatory agency plays in an economy.

At the end of the section, the questions for Content Domain I will help determine if you understand these basic concepts.

Spotlight on the Topics

★*Scarcity and opportunity cost*★

The term *economics* is pretty flexible. It can be used when a bank decides to raise its prime lending rate or when a wheat farmer decides to plant one more bushel of wheat this year than he did last year. However, if you had to boil down economics to one definition, you would have something like:

Economics: a social science studying the allocation of scarce resources and goods.

The following definitions can help you understand the previous one.

Resources/Factors of Production: the inputs—land, labor, capital, and entrepreneurship—used by a society to produce outputs. Those outputs, which are often finished products such as hamburgers and cars, are called **goods**.

Scarce: short in supply. Scarcity is the noun form of the adjective *scarce*.

Allocate: to distribute according to some plan or system.

Consider a woman, Ms. Kronhorst, who wants to build a new house. Ms. Kronhorst has 20,000 square feet of land on which to build her house. Since the amount of land available is not unlimited, it is a scarce resource. She will have to make decisions about how she will allocate the space that she has. Does she want three bedrooms or four? If the master bedroom is too big, will there be enough space left over for a patio? In essence, all of these decisions are economic ones, since they deal with the allocation of a scarce resource (land on which to build the house).

The basic definition of economics can also be applied to individuals (like Ms. Kronhorst), towns, nations, and even the entire world. All resources, however, are scarce, even if they don’t appear to be at first. For instance, the United States has billions of trees within its borders, but that does not mean that all of these trees can be cut down without any consequences.

What does the United States produce with its scarce resources? The list of goods produced is long, but comparing our list of goods produced with other countries’ lists can demonstrate some interesting points. For instance, why do we produce more cars than Brazil? Why does Brazil produce more sugar than the United States? Answers to economic questions such as these can often give you insight about a country and its people, as well as help you understand why the United States has become the nation it is.

The decision to produce one good instead of another often relates to **choice** and **opportunity cost**, two common economic terms. Suppose Ms. Kronhorst also owns an empty warehouse downtown that is about the size of a football field. She would like to build big cargo airplanes, but there is not enough space in the warehouse for this to be done. Therefore, building cargo airplanes is not a choice in her decision-making process. Instead, she currently has two choices. A company would like to lease the warehouse and use the space to store furniture, but Ms. Kronhorst might use the space to build her own art gallery. Whatever she decides to do, Ms. Kronhorst faces an opportunity cost with her decision. The opportunity cost is the value of the next best alternative that she could have chosen but did not. If Ms. Kronhorst decides to lease the space to the furniture company, her opportunity cost is the loss of using the space as an art gallery. If she chooses to open the art gallery, the opportunity cost of this decision would be the income she would lose by not leasing the warehouse.

Poetry and Economics

There is a famous poem by Robert Frost that states, “Two roads diverged in a yellow wood, /And sorry I could not travel both / And be one traveler…”. In economic terms, Frost is lamenting the fact that there is an *opportunity cost* associated with choosing one road over the other. You can use this poem to help remind you that any decision, even choosing between two paths, includes an opportunity cost.

If you are given a hypothetical situation, you should be able to identify the scarce resources and the opportunity costs associated with different decisions. Looking back at Ms. Kronhorst’s new house, you can see that one primary scarce resource is land. You can also surmise the opportunity costs of choosing one house design over another. One house design may offer the benefits of six small rooms, but this might mean giving up the benefits of a design that includes three large rooms.

STRATEGY BOX — Can’t Have It All

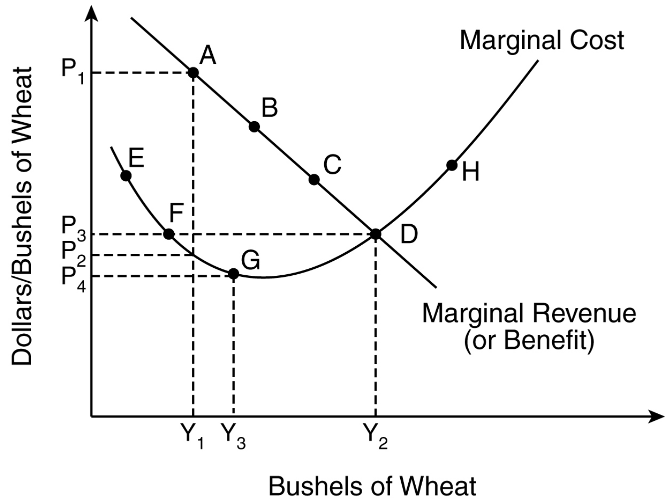
Most economic situations can be discussed using the concepts of scarcity and opportunity costs. It doesn’t matter if the subject is a nation (like the United States) or a person (like Ms. Kronhorst). Basic economic decision-making processes center on deciding how best to allocate the scarce resources at hand.

★ *Comparison of marginal benefit and marginal cost* ★

Imagine a hungry woman standing underneath a tree filled with ripe peaches. It makes sense to reach up, grab a nearby peach, and eat it. The cost (in this case, the energy required to reach out and pluck the fruit) is small, and the benefit (reducing hunger) is high. After the first peach, the woman reaches up and takes another peach. This time, the peach is a little farther away, so the cost is a bit higher. Also, she’s not as hungry as she was before, so the benefit of eating the second peach isn’t as great as the first.

Now imagine the woman has eaten five peaches. The sixth peach is high up in the tree (high cost), and the woman is feeling pretty full (low benefit), so she decides to stop eating peaches. For her the **marginal cost**—the cost of procuring one more item—outweighs the **marginal benefit**—the benefit associated with that one additional item. Therefore, the woman makes a rational economic decision to stop at five peaches.

Everyday, consumers and producers everywhere compare marginal benefits to marginal costs in order to make economic decisions. The peach example shows a consumer, the peach-eating woman, making a marginal cost/marginal benefit decision. The following graph shows how a producer, the wheat farmer from earlier, can make similar use of the concepts of marginal cost and marginal benefit to reach a sound economic decision.



The more bushels of wheat that are on the market, the lower the price, which is why the marginal revenue curve heads steadily downward. (This can be explained using the concept of scarcity—the more scarce wheat is, the higher the price.) However, some costs associated with growing wheat are better off when they are shared; for example, if the same plot of land can hold six bushels of wheat as easily as three, then the average cost of the land is reduced by half if six bushels of wheat are harvested instead of three. This is why the marginal cost curve dips down at first, then rises upward.

So how many bushels of wheat should the farmer produce? There are two ways to reach this answer. First, look at the marginal revenue curve. At point A, the price earned (P_1) is much higher than the cost associated with that production level (P_2), so (Y_1) isn't enough wheat. At point B, the difference has been reduced, but there's still revenue to be made. It's only when point D is reached that the marginal cost equals the marginal revenue.

The second way to look at the graph is to follow the marginal cost curve. It reaches its lowest point at G; after that, the marginal cost of each additional bushel of wheat starts increasing. Some might think that this means the farmer should produce (Y_3), but this thinking neglects the fact that **marginal cost is still lower than marginal revenue**. In other words, there's still money to be made; maybe not as much per bushel of wheat, but still of value. Only when marginal benefit equals marginal cost, at point D with (Y_2) wheat, should the farmer stop. After that, the cost of planting one more bushel of wheat exceeds the benefits gained from that additional bushel.

★ *Benefits of specialization* ★

Suppose you are allowed to drive your own car when you turn sixteen, but with a catch: you have to build the car yourself, entirely from scratch. What would this mean? Well, you would first have to get some metal for the frame. That means you would have to start mining, then somehow learn how to transform iron ore into steel. Then you would have to build an engine, which could take several years of schooling to do properly. Wheels would require rubber, and learning how to fashion rubber into tires would take even more study. Just creating these rudimentary car parts would take many years to accomplish.

The fact is that people no longer do everything for themselves. You don't have to grow all your own food. Instead, you can go to a grocery store. You don't have to build your own car, either. You can get one from a company that devotes all its time to making cars. In other words, because this company *specializes* in manufacturing cars, you do not have to do so.

Specialization allows people to concentrate on a single activity or area of expertise. For an entire society, specialization helps boost overall productivity and leads to an efficient use of resources. For example, suppose 1 out of every 100,000 people needs the help of a brain surgeon. In the United States, this would translate to 3,000 people who need brain surgery. If the United States has enough specialized brain surgeons to help these people, then specialization will have helped save lives. These cured people could then go back to their jobs and continue to gain expertise in their own area of specialization.

The brain surgery example shows how specialization can influence labor markets. People gain knowledge and skills in a certain area, which allows them to do that job better than other non specialists. This specialized knowledge might allow them to build a product faster, increasing output. It could also allow them to complete something that others could not even attempt. Either way, specialization expands the efficiency of a society and usually helps boost overall production ability. Furthermore, this "skilled labor" can charge more for their services, which allows individual wealth to increase. A test question that deals with this subject might look like this:

An assembly line can increase a factory's productivity because it allows workers to

A diversify their skills
B focus on a specific task
C put in overtime hours on the job
D use a wide range of knowledge

An assembly line utilizes the benefits of specialization by allowing individual workers to concentrate on a certain task. As each of these workers gains experience in one particular part of the production process, the entire factory is able to produce more without increasing the number of workers it employs or the time each employee spends on the job. While choices **A** and **D** can both be assets for a worker, an assembly line requires a worker to focus on a specific task, not acquire a broad range of skills or knowledge. Choice **C** is incorrect because using an assembly line should allow a worker to produce more without increasing the hours that he or she works. Choice **B**, on the other hand, is a good description of the type of specialization that occurs when a factory uses an assembly line. This is the correct answer.

Specialization is not limited to just labor. Other factors of production, such as capital and land, can also be specialized. A machine designed to mass-produce steering wheels is an example of specialized capital equipment designed to boost efficiency in the car-making process. Land, on the other hand, is used in specialized activities all the time. A post office specializes in sending and receiving mail, while a bank specializes in storing and transferring money.

★ *Types of economic systems* ★

The United States is primarily a capitalist system, but this is by no means the only economic system being used in the world today. The following provides a brief description of three major economic systems. While none of these systems exists in a pure form in the real world, most national economies can be described using a mixture of these systems. Learning what each represents will give you the ability to recognize elements of different systems in various national economies.

Major Economic Systems

1. **Market.** This is also called a **capitalistic** or **free-market** system. In a market system, private individuals and firms control all resources, and the price and quantity of all goods are determined by the interaction of demand and supply in unrestricted, open markets. Ownership of property and goods is determined in the private sector and the government does nothing to interfere with any market. Instead, this system relies on the belief that a market system naturally leads to efficient results (called the "invisible hand"), which theoretically correct any inequalities in resource allocation.

   The United States is very market oriented, but it is not a purely capitalistic system. One problem with market economies is that the accumulation of wealth can be uneven. Under this system some people might become very rich while others might remain poor. In the United States the government intervenes in the economy so that there is a mechanism to take care of the poor. Poverty, however, is not the only issue that might emerge if the government is completely uninvolved in markets. Other problems with unregulated activities include the elimination of competition (as monopolies would be free to exist and expand), inefficient public services, and outright theft.

2. **Command.** A command economy is the opposite of a market economy. In this case the government commands all markets, determining what to produce, how to produce, and for whom to produce. Centralized planning committees take into account all the resources a nation has to offer (labor, land, and capital) and then set up an economic system to produce this predetermined mixture of goods and services.

   Since the government is in charge of everything, citizens should all receive equal amounts of basic goods and services. In theory, this means that there should be no problems with high unemployment or poverty. In a command economy, the government is meant to provide for the welfare of its citizens.

A command economy may work in a simple society with only a small number of people. Yet today's economies are often too complex for a committee to decipher. For this reason, command economies often produce a set of goods and services that is different from what its population really wants, leading to shortages of needed goods and surpluses of others. Also, since there is no private ownership, people have little incentive to work hard. Because the government manages all basic economic decisions in a command economy, personal liberties are not as great as they are in a market economy.

The former USSR is an example of a command economy. The fact that this country collapsed economically has led many economists to question the long-term viability of command economies.

3. **Mixed.** While these two systems describe theoretical concepts of how an economy might function, in the real world most economies blend two or more systems together. For instance, while China is considered a command economy, it has rapidly begun to incorporate many aspects of a market structure into its economy. Likewise, while the United States is considered to have one of the most capitalistic economies in the world, the government still intervenes in some markets. Therefore, there is a third economic system known as a mixed economy. This is simply a way of naming an economy that incorporates aspects from different economic systems.

A question for this standard might look like this:

The nation of Welton needs to build a new dam to control flooding near its largest city. If Welton is a pure market economy, then these new improvements will MOST likely be left up to

A the government
B the individuals who are willing to pay for the new dam
C anyone who would benefit from the dam
D the owners of the property on which the dam would be built

This question highlights a problem with a purely market-based system, namely that public goods (like roads, bridges, and dams) are difficult to build without a government that sees to their production. Choice **C** is not the correct answer because once a dam is built everyone benefits from it. While choice **D** might seem like a correct answer, if a property owner does not want the dam to be built, he or she is under no obligation to build it. Ultimately, in a pure market economy individuals must be willing to pay for public goods (answer choice **B**), no matter who would benefit from the final product.

✭ *Role of regulatory agencies* ✭

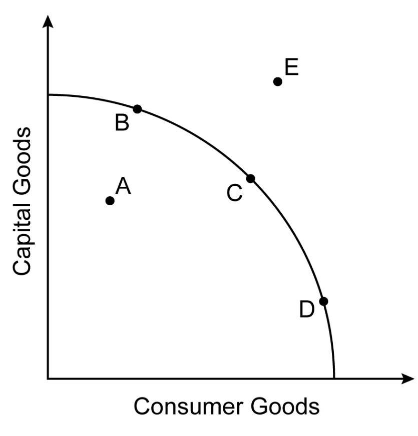
The existence of numerous government regulatory agencies is yet another way that the United States is not a purely capitalist society. These agencies work to ensure the safety of goods and services. For example, government inspectors check various meats and other foods for harmful bacteria. Other agencies, such as the Consumer Product Safety Commission (CPSC), test a host of different goods for potential hazards; in 2007, the CPSC recalled various toys and other products from China because these goods used lead paint in violation of current U.S. law.

STRATEGY BOX — On Your Side

Government regulation takes many forms. Overall, the goal of the government is to provide for the health and safety of its citizens and its businesses. Some regulations protect citizens from corporate abuse. Other government regulations help businesses recover from external problems by offering money to help offset an unforeseen disaster.

✭ *Investment and economic growth* ✭

Many people enjoy discussing the national economy, particularly *changes* in the national economy. Is the economy growing or shrinking? What is being made, and how has that changed over time? A graph can be very helpful when discussing these questions and when describing basic concepts like investment and growth.

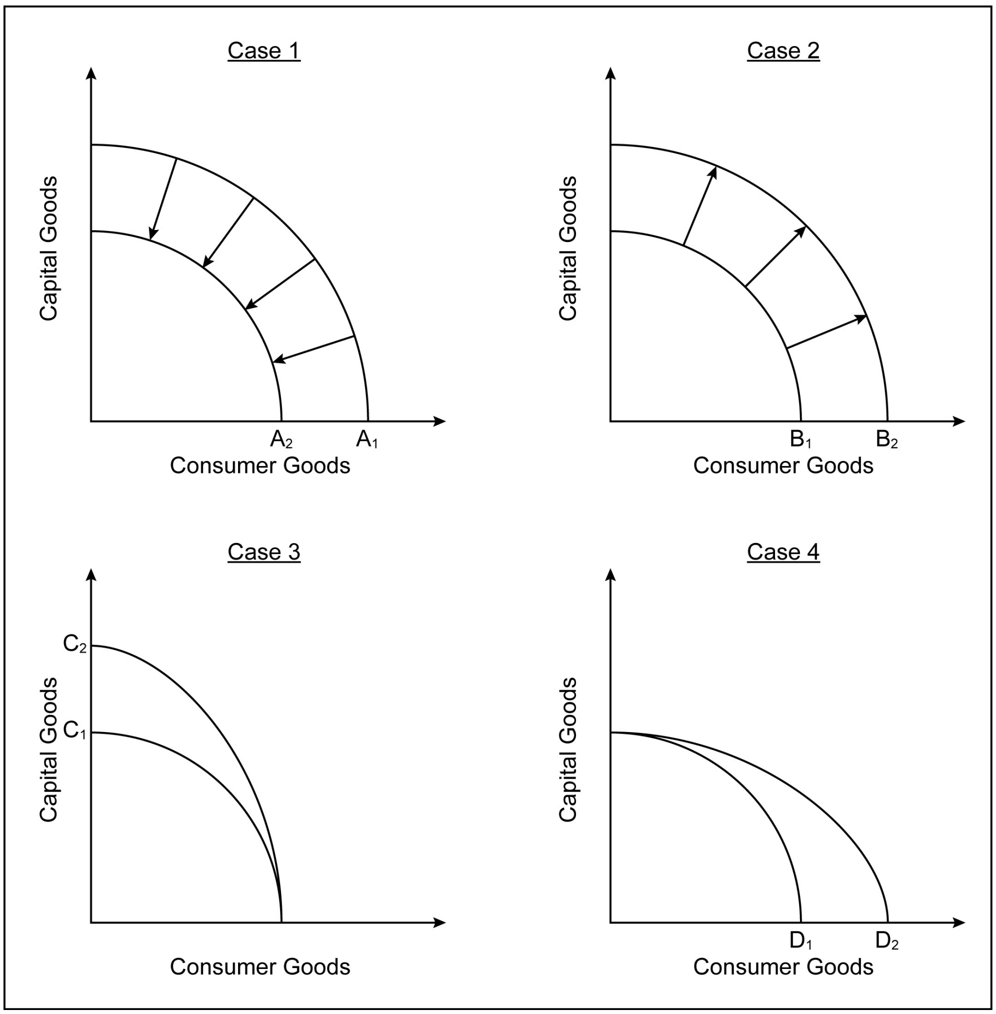


For this economy, there are only capital goods and consumer goods. The curved line is the economy's **production possibility curve (PPC)**, the maximum this economy can produce based on all inputs (like labor and capital). The curved nature of the line illustrates how one good can only be produced by taking inputs away from the other good.

While this is an overly simplified image of an actual economy, this graph can still explain a variety of relevant ideas. For example, Point A is inside the PPC, so an economy producing that mix of consumer and capital goods is not performing to its capacity. Point E is outside the graph, showing that the mix of goods at point E is currently not achievable by this economy.

Points B, C, and D all lie on the PPC, and they illustrate an economy producing at optimal conditions. The mix of goods (consumer and capital) is different at each point; therefore, movement from D to B could signal that this economy is shifting from production of goods requiring more labor (consumer goods) to those requiring more capital inputs.

Different PPC graphs can show how different variables affect an economy.



A natural disaster such as a hurricane has the effect of Case 1 on a local economy. Here, both capital (buildings and equipment) and labor are lost due to the calamity. Since the region's production inputs are reduced, so too is its PPC, moving from A_1 to A_2. The region may recover over time, but the immediate effect of the disaster is to move the entire PPC inward.

Conversely, consider a local area with a booming economy; people are moving there in droves (providing labor), and businesses are investing in the area to take advantage of the increased number of consumers and potential employees. This would lead to a condition illustrated in Case 2, where the entire PPC shifts outward.

Now imagine a small town has just received a large economic development grant from the federal government. The amount of capital available to this economy has greatly increased while its labor pool remains unchanged, so a movement like that shown in Case 3 occurs. The new PPC, C_2, shows how the investment will create an enhanced ability to produce capital goods. Lastly, increases in labor inputs (such as a higher number of college graduates) will lead to Case 4. Here, the boost to the labor force allows the PPC to shift from D_1 to D_2.

Sample Questions for Content Domain I

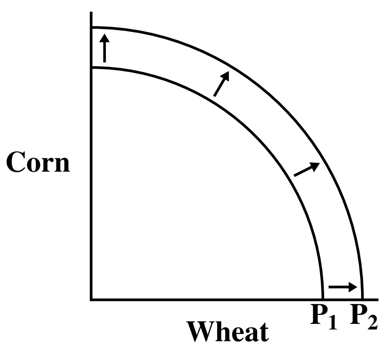
This section contains sample questions for you to try to answer. After you have completed all the questions, check your answers in the "Answers to the Content Domain I Sample Questions" section that follows. The section will also explain why the other answer choices are incorrect.

1 Opportunity cost is BEST described as the

A most expensive resource used in production
B sum of all production costs
C value of the next best alternative forgone when a choice is made
D monetary value of all alternatives forgone when a choice is made

2 Use this graph to answer the question.

Farm Production Possibilities Curve



What BEST explains the shift of the production possibilities curve from P_1 to P_2?

A improvements in agricultural technology
B inflationary increases in process
C higher costs of producing corn
D higher costs of producing wheat

3 Alex and Dylan mow and trim lawns. Currently, each man mows and trims a lawn by himself, but the process takes a long time. They would MOST likely improve their efficiency if

A Alex and Dylan mow a lawn and then trim it together
B Alex mows a lawn while Dylan trims the same lawn
C Alex trims Dylan's lawn while Dylan trims Alex's lawn
D Alex and Dylan reduce the number of lawns they mow and trim

4 With which term is a command economic system MOST closely associated?

A entrepreneurship
B absolute advantage
C perfect competition
D governmental regulation

Answers to the Content Domain I Sample Questions

1. Answer: **C** Standard: *Scarcity and opportunity cost*
Opportunity cost is the value of the next best economic choice you did NOT make. Choice **D** is the sum of all possible opportunity costs, but opportunity costs are not added up. Only the best alternative forgone, choice **C,** counts as the opportunity cost.

2. Answer: **A** Standard: *Investment and economic growth*
An outward expansion of a production possibilities frontier means greater productivity. One way greater productivity can be achieved is by improving technology.

3. Answer: **B** Standard: *Benefits of specialization*
One of the best ways to improve efficiency is to specialize, which means each person in a production process concentrates on a specific task. Choice **A** would still require each man to mow and trim, while choice **C** simply changes the lawn each man is trimming. Choice **D**, on the other hand, reduces the total number of lawns they mow but does not improve the efficiency with which they complete their task. Only choice **B** would be a specialization of labor. In this case, Dylan now does one task in the production process (trims) while Alex does another task (mows). According to economic theory, this specialization will make each man better at his respective task and reduce the time it takes to change from one task to another, thereby increasing their overall efficiency.

4. Answer: **D** Standard: *Types of economic systems*
In a command economic system, governmental regulations have a major role in most production and distribution decisions. Hence, choice **D** is the answer. Choices **A**, **B**, and **C** are economic terms not closely associated with a command economic system.

Content Domain II: Microeconomic Concepts

A LOOK AT CONTENT DOMAIN II

Test questions in this content domain will measure your understanding of economic elements in the marketplace. Your answers to the questions will help show how well you can perform on the following topics:

- Circular flow of goods and resources
- The laws of supply and demand
- Markets and prices
- Types of business organizations and market structures

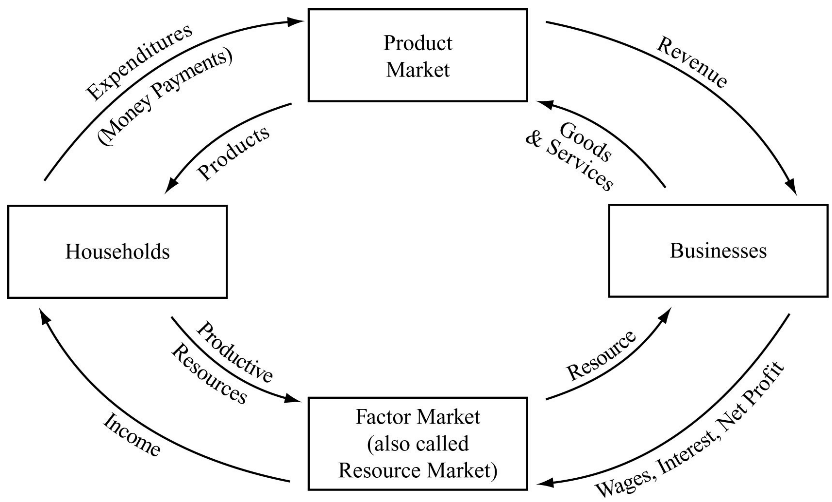
Microeconomics studies the interaction of people and businesses (also called "**firms**") within a market. Business managers use microeconomic ideas to make decisions about how much to produce, how to price the goods and services they produce, and what wages to pay for the work they need done. These ideas are critical to running a successful business. If you understand them, you should be able to predict how consumers and producers will behave. For example, suppose a firm drastically reduces its prices without reducing the quantity or quality of its output. Microeconomic theory suggests that other firms in that market will react to that decision. Some firms will decide to reduce their prices while others may shut down because they are no longer able to remain competitive.

Microeconomics can be described as the study of people and businesses within a single market. This small focus—only one particular market—is one way microeconomics (literally "small economics") is different from macroeconomics ("large economics").

Spotlight on the Topics

✯ Circular flow of goods and resources ✯

The relationship between goods and resources is shown here:



In explaining economics, using visual aids can greatly enhance understanding. The various relationships between goods and resources can all be shown on this single diagram. Having said that, the graph is a bit involved, so let's go through a quick example using a product as simple as popcorn.

Imagine a family wants to have some popcorn to eat during movie night. The family would be represented by the "Households" box on the left. Rather than do everything themselves to produce the popcorn (remember the car example from the last chapter), someone in the household will just go to a grocery store and buy the popcorn. The grocery store is the "Product Market," where people pay money ("Expenditures") to get the goods they need ("Products" like popcorn).

Where did the family get the money to pay for the popcorn? Very likely, someone worked at a job in return for a salary. In the diagram, the working family member of the household provided labor (a "Productive Resource") at a "Factor Market" (also called a "Resource Market") in return for "Income," or money.

That explains the left side of the diagram, showing how the family demanded popcorn and then acquired it. The right side of the diagram shows how the popcorn was supplied. To be a successful popcorn "Business," a company must secure kernels of corn; these are the primary "Resource" needed to produce popcorn. In the diagram, the "Resource" can be paid for by "Wages, Interest, Net Profit." This just illustrates that there is a variety of ways a business can pay for its resources. If the popcorn company owns its own farm, it would pay “Wages” to its employees to harvest the “Resource.” If it doesn’t own its own farm, it might pay money (“Net Profit”) to some independent farmer in order to purchase corn, its “Resource.”

Once the business has its kernels of corn, it’s time to package them and prepare them for sale in the grocery store. These bags of popcorn are the “Goods” that travel to the “Product Market.” Of course, the popcorn company doesn’t give its popcorn away; the grocery store must pay the popcorn maker money, which is shown as the “Revenue” arrow.

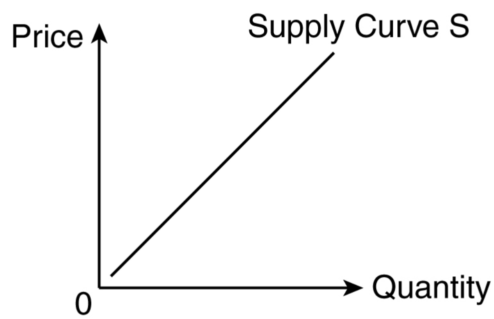
Although this example used popcorn, any number of goods and services can be substituted. Also, if you imagine this diagram as a wheel, look at the outer arrows and realize that the wheel only turns because of the presence of money. The presence of money makes the circular diagram “flow,” so to speak. With it, everyone can get paid for labor and pay for items using the same medium of exchange (money). The flow of goods and resources might still occur without money, but at each point, people would have to agree on what constitutes a fair payment or exchange of goods and services.

STRATEGY BOX — Go With the Flow

Study the circular diagram carefully and be sure you understand each aspect of it. The diagram provides a simple and easy way to show how households and businesses interact, as well as how the product market and resource market are connected.

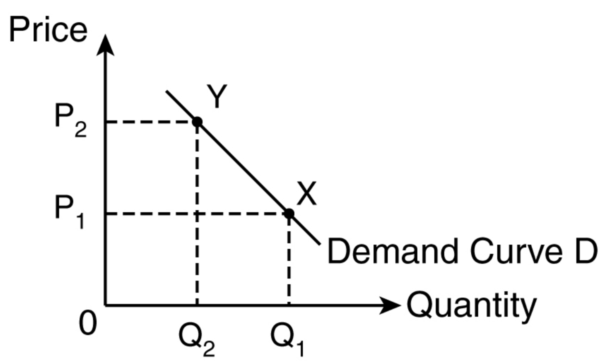
✯ *The laws of supply and demand* ✯

Continuing the example that began on page 14, Ms. Kronhorst has decided to research the furniture company that wants to lease her warehouse. The Second Time Sofa Company specializes in making sofas and chairs from recycled plastic bottles. Currently, it is the only company in the United States that makes plastic sofas. The graph on the following page shows the quantity of sofas Second Time is willing and able to offer at different prices. The graph shows the firm’s **supply**, the quantity of goods or services that someone is able and willing to supply at different prices.



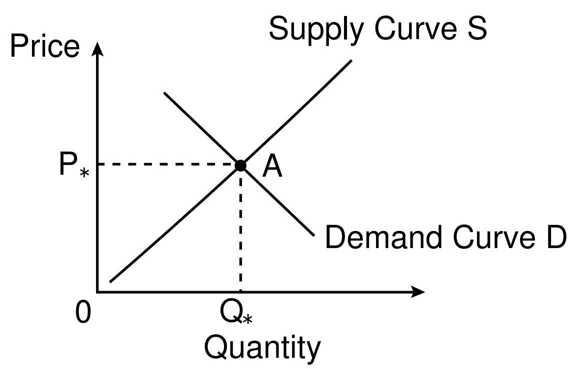
Like many supply curves, this one is upward sloping. This reflects the **Law of Supply**, which states that the quantity supplied is typically directly proportional to the price, all other things being equal. In other words, as price goes up (the vertical axis), Second Time is willing to make more sofas in order to make a larger profit. There might be other factors involved, which is why the phrase “all other things being equal” must be used. However, if a business can make *more* money by producing more of some good or service, then that’s typically what will occur.

Of course, the Second Time Sofa Company needs to find people willing to buy its plastic sofas. This information can be called the demand curve for its sofas. The demand curve shows the amount of goods or services that buyers are able and willing to purchase at different prices.



Unlike the supply curve, the demand curve slopes downward. This reflects the **Law of Demand**, which states that the quantity demanded is typically inversely proportional to its price, all other things being equal. In other words, the amount of a good that people demand declines when the price of a good increases. At point X, the price is P_1, and quantity of plastic sofas is at Q_1. If the price increases to P_2 at point Y, then the quantity demanded will decrease to Q_2.

While the theory of demand may not be easy to understand, creating an actual demand schedule can be even trickier. It depends on the tastes and preferences of all the buyers in a society. Some people might want a plastic sofa at any price, while others would only want a plastic sofa at a particular price. If the Second Time Sofa Company could come up with a realistic demand schedule, then it could combine that schedule with its own supply curve to come up with a graph like the one on the following page.



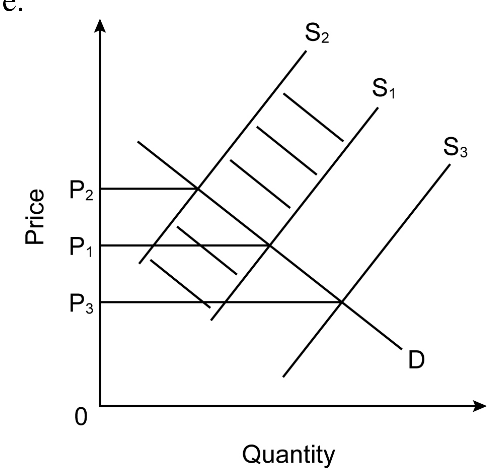
This graph is very helpful to the owners of Second Time Sofa because it tells them how many sofas to produce and what price to charge. At Point A, the demand for plastic sofas exactly equals supply, which is why P_* is called the **equilibrium price** and Q_* is called the **equilibrium quantity**. If Second Time Sofa produces Q_* at a price of P_*, they should be able to sell all that they make. This is very efficient, and efficiency is good for a business.

✯ *Markets and prices* ✯

The preceding graph shows how the interaction between a producer's supply curve and consumers' demand curve can determine an equilibrium price and quantity. Prices, however, are rarely stable over a long period of time. Many factors can affect the supply or demand curves within a market. Here are some of the factors that can affect the price and quantity of a good.

Factors Affecting Price Determination

1. **Cost of inputs/resources.** To make plastic sofas you need raw plastic to mold into the proper shape. Plastic, then, is called an "input," an ingredient in this particular production process. Raw materials, however, are not the only input. Labor and equipment are also considered inputs because, just like plastic, they are used to produce plastic furniture.



If the price of an input rises, it will be more costly to make plastic furniture. The higher price of inputs will be reflected in an increase in the price of plastic furniture. This increase in input prices would cause the supply curve to shift to the left, from S_1 to S_2. This, in turn, would cause the price of plastic furniture to rise from P_1 to P_2.

2. **Changes in technology.** Advances in technology often make it cheaper or easier to produce a good or service. These technological advancements reduce the cost of using inputs, causing a shift in the supply curve to the right, from S_1 to S_3. Price would then go down, from P_1 to P_3.

3. **Changes in prices of other goods.** Suppose the Second Time Sofa Company can switch its manufacturing process and make plastic flamingoes as well as plastic furniture. If demand for plastic flamingoes increases sharply, Second Time Sofa might want to shift its production process and make more plastic flamingoes (a hot selling item) and fewer plastic sofas. The higher price of another good (plastic flamingoes) would lead to a decrease in the supply of another good (plastic sofas). This would move S_1 to the left.

4. **Substitute goods.** A substitute good is just what its name suggests: it is a good that satisfies most of the same needs as the original good. In our example, wooden furniture would be a substitute for plastic furniture. If plastic furniture becomes very expensive, many people might decide to buy the relatively cheaper substitute good (wooden furniture) instead. This would cause demand for plastic furniture to decrease. This would move demand from D_1 to D_2 in the following graph.

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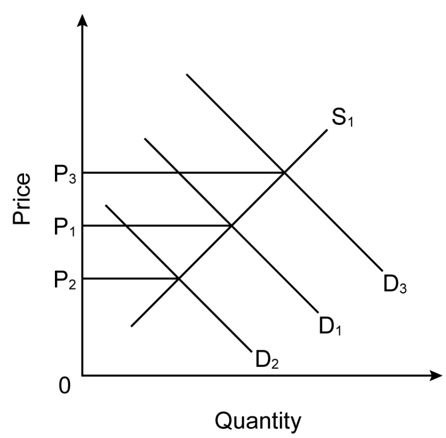


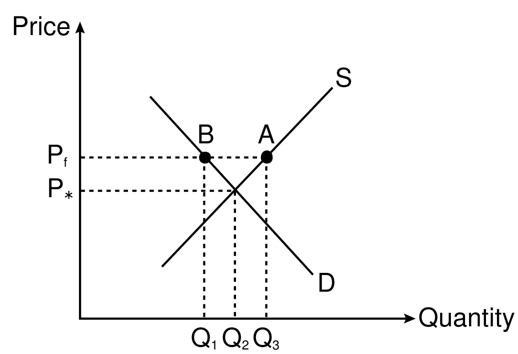
In this scenario, lower demand translates to a lower price, as price goes from P_1 to P_2.

5. **Complementary goods.** Complementary goods tend to be used together, so supply and demand for each good tends to move in unison. For example, a special disinfectant for use on plastic furniture would be a complementary good to plastic sofas. If the demand for plastic sofas increases, then the demand for the complementary disinfectant will increase as well. If the previous graph were covering this disinfectant, then the increased demand could be shown by demand curve D_3. This leads to an increase in price as well, from P_1 to P_3.

6. **Changes in income.** Fluctuations in income often cause a consumer's demand to change. An increase in income often leads consumers to buy more goods. Therefore, an increase in income shifts a demand curve to the right, while a decrease in income shifts a demand curve to the left.

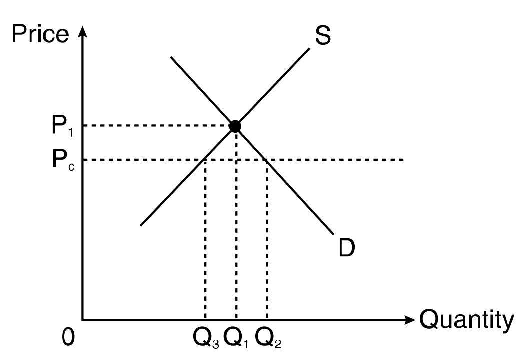
7. **Change in preference.** Sometimes what is considered fashionable or chic determines the demand for a good. Suppose Hank Garza, the nation's leading movie star, mentions that his entire 53-room mansion is filled with plastic furniture. This might cause many of Garza's fans to want to buy plastic furniture, causing demand to rise and shifting the demand curve to the right.

Price can also be affected by outside forces such as government legislation. For political reasons, a government might set a price floor or price ceiling on a good or service. A **price floor** sets a minimum price for which a product can be sold. Sometimes this minimum is never reached, making the price floor irrelevant. However, sometimes a situation arises like the one below:



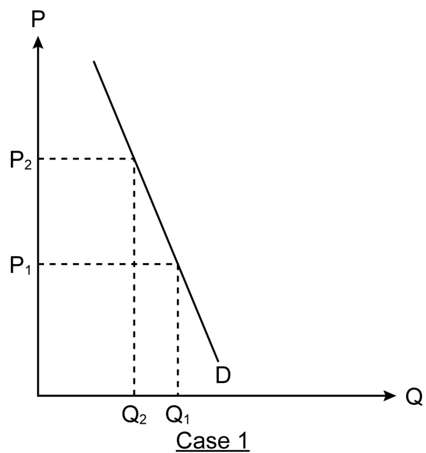
With no price floor, this market would reach equilibrium at price P_* and quantity Q_2. However, the price floor P_f causes producers to supply amount Q_3 (point A), even though demand is just Q_1 (point B). This creates a *surplus* of the good that is equal to the amount $(Q_3 – Q_1)$.

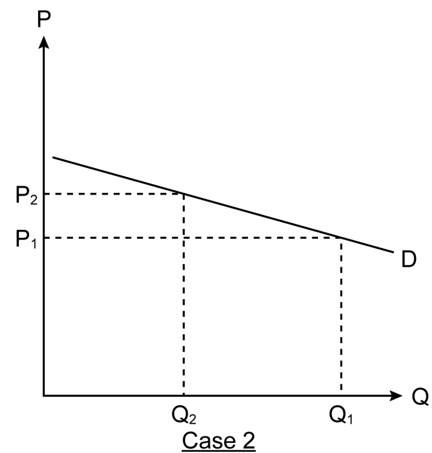
A **price ceiling** is the opposite of a price floor. It creates a *maximum* price at which a good can be sold. This can lead to the problem shown in the graph below:



With no price ceiling, the equilibrium price of this market would be at price P_1 and quantity Q_1. However, the ceiling limits prices to P_c. This leads to a demand of Q_2 units with only Q_3 units being supplied. This creates a *shortage* of good X equal to the amount $(Q_2 – Q_3)$.

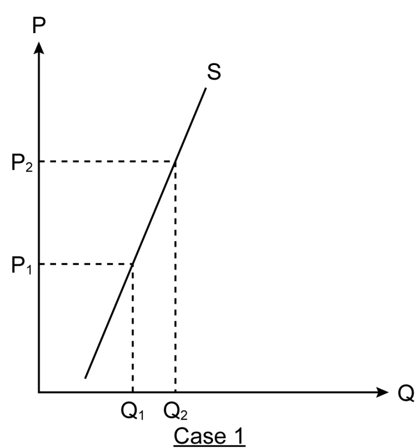
One last note about prices: economists occasionally talk about **price elasticity**. Elasticity refers to the percentage change in quantity divided by the percentage change in price, and it can refer to both supply and demand. The main idea is to track how much a change in price affects a change in quantity, and vice versa. Visually, the following graphs can help show the main cases of elasticity.

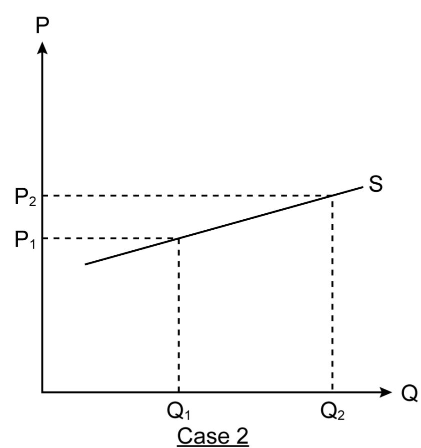




In Case 1, price increases greatly, from P_1 to P_2. However, consumers still desire the good provided, so while quantity demanded is diminished, it is only a small drop from Q_1 to Q_2. As the change in price is *greater* than the change in quantity demanded, the demand curve for this good is said to be **inelastic**.

In contrast, a small change in price in Case 2 leads to a great decrease in the quantity demanded. Since this good is very sensitive to changes in price, this good has a demand curve that is **elastic**.





Elasticity in supply curves works under the same principle as elasticity in demand curves. In Case 1, a larger change in price leads to a smaller change in quantity, so the supply curve in Case 1 is inelastic. In Case 2, a smaller change in price leads to a greater change in quantity, showing that the supply curve in Case 2 is price elastic.

★ *Types of business organizations and market structures* ★

There are many different types of business organizations, and each type has its advantages and disadvantages. The following list provides a brief review of three common types of business organizations.

Three Business Organizations

1. **Sole proprietorship.** A sole proprietorship has a single owner. Usually this means just one person is the owner/proprietor, but occasionally it might be a single family that retains complete ownership. The proprietor controls all the aspects of his or her business, from the factors of production to the finished product. By giving a single person all the important decision-making functions and power, sole proprietorships are often able to adapt business practices quickly.

   Many restaurants are sole proprietorships. The unique menu and décor of such a restaurant can reflect the individual tastes of the owner. Changes in the menu are made by the owner, as are any decisions regarding expansion or capital improvement. If any capital repairs are to be done, the sole proprietor must pay for them, either out of the company's profits or out of the owner's pockets. The fact that all money for improvement or repair must come from the sole proprietor tends to limit the amount of capital that sole proprietorships can put back into a business.

   If the business makes a profit, sole proprietors can use this money as they see fit. Some might put a percentage back into the business for repairs or research, while another might take all the profits and place them directly into his or her personal bank account.

2. **Partnerships.** In a sole proprietorship, a single person takes all the financial risks and reaps all the financial rewards, if any. A partnership divides up the risk and reward among a group of people. While some partnerships are as small as two people, there is no limit to how large a partnership may be.

There are many different kinds of partners, such as silent partners and minority partners. Silent partners put up money and expect a return for their investment, but they have no input in the day-to-day business affairs. Minority partners might have a say in how a business is run, but since they do not own the majority of the company, they must work to have their opinions considered by whoever owns the majority share.

Many law firms operate as partnerships. A group of lawyers can divide the cost of administrative work among themselves, thereby reducing the cost that each of them would accrue by having a personal assistant, copy machine, law library, and so forth. After paying out all the costs, the partners can then divide any profits among themselves equally or in some agreed-upon proportion. Sharing profits leads to less profit per individual. One advantage of a partnership, however, is a reduced chance of bankruptcy or failure due to shared costs. It is also easier for a partnership to accrue investment capital, since each partner can agree to pay a percentage to arrive at the needed amount.

3. **Corporations.** Corporations issue stock, and anyone who owns stock in a company owns a portion of that corporation. Stockholders meet annually to determine a board of directors, and this group of people is responsible for guiding the company in the long run. A president or chief executive officer (CEO)—a person often hired by the board of directors—makes the major short-term business decisions.

   The corporate structure has many advantages. One big advantage is the ease with which corporations are able to raise capital for investment by selling stock. This is a simple way to gain large amounts of money that can be spent on acquisitions or new business ventures. A second advantage is that individual shareholders (people who own the corporation's stock) are not financially responsible for any corporate debt or bankruptcy. If the corporation goes under, the shareholders do not. Of course, in that circumstance all the stock owned by the individuals can become worthless.

Ownership in a company often entitles you to a share of the company's annual profits. Successful corporations often take a percentage of annual profits and issue **dividends**, which are monetary payments to stockholders. The dividend might be 10 cents a share, meaning a stockholder receives 10 cents for every share of the corporation he or she owns.

Regardless of how a company is organized, it must conduct business in a larger market. The structure of this larger market will describe many of its important features, such as

1) number of firms in the market;
2) barriers of entry, or the ease with which companies can enter or exit the market;
3) products created, and whether or not these products are identical, very similar, or different; and
4) level of competition.

There are four basic market structures that you should be prepared to see on the ***Economics/Business/Free Enterprise*** **EOCT**. Each of them is discussed briefly in terms of the features mentioned above.

Market Structures

1. Monopoly

- ✓ Number of firms: one
- ✓ Barriers to entry: very, very high, if not insurmountable
- ✓ Products: usually just one
- ✓ Competition: none

Monopolies are very rare, but they do exist. Some monopolies are created when a firm gains a patent on a certain drug or machine, granting them the exclusive right to make that product. Other times, governments create (and then regulate) monopolies in the interest of efficiency. Your local water company is a good example of a government-sanctioned monopoly. Running a water distribution plant requires a huge amount of capital startup, which makes it expensive for firms to get started (called a "barrier to entry"). Having a single water company is more cost effective than having two duplicate water companies running side by side because two water companies would need to lay separate pipes to individual homes. One water company, on the other hand, can cut costs significantly by running one set of pipes throughout their entire service area.

Monopolies are not always very favorable to the consumer. Since there is no competition, monopolies can decide on a price that maximizes their profits. This makes a monopolist a **price maker**, a company that has control over what it wants to charge people. This often leads to higher prices as well as some shortages, as demand for a good usually exceeds the amount the monopolist is willing to supply.

Think of the water company's monopoly on water service. If you want to take a shower but you don't want to use their services, what are you going to do?

2. Pure (Perfect) Competition

- ✓ Number of firms: unlimited
- ✓ Barriers to entry: none or very little
- ✓ Products: a single product that is similar throughout the market
- ✓ Competition: unlimited

Pure competition (also called perfect competition) is the opposite of monopoly. Here, any firm can get into the market at very little cost. Suppose there was a market for dandelions. Growing dandelions requires little start-up cost. All you need are dandelion seeds, soil, water, and some sunlight. There is little difference between one dandelion and another, so the market has a homogeneous product.

In pure competition, firms will keep entering the market as long as it is profitable. If a single dandelion sells for 5 cents and it costs 3 cents to grow one, then firms will keep entering this profitable market, increasing supply and driving down costs. When dandelions cost 3 cents to grow and sell for 3 cents, the market is in equilibrium and firms will stop entering the market.

Firms in a purely competitive market are **price takers**. They have no control over their own prices, which are determined by the market. In other words, no one will buy an overpriced dandelion. Why should they? A 4-cent dandelion is the same as the 3-cent one, so there is no reason to spend that extra penny.

3. Monopolistic Competition

- ✓ Number of firms: a large number
- ✓ Barriers to entry: low
- ✓ Products: Products are similar but not exactly the same from one firm to another.
- ✓ Competition: Firms must remain aware of their competitor's actions, but they do have some ability to control their own prices.

Monopolistic competition takes its name and its structure from elements of monopoly and pure competition. The key idea to understanding monopolistic competition is that firms sell products that are similar, but not exactly the same. Consider hand soap. Essentially, all hand soaps are alike. Yet firms can create a brand identity that separates their hand soap from their competitor's. This brand identity can be formed through packaging, product support, and especially advertising. If effective, consumers will positively identify a certain brand and purchase it even if another hand soap costs a little less.

The brand loyalty of consumers gives firms some control over their own prices. This control is not great, though. A hand soap that costs 50 dollars more than any other brand will probably not be purchased because most soaps are easily substituted for one another.

4. Oligopoly

- ✓ Number of firms: few, often somewhere between 2–12 firms controlling a majority of the industry
- ✓ Barriers to entry: high
- ✓ Products: varies
- ✓ Competition: All firms are very aware of one another's prices.

Whenever a few firms dominate an industry, you have an oligopoly. While there aren't many firms in any oligopoly, each firm is keenly aware of the other's prices and behavior. If Firm A lowers prices, it often does so expressly to take business from Firm B. Firm B must either respond by lowering prices or take some other action if it does not want to lose market share to Firm A.

Some oligopolies are fiercely competitive, such as the soft drink industry or the airline industry. In other oligopolies, firms work together to set price and quantity. Since these firms effectively control a market, this cooperation creates a kind of monopoly called a cartel. Cartels can create artificially high prices and reduced quantity in order to maximize profits, but they are illegal in the United States and very difficult to maintain elsewhere.

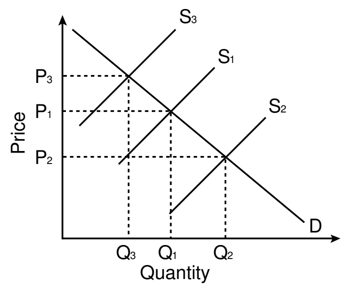
STRATEGY BOX — What's the Theory?

Monopoly and pure competition are exceptionally rare market structures; however, they represent important economic theories. Fragments of monopoly and pure competition can be seen in monopolistic competition and oligopoly, two very common market structures. Understanding the two extreme cases is essential to understanding the two more common market structures.

Sample Questions for Content Domain II

This section has some questions for you to try to answer. After you have completed all the questions, check your answers in the "Answers to the Content Domain II Sample Questions" section that follows. The section will also explain why the other answer choices are incorrect.

1 In the graph below, lines D and S_1 show the demand and supply schedules for the Anaxos Fruit Shake Company in its last month of operation.



Anaxos just upgraded its capital equipment by buying a machine that makes fruit shakes faster and cheaper than the original machine. What effect should this have on the graph?

	Price	Quantity
A	Rises	Rises
B	Drops	Rises
C	Rises	Drops
D	Drops	Drops

2 A corporation MOST often seeks to increase its profit and expand the size of its operations by

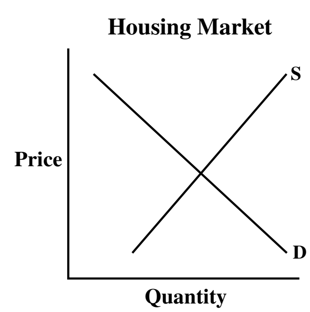
A issuing stock
B joining an oligopoly
C becoming a monopoly
D controlling the money supply

3 Organizers of many high-interest sporting events such as the Super Bowl and the World Series usually set ticket prices lower than the equilibrium price, citing fairness to the public as their reason.

What names do economists give to the resulting set price and disequilibrium situation?

A price ceiling; surplus
B price ceiling; shortage
C price floor; shortage
D price floor; surplus

4 Use the graph to answer the question.



When the income in households increases, what is the likely result?

A The supply curve will shift to the left.
B The supply curve will become vertical.
C The demand curve will shift to the left.
D The demand curve will shift to the right.

Answers to the Content Domain II Sample Questions

1. Answer: **B** Standard: *The laws of supply and demand*
The new machine makes shakes faster and cheaper. This allows the supplier to reduce the price, which eliminates choices **A** and **C**. Since the price is lower, the number produced can increase to meet the demand (on the same curve). This eliminates choice **D**. Therefore the correct answer is choice **B**.

2. Answer: **A** Standard: *Types of businesses and market structures*
Choices **B** and **C** are types of market structures and have no relationship to strategies that a corporation can use to increase its profit or size of operation. A corporation cannot control the money supply, choice **D**. The Federal Reserve controls the money supply. Choice **A** is the correct answer.

3. Answer: **B** Standard: *Markets and prices*
Setting ticket prices below the equilibrium price creates a price *ceiling*. This eliminates choices **C** and **D**. Price ceilings create a shortage of a good, so choice **B** is the correct answer.

4. Answer: **D** Standard: *Markets and prices*
Houses can be considered normal goods, since people tend to increase their consumption of housing (by buying a bigger house) as their income increases. In the short term, this increased demand will lead the demand curve to move to the right, so the answer is choice **D**.

Content Domain III: Macroeconomic Concepts

A LOOK AT CONTENT DOMAIN III

Test questions in this content domain will measure your understanding of the national economy. Your answers to the questions will help show how well you can perform on the following topics:

- Key economic indicators
- The role of the Federal Reserve
- Fiscal policy and the federal government

If you look through the pages of a business newspaper you will see two major types of articles. One set of articles discusses how individual firms are making profits, losing money, or making various economic decisions. These articles deal with microeconomic issues. The second set of articles takes a larger view of the economy and includes issues such as overall economic growth, unemployment rate, inflation, and government policies. These articles cover macroeconomic issues.

As mentioned briefly in the last section, **macroeconomics** means “large economics” and indeed covers large-scale economic issues. While a single company has employees, a nation has a national employment rate. While a single firm produces a set of goods or services, a nation has a Gross Domestic Product (GDP), which is the sum of *all* goods and services produced. As you can see from these two examples, microeconomics and macroeconomics are similar. Both are concerned with employment, goods and services, pricing, and other basic economic topics. The difference between microeconomics and macroeconomics is the scope of their analysis of economic behavior. While microeconomics covers single firms and their relation to particular markets, macroeconomics sums all these individual markets together to discuss the economic health of a nation.

Spotlight on the Topics

✯ Key economic indicators ✯

When you go for a checkup, the doctor looks at several indicators—heart rate, blood pressure, and body temperature—to help determine your basic level of health. The general economic health of a nation can also be judged by looking at several basic economic indicators, which include the Gross Domestic Product, the Consumer Price

Index (CPI), aggregate supply and demand, and the unemployment rate. A quick glance at these factors can often tell you how an economy is doing.

As stated earlier, the GDP is the market value of all goods and services produced by a country over a specific period of time, usually a year. There are different methods of measuring GDP, but the most common is known as the expenditures approach. This approach adds up all the money spent by a country's consumers, firms, and the government, and then factors in net exports. The formula for GDP can then be written as

Gross Domestic Product = Consumer Expenditures + Business Investment + Government Expenditures + Net Exports

GDP = $C + I + G + X_n$

The Net Exports part (X_n) is needed to take into account the amount of money that foreigners spend on our goods and services as well as the amount we spend on foreign goods and services. Foreigners buying our goods should be part of GDP, while money we spend on *foreign* goods is not part of the Gross *Domestic* Product.

Net Exports = (American goods and services bought by foreigners) – (foreign goods and services bought by Americans)

Net Exports = exports – imports

Tracking GDP over a period of years can tell you if a nation's economy is expanding or contracting. If GDP rises by 4% from Year 1 to Year 2, then the economy appears to be doing well. However, **inflation**—a rise in the price level—can distort GDP growth, since a rise in the average price level would increase GDP. If inflation between Year 1 and Year 2 was very high, then GDP might not have grown at all. The higher prices caused by inflation may have caused the 4% shift, but the economy was actually unchanged.

For this reason, GDP is often discussed as real GDP. A base year is used, and a **price index** (called the GDP deflator) is used to measure all future GDP in terms of the base-year prices. Ideally, using base-year prices will eliminate any distortions caused by price changes and allow real GDP to accurately reflect changes in the nation's economy.

The GDP deflator is a price index that is designed to track inflation (and deflation, which is a decrease in the price level). The Consumer Price Index does the same thing. The CPI takes a hypothetical basket of goods and services purchased by a typical household. It then tracks changes in the amount of money required to purchase this same basket of goods and services year after year. For a simplified example, suppose a household's basket of goods consists of milk, paperback books, and plastic sofas.

Quantity in Year 1	Year 1 Price	Cost
300 gallons milk	\$1.20	\$360
50 paperback books	\$5	\$250
2 plastic sofas	\$110	\$220
Total cost of Basket in Base Year		\$830

Quantity in Year 2	Year 2 Price	Cost
300 gallons milk	$1.80	$540
50 paperback books	$5.50	$275
2 plastic sofas	$100	$200
Total cost of Basket in Year 2		$1,015

Note that the quantity of each good purchased does not change from year to year. This is true when creating a CPI. This is not exactly true in the real world, since consumers might substitute another good for a good whose price increased too much. For this reason, CPI sometimes overstates the increase in price levels.

Consider prices in the base year to have a standard value (known as an *index*) of 100. To find the increase in price in year 2, you must divide the Year 2 basket cost by the base year basket cost, and then multiply by 100 to find the index.

CPI = (Year 2 basket cost/base year basket cost) x 100
CPI = (1015/830) x 100
CPI = (1.22)(100)
CPI = 122

Compared to a base-year price of 100, prices in Year 2 were 122, or 22% higher. That's a great deal of inflation. You can see that the change is mostly attributable to the high increase in the cost of milk, whose price increased by 50%.

Using a CPI is one way to calculate the change in price level in an economy, but it is not the only way this can be done. Another method employs the concepts of aggregate supply and aggregate demand. After explaining these two ideas, you will then see how they can be used as economic indicators.

Aggregate supply and demand are macroeconomic ideas that parallel supply and demand in microeconomics. Demand for *all* goods and services within a nation combines to form **aggregate demand**, while the supply of *all* goods and services within a country is its **aggregate supply**. Graphs are often used to illustrate aggregate demand and aggregate supply.

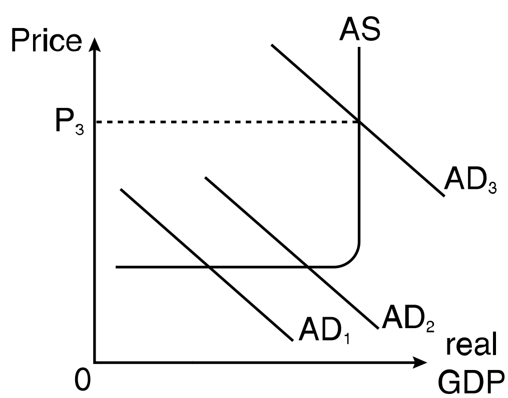
Aggregate demand curves are generally downward sloping. The primary reason for the negative slope is the underlying assumption that the economy can have only one money supply at a time. The aggregate demand curve can increase or decrease depending on certain conditions. One factor that affects the aggregate demand curve is the amount of money that people save. If consumers collectively save less and spend more, the increase in consumer spending would increase aggregate demand, shifting the aggregate demand curve to the right. Higher taxes and lower transfer payments, however, could reduce aggregate demand and shift the demand curve to the left.

Aggregate supply curves are generally upward sloping, but like most supply curves, they can be vertical depending on what assumption you use to construct the curve. The aggregate supply curve can increase or decrease. Most of the increases in aggregate supply are tied to the cost of production. If production costs go down, aggregate supply tends to increase and the supply curve shifts to the right. On the other hand, higher prices for foreign oil, higher interest rates, and lower worker productivity could tend to decrease aggregate supply and the supply curve would shift to the left.

Shifts in aggregate demand and supply can signal changes in the economy. If the aggregate demand curve shifts to the left, then real GDP is falling. This could mean a recession. If aggregate supply shifts to the right, then the economy is producing more goods and services at the same price level. This could signal improvement in production ability brought about by technological and capital improvement.

A **recession** is typically defined as a decrease in total output that lasts for more than two or three consecutive quarters of a year. A **depression** is even worse news for an economy; this event is typically marked by a steep fall in total output coupled with a high unemployment rate, with both these factors lasting for more than a year.

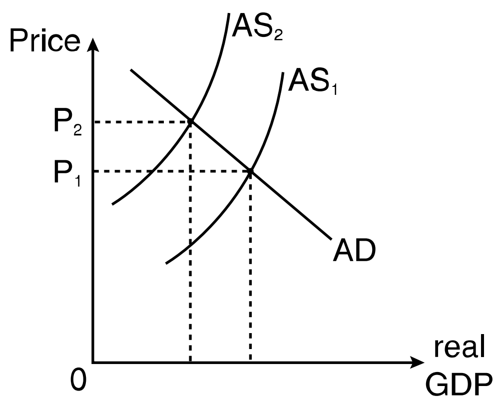
Consider this graph:



Suppose that the economy is in a recession and unemployment is high. However, things start to pick up, and aggregate demand moves from AD_1 to AD_2. Along this section of the aggregate supply curve, real GDP grows and prices don't. This reflects the fact that growth is occurring mainly by eliminating cyclical unemployment. (Cyclical unemployment will be explained in the next section.) During the recession, the nation was not working at full capacity, so it had room to grow without spurring prices.

The situation changes from AD_2 to AD_3. At AD_2, the economy was already close to its highest aggregate supply ability. However, the continued increase in demand "pulls" the price level to P_3, even though it does little to increase real GDP. Like a CPI, this shows that inflation has occurred, but the aggregate demand and supply curves also illustrate that while prices have increased, real GDP has not changed.

The next graph using aggregate demand and supply curves shows how the change in prices can occur without a change in aggregate demand. Consider the economy of an agricultural nation suffering from a years-long drought. Aggregate supply would fall as farms fail and few crops grow. In this event, the nation's aggregate supply falls from AS_1 to AS_2. As you can see, prices rise and real GDP falls. This event is known as **stagflation**, a term combining a ***stag***nant economy with in***flation***.



Along with concepts like aggregate supply and demand, GDP and CPI, economists like to talk about the unemployment rate of a nation, and whether it's rising or falling. However, the idea of unemployment is not as simple as it may first appear. Just because you are not working doesn't mean you are unemployed. Two-day-old babies at a hospital are not considered unemployed, even though they aren't working. Ninety-three-year-old retirees aren't unemployed. College students are not considered unemployed. If a student holds a part-time job, however, they might be considered employed, since the unemployment rate counts part-time and full-time employment as being employed. It is perhaps simplest to define unemployment in the following way:

A person who is able to work and is looking for work but cannot find a job is considered unemployed.

People who have given up looking for employment are called discouraged workers. Even though these workers could eventually find work, the fact that they are not looking for it means that they are not included as part of the unemployment rate.

As you may have guessed, not all unemployment is the same. The following information highlights three major types of unemployment.

Forms of Unemployment

1. Structural. Structural unemployment occurs when you have job skills that no one wants, or when a company wants to hire somebody but can't find anyone who has the necessary requirements. Suppose you worked at a company that made old-fashioned phones with dials. Almost no one wants these phones anymore, so once your company closes there is no place for you to use your old-fashioned-phone-making skills. At the same time, suppose that a local company needs people who can design computer networks, but no one in the community has experience in this area. This type of mismatch is a typical example of structural unemployment.

Learning new skills or moving to a different location can reduce this type of unemployment. For instance, another nation might need old-fashioned dial phones, so you could move there and have a much better chance of finding a job that matches your skills. Or you could stay where you are and take computer-networking classes, for example. This might give you the training needed to apply for a job as a computer-networking technician. In any case, this is considered the most serious type of unemployment because it is usually the most difficult to address. After all, moving somewhere else might not be very easy (especially if you don't have the money to pay for the move) and training for a new job is costly and often takes a long time.

2. Frictional. Unemployed people don't always take the very first job they can find. They often wait to find a job that fits their talents and preferences. While they search for a job that is a good fit, these people are frictionally unemployed. Other people sometimes purposefully decide to leave a job and look for one that better fits their interests and abilities. These job seekers are also considered frictionally unemployed. Overall, frictional unemployment is not entirely bad for an economy because it gives people time to find a job that suits their needs.

3. Cyclical. Most economies encounter cyclical periods of growth and recession. During boom years, unemployment drops dramatically as companies hire new workers to match the higher demand. However, boom periods often overreach, and these are followed by recessions. People who are laid off as a result of a contracting economy are cyclically unemployed.

You might find a question like the following on the EOCT:

Peggy, a recent college graduate, decides to look for a job instead of going to graduate school. If she is unable to find a job that suits her interests right away, what type of unemployment is she MOST likely experiencing?

A structural
B seasonal
C frictional
D cyclical

While Peggy may be experiencing cyclical unemployment because of a downturn in the economy, the question notes that she is trying to match her skills with a job that she wants. Therefore she is experiencing frictional unemployment (choice **C**).

Generally speaking, nations want to keep their unemployment rates low. Unemployed people are often unhappy, not to mention out of income and unable to contribute to the economic well-being of the nation. High rates of unemployment have a negative effect on a society. Nations can offer unemployment benefits to help people while they are unemployed, but steady employment is much more beneficial to the economic wealth and well-being of a society and its members.

One way a government can eliminate unemployment is by creating and paying for government jobs. However, if a government does this too much, then it will be paying out more money (in salaries along with other government spending) than it takes in (through taxes and other means). In this case, the government would be running a **deficit**, spending more money than it takes in. Like a person running up a credit card bill, this deficit is not always harmful, so long as the debt can be repaid or if the nation's economy can handle the interest on the debt easily. Unfortunately, if a government continues to operate at a deficit for many years, these deficits build up to form what is called the **national debt**. This might not seem like a big deal, but continued budget deficits lead to increased interest payments on that national debt. To get more money, the government might have to raise taxes to pay interest on the national debt without providing additional services to the taxpayer.

Changes in aggregate supply, aggregate demand, employment levels, and Gross Domestic Product are closely associated with the five stages of economic activity known as the business cycle: peak, contraction, trough, recovery, and expansion. During the peak stage of the business cycle, aggregate supply and demand, employment levels, and Gross Domestic Product tend to be comparatively high. During the trough stage of the business cycle, they tend to be relatively low.

✯ *The role of the Federal Reserve* ✯

In 1913, Congress created the **Federal Reserve System** to act as the nation's central bank. By creating this "lender of last resort," Congress hoped to insure people that the money they placed into U.S. banks would not disappear due to shoddy business practices.

> Currently, the Federal Reserve System consists of twelve different banks located throughout the United States. Each bank covers a different district and prints its own currency. You can see which bank printed a particular one-dollar bill by looking to the left of Washington's portrait.

There is a difference between a government's fiscal policy and its monetary policy. **Monetary policy** refers to changes in the money supply of a nation in order to influence its economy. **Fiscal policy** refers to expenditures, taxes, and borrowing made by a government in order to influence an economy. Fiscal policy is discussed next, starting on page 48.

The Federal Reserve System (also called the *Fed*) influences monetary policy for two main reasons. It wishes to control inflation (for reasons you have just seen) and it attempts to curb recessions. The Fed achieves these goals by buying and selling government securities in the open market. Imagine that these securities are pieces of paper promising that the government will eventually repay the amount of the security (plus interest). So, if the government wants to reduce the money supply, it can simply sell these securities, essentially trading cash for secure promises. By buying and selling these securities (called open-market operations), the government can immediately affect the money supply and eventually change the interest rate.

For example, suppose the Fed believes that a rapidly growing economy will cause inflation. To deter inflation, the Fed will sell securities at prices low enough to guarantee someone will buy it. This influx of securities causes bond prices to fall and interest rates to rise. Higher interest rates discourage business investment and consumer spending, which reduces real GDP and in turn slows economic growth and curbs inflation.

If the Federal Reserve wanted to stimulate the economy to reduce unemployment, it could *buy* securities on the open market. This would have the opposite effect as the scenario described above.

The Federal Reserve could also manipulate the discount rate, which is the interest rate that the Fed charges on loans it makes to banks. (The Fed is like a banker's bank in many ways.) Altering this rate affects whether banks take loans from the Federal Reserve Bank. For example, a low discount rate encourages banks to borrow money, leading to more loans, which ultimately means more money in the economy.

Finally, the Federal Reserve can influence the money supply by changing the reserve requirement. A lower reserve rate means banks can loan out more money.

Here is what a question for this standard might look like:

The Federal Reserve wants to reduce the nation's money supply. This could be accomplished by doing all of the following EXCEPT

A decreasing the discount rate
B increasing the reserve requirement
C selling securities on the open market
D making banks hold a reserve for all types of deposits

Decreasing the discount rate will encourage banks to borrow money from the Federal Reserve and make loans. This will increase the money supply, so choice **A** is the correct answer. All other choices reduce the nation's money supply.

★ *Fiscal policy and the federal government* ★

In addition to using monetary policy to influence the economy, the federal government can affect the national economy through taxes, expenditures, and borrowing. To see how each of these fiscal policy factors can change GDP, recall the earlier formula:

$$GDP = C + I + G + X_n$$

The first element, taxes, can affect both consumers (C) and business investment (I). Consumers make up more of GDP than business investment, however, so consumer taxes have a greater influence on GDP than taxes relating to business investment.

To boost GDP, the government can reduce taxes. This would encourage most consumers to purchase more because the government is taking a smaller portion of their income. When consumers spend more, producers increase their output and the GDP increases.

Another way to increase GDP would be to increase government spending, G. However, consider what would happen if tax cuts and government spending were to occur at the same time. The new tax deduction would reduce government revenue while the government was simultaneously increasing its spending. This could lead to a budget deficit, where the government spends more than it collects. Over time, the government would have to borrow money in order to make up this deficit, and this could lead to the potential problems of a high national debt.

Sample Questions for Content Domain III

This section contains sample questions for you to try to answer. After you have completed all the questions, check your answers in the “Answers to the Content Domain III Sample Questions” section that follows. The section will also explain why the other answer choices are incorrect.

1 What problem might policymakers be trying to address MOST if they increase funding for training programs covering skills such as computer repair, programming, and networking?

A frictional unemployment
B structural unemployment
C cyclical unemployment
D seasonal unemployment

2 Monetary policies the Federal Reserve can adopt include all of the following EXCEPT

A raising the discount rate
B buying government bonds
C lowering the reserve requirement
D raising personal income tax rates

3 Over a two-year period, the nation of Parthia experiences a steep decline in unemployment rate, a rise in real GDP, and a stabilized price level. Parthia appears to be

A at the start of a recession
B in the middle of a depression
C stagnating economically
D in the middle of a boom period

4 If the unemployment rate is rising and the GDP is falling, the fiscal policy that the federal government should MOST likely follow is

A decreasing taxes
B decreasing spending
C decreasing the money supply
D decreasing the reserve requirement

Answers to the Content Domain III Sample Questions

1. Answer: **B** Standard: *Key Economic Indicators*
The policymakers are attempting to address the question of matching employee skills to available jobs. This is a direct reference to structural unemployment.

2. Answer: **D** Standard: *Role of the Federal Reserve*
Choices **A**, **B**, and **C** are important Federal Reserve monetary policies that directly affect the money supply. Choice **D** is the correct answer because Congress, not the Federal Reserve, establishes income tax rates.

3. Answer: **D** Standard: *Key Economic Indicators*
All three economic indicators are positive. Unemployment is down, the economy is growing, yet price levels have not moved. These good times translate to a boom, choice **D**.

4. Answer: **A** Standard: *Fiscal policy and the federal government*
Choices **C** and **D** are monetary policies, so neither of these options is correct. Fiscal policy is a tool that the government uses to regulate the speed of the economy. When the unemployment rate is rising and the GDP is falling, the government should speed up the economy. Decreasing taxes, choice **A**, would be one possible way to achieve that goal. Decreasing spending, choice **B**, would slow down the already sluggish economy.

Content Domain IV: International Economics

A LOOK AT CONTENT DOMAIN IV

Test questions in this content domain will measure your understanding of the international economy. Your answers to the questions will help show how well you can perform on the following topics:

- Advantages of international trade
- Issues concerning international trade
- Exchange rates

A good way to think of Content Domain IV is "macro-macroeconomics." While microeconomics covers the interaction of a single market and macroeconomics views the larger national picture, international economics views an even larger picture: how the various national economies interact to form a world economy.

The growth of massive multinational corporations is one sign that the world's economy is becoming more interconnected each year. Take a trip to a local grocery store to see this phenomenon. You could find fruit and vegetables from Australia, Asia, and South America sitting next to peaches and tomatoes that may have been grown mere miles away from your home. As national economies become more interconnected, international economic issues such as trade agreements and trade barriers become more important. Content Domain IV covers some of the key topics involving the world economy today.

Spotlight on the Topics

✯ *Advantages of international trade* ✯

International trade allows a country to concentrate on what it does best and trade for what it can't or doesn't produce. In effect, trade allows a country to specialize in certain goods, which leads to more efficient production. An example of this can be found by considering the relationship between Brazil's sugar industry and the United States' auto-making industry. The climate and environment of Brazil make growing sugar cane relatively easy. It would be much harder to grow sugar cane in Detroit, for example, which would require large greenhouses, huge sunlamps, and a labor force skilled in the growth of this tropical plant. It is much easier for Detroit (and by extension the United States) to specialize in manufacturing automobiles and then trade for sugar from Brazil. In fact, when each country specializes in what it does best, each country has more to trade. In other words, as both countries take advantages of their strengths, both countries increase their overall economic well-being.

The terms economists use to describe a country's economic strengths in relation to another country are *absolute advantage* and *comparative advantage*.

When a country has an **absolute advantage** over another country, it simply means that the country can produce more of a good than another country. For example, Brazil has an absolute advantage over the United States in the production of sugar, while the United States has an absolute advantage over Brazil in the production of cars.

While large countries will probably have an absolute advantage in production over smaller countries, when any two countries are producing two goods (like cars and sugar), one country will always have a **comparative advantage** over the other in the production of one of the two goods. Put another way, given two countries that can both produce sugar and cars, one country should specialize in producing cars and one country should specialize in producing sugar so that they can trade.

At first this might seem silly. After all, what if a country is better at producing both sugar and cars? Imagine that the United States isn't trading sugar and cars with a country as large as Brazil. Instead, suppose that the United States is trading with a very small country like Costa Rica. Unlike Brazil, Costa Rica cannot produce as much sugar as the United States, nor can it produce as many cars as the United States. In fact, the United States has an absolute advantage over Costa Rica in the production of both cars *and* sugar. Does this mean that they cannot benefit from trade? The answer is no. They can still benefit from trading with one another because each country has a comparative advantage over the other. In essence, this means that one country is more efficient at producing a good than the other. While Costa Rica might not be able to produce as much sugar as the United States, it does not cost very much to produce the small amount that it can grow. After all, Costa Rica doesn't need greenhouses and expensive equipment to grow sugar cane. So, while the United States could produce more sugar than Costa Rica, it should put more effort into producing cars because the costs are so high to produce sugar in the United States. If Costa Rica and the United States trade, the United States should produce cars (because it has a comparative advantage in the production of cars) and Costa Rica should produce sugar (because it has a comparative advantage in the production of sugar). While the United States could produce more of both, it is more efficient to specialize in the production of cars and trade those extra cars for sugar.

When countries trade with one another, two terms—*balance of trade* and *balance of payments*—are often used to summarize the activity. A **balance of trade** records the values of all goods and services exported from a country minus the value of all goods and services imported from outside the country. This is often referred to as the "trade surplus" (if exports exceed imports) or the "trade deficit."

The **balance of payments** covers *all* the economic transactions of a country; this includes the trade balance, but it also includes other items such as the transfer of capital goods and changes in a country's official reserves.

✭Issues concerning economic trade✭

The previous example illustrates the benefits of international trade. In economic terms, there are clear advantages to both countries. Sometimes, however, policymakers make decisions that are not always based on economic principles. For instance, sometimes a nation's leader might feel that a particular industry is important for national security. Since a war might disrupt trade, a country that is dependent on others for certain goods might be left unprepared. Therefore, a country might try to encourage certain industries to remain functional, even though it might be more efficient to trade for that particular good rather than produce it. This is known as *protectionism* because it protects a country's industries from foreign competition.

If a nation engages in protectionist policies, it usually does so by finding ways to reduce the amount of a foreign good that enters the country. This can be accomplished any number of ways, but the following items explain the more common barriers to trade.

Barriers to Trade

1) Tariff—A tariff is a tax on an imported good. This increases the price of that good, thereby decreasing the quantity demanded. A tariff might help a domestic producer stay in business, even though an imported good would (without the tax) be cheaper for domestic consumers.

2) Quota—A quota is similar to a tariff, but instead of taxing the import, a quota limits the amount of a good that is allowed into the country. That way, while a foreign good may be cheaper, domestic consumers can only buy so much of it before they have to buy comparable domestic goods instead.

3) Embargo—An embargo on a particular good is like a quota set at zero; a government completely prohibits the import of that item. While there are embargoes on particular goods and services, governments also place trade embargoes on nations that they disagree with, politically or otherwise. These embargoes prohibit trade in goods or services with businesses from the embargoed nation.

4) Standards—Governments employ standards to ensure the safety of imported goods and to make sure that these goods comply with local laws. For example, the use of lead in paint is prohibited in the United States due to the toxic effects associated with ingestion of this lead-based paint. However, other nations have no such law or prohibition. Therefore, the U.S. government has various agencies to ensure that imported goods adhere to the national standard that prohibits use of lead in paint. To comply with this standard, foreign firms may have to incur higher production costs in order to use paint with no lead.

5) Subsidy—With a subsidy, the government makes payments to a local supplier to reduce the production costs of the supplier. Lowered production costs should allow the local supplier to charge less for his or her goods and services, thereby making the local supplier more competitive in comparison to foreign firms offering the same good or service.

While barriers to trade can help a sector of a nation's economy, there are costs associated with them. In almost all cases, placing trade barriers increases price, and this increased cost is paid for by a country's buyers, its citizens. So while a tariff on pineapples will make a nation's pineapple growers happy, this tariff will result in higher pineapple prices for all of that nation's citizens. In addition, over time, keeping trade barriers in place can actually harm a national economy, making it inefficient and unresponsive to long-term economic changes. Consider, for instance, a nation with a booming banking sector and a high tariff on imported pineapples. With this tariff intact, many people will stay in the pineapple business simply because the price is being kept above its free-market price. However, if there was no tariff on imported pineapples, some pineapple growers would find themselves unable to compete and be forced out of that business. This would be painful in the short term, but if they switched businesses and became Pineapple Savings and Loan (a new bank in the booming sector of the economy), they could find themselves better off as bankers in the long run than they would have been by staying pineapple farmers.

Without trade barriers, unprotected businesses are forced to remain challenged by all foreign competitors. Although this can occasionally be painful for individual businesses, in the long run a nation's economy remains healthier because the increased competition fosters innovation and efficiency.

Since barriers to trade increase prices, many nations often try to reduce these barriers with their economic partners. In theory, this will lead to lower prices for buyers (citizens) within the trading nations, as well as firms that are more competitive on the international market (because of increased competition). The North American Free Trade Agreement, NAFTA, is one such trading block; its goal is to eliminate barriers to trade—most notably tariffs—between Canada, Mexico, and the United States. Another such trading block, the European Union (EU), is fashioned with the similar goal of reducing barriers to trade between its member nations, which should then reduce prices throughout the trading block while making firms more competitive. Whether NAFTA or the EU has actually improved the economies of their nation-state members is the subject of a good deal of debate.

✯ Exchange rates ✯

Tariffs, quotas, and other trade agreements are international trade issues that entire countries must address. For individuals, the exchange rate is one of the most important international trade issues. The **exchange rate** measures the price of one nation's currency in terms of another nation's currency.

Consider the case of two grocery stores: Americo-store and Groceria Mexicana. Americo-store is in Brownsville, Texas, while Groceria Mexicana is right across the border in Matamoros, Mexico. Suppose a bank on the U.S. side of the border—perhaps the Apple Saving and Loan bank—published the following exchange rate table.

U.S. Dollar, end of Year 1

	One U.S. dollar	**in U.S. dollars**
British pound	0.49	2.06
Danish krone	5.17	0.19
Euro	0.69	1.44
Japanese yen	114.69	0.0087
Mexican peso	10.71	0.093
Swiss franc	1.17	0.86
Thai baht	31.7	0.03

This shows that the exchange rate between the U.S. dollar and the Mexican peso is 1:10.71, meaning one U.S. dollar translates to 10.71 Mexican pesos. The second column, "in U.S. dollars," shows how much would be needed to purchase one Mexican peso. This rate is 1:0.093, meaning 9 American cents— or 9 and 3/10 American cents, to be precise—translates to one Mexican peso.

Exchange rates move up and down to reflect the value of one country's currency in comparison to another. If there is a great demand for U.S. products, people need more U.S. dollars to purchase these goods. This drives the demand for U.S. dollars up, causing the dollar to **appreciate**, or strengthen. At the same time, the peso has **depreciated**, or weakened, relative to the dollar. Suppose the following exchange rate is published one year after the previous one (see next page):

U.S. Dollar, end of Year 2

	One U.S. dollar	in U.S. dollars
British pound	0.52	1.92
Danish krone	4.83	0.21
Euro	0.67	1.49
Japanese yen	121.3	0.0082
Mexican peso	15.02	0.067
Swiss franc	1.06	0.94
Thai baht	36.8	0.027

The new exchange rate is 1:15.02, meaning the value of an American dollar now translates to 15.02 Mexican pesos. This leads to the big question: Which grocery store benefits from the new exchange rate?

If you answered Groceria Mexicana, you would be correct. The appreciated dollar makes U.S. goods more expensive relative to their Mexican counterparts. The dollar can purchase more, but it also raises the price of U.S. goods. Some U.S. customers might take advantage of the stronger dollar and cross the border to shop at Groceria Mexicana, since their dollars are now worth 15.02 pesos instead of 10.71. Similarly, anyone converting pesos to dollars needs to pay 15.02 pesos for one dollar (rather than 10.71). In this case, when a person is converting dollars to pesos, his or her purchasing power has increased due to the new exchange rate. When a person is converting pesos to dollars, however, the stronger dollar lowers his or her purchasing power. Overall, business at Groceria Mexicana would increase while the Americo-store's business would decline as some customers cross the border to take advantage of their strengthened currency.

A question for this standard might look like this:

Over the course of one year, the Japanese yen depreciates relative to the British pound. Who would benefit MOST from this occurrence?

A British consumers of British goods
B British consumers of Japanese goods
C Japanese consumers of Japanese goods
D Japanese consumers of British goods

The yen has depreciated, meaning that one British pound now purchases more yen than it did previously. This would help British consumers of Japanese goods, since they now have additional purchasing power in Japanese markets due to the stronger pound. The answer is choice **B**.

Sample Questions for Content Domain IV

This section contains sample questions for you to try to answer. After you have completed all the questions, check your answers in the "Answers to the Content Domain IV Sample Questions" section that follows. The section will also explain why the other answer choices are incorrect.

1 A tariff placed on foreign steel imports represents

A a barrier to trade
B a balance of payment deficit
C a subsidy to domestic producers
D an increase in domestic production

2 Those in favor of protectionist trade policies would MOST likely

A support a reduction in tariffs
B call for fewer import restrictions
C cite the need to preserve domestic industries
D believe that restrictions harm consumers

3 In the country of Balmoria, it takes 9 hours of labor to harvest a bushel of wheat and 6 hours of labor to build a wooden bookcase. In the nearby country of Dashmund, it takes 8 hours of labor to harvest a bushel of wheat and 7 hours to build a wooden bookcase. In terms of labor on these identical goods, which statement describes the situation accurately?

A Dashmund has an absolute advantage in both wheat and bookcases.
B Balmoria has an absolute advantage in both wheat and bookcases.
C Dashmund has a comparative advantage in wheat harvesting.
D Balmoria has a comparative advantage in wheat harvesting.

4 Use this exchange rate table to answer the question.

U.S. Dollar, end of Year 1

	One U.S. dollar	in U.S. dollars
British pound	0.49	2.06
Danish krone	5.17	0.19
Euro	0.69	1.44
Japanese yen	114.69	0.0087
Mexican peso	10.71	0.093
Swiss franc	1.17	0.86
Thai baht	31.7	0.03

Which monetary amount is the closest equivalent to having two U.S. dollars?

A 64 Thai baht
B 57 Japanese yen
C 0.7 Euro
D 0.25 British pound

Answers to the Content Domain IV Sample Questions

1. Answer: **A** Standard: *Issues concerning international trade*
Tariffs are taxes on imports. They often have the effect of helping domestic industries, so they *might* boost domestic production. First and foremost, though, they are a barrier to trade, since the added tax makes trading with that country less profitable. The answer is choice **A**.

2. Answer: **C** Standard: *Issues concerning international trade*
Tariffs can help protect domestic industries by discouraging trade with other nations. Domestic workers who could be unemployed by lower-costing imports are now able to retain employment, and "infant" industries are protected. Therefore, choice **C** is the answer. However, the domestic consumers will face higher prices because of the tariff, and the tariff would also patch over the fact that their domestic business is unable to compete in a world market.

3. Answer: **C** Standard: *Advantages of international trade*
To answer this question, take each good and compare the labor required to produce it in both countries. For a bushel of wheat, Dashmund requires 8 hours of labor to Balmoria's 9, so Dashmund has the absolute advantage there. This means choice **B** is incorrect. For bookcases, Dashmund requires 7 hours of labor to Balmoria's 6, so Balmoria has the absolute advantage when it comes to bookcases. This eliminates choice **A** as an answer, leaving only choices **C** and **D**. Since Dashmund's 8 hours of labor for wheat harvesting is lower than Balmoria's 9 hours, Dashmund has the comparative advantage. Choice **C** is the answer.

4. Answer: **A** Standard: *Exchange rates*
The first column shows how much one U.S. dollar is worth in the various currencies. Looking down the column, you can see one U.S. dollar is worth about 32 Thai baht, meaning two dollars would be twice as much, or 64 baht.

Content Domain V: Personal Finance Economics

A LOOK AT CONTENT DOMAIN V

Test questions in this content domain will measure your understanding of economic decisions that affect most individuals in their everyday lives. Your answers to the questions will help show how well you can perform on the following topics:

- Personal spending and saving
- Role of financial institutions
- How monetary and policy issues affect individuals
- Costs and benefits of credit
- Protecting against financial loss
- Workers in the marketplace

This content domain deals with economic issues that regularly affect an individual. In other words, while knowing how to calculate the GDP of a nation can be helpful information, an understanding of the advantages and disadvantages of using a credit card or borrowing money from a bank is more relevant to daily life. This doesn't mean the other content domains, which are more theoretical in nature than this section, are not important. As you will see, the better you understand microeconomic, macroeconomic, and international economic issues, the better you will be at making informed economic decisions that pertain directly to you.

Spotlight on the Topics

✯ Personal spending and saving ✯

Suppose Gordon James, an automotive engineer, has recently discovered a new technique that has improved safety and lowered the cost of manufacturing. For his hard work and ingenuity he receives a $10,000 bonus from the company for which he works.

At first, Gordon isn't certain what he wants to do with this money. He narrows his choices down to three options:

1) keep the money in a bank account in case of an emergency
2) give the money to his friend, a restaurant owner, in exchange for part ownership of the restaurant
3) use the money to enroll in a class on new techniques in hybrid automotive design

If Gordon opts for choice 1, he will be placing the money in savings. **Savings** are monetary deposits secured for a later, undetermined use. Money in savings might eventually be spent on groceries, a vacation, or some other form of consumption. In contrast, choice 2 would be considered an **investment**, since the money is used here with the expectation of some future return or benefit. By investing the money in the restaurant, Gordon takes the risk that the restaurant will be profitable and earn him a share of future profits. There is no guaranteed rate of return (like there is with a savings account), but there is a possibility that the restaurant will be highly profitable, earning Gordon a high rate of return for his $10,000 investment.

Many Americans are in the same position as Gordon when it comes to deciding between savings and investment. Many people try to do a little of both, keeping some money in the bank while buying stock or land as a form of investment. Of course, Gordon has a third option, taking the course to learn new techniques. If he does this, he will be investing in human capital, since the knowledge he gains through the class should improve his skills.

> Savings ACCOUNTS in banks often earn the holder a small rate of interest. Banks then use the money deposited in ways that will be covered later in this section.

Ultimately, what a person decides to do with his or her money is his or her choice, but the federal government, as well as other agencies, attempts to influence people's spending and saving choices in a variety of ways. This can easily be seen in the national tax code, which is complicated because the government is using tax laws to influence people's decision-making processes. For example, the government wants a larger pool of educated workers (they have higher income potential) and it would prefer fewer chronic smokers (who get ill more often). To achieve this, the government offers a variety of tax breaks for education—such as tax-free savings accounts—to encourage people to spend money on education, and at the same time the government sets a high tax rate on cigarettes to discourage people from smoking. The final choice is still the individual's, but in this example the government has attempted to skew the decision toward education and away from smoking.

✯ *Role of financial institutions* ✯

Hearing the words "financial institution" will make most people think of *banks*, easily the most recognizable and common financial institution. However, it is by no means the only kind of place to keep earnings, as the following list shows.

Types of Financial Institutions

1) Bank—For most consumers, banks provide a safe means to store earnings. Typically, banks also offer direct deposit (where a person's paycheck goes directly into his or her account), check-writing services, debit and credit cards, loans of all sorts (personal, home equity, business), and a host of other services. In its basic form, banks take the money deposited in them and loan out a portion of these savings to people who apply for them.

By charging interest on the loans, banks make money. The more money on deposit, the more loans they can make, which is why some banks offer very generous checking policies. The interest on the loans is always more than the interest paid out to depositors for their money; if it wasn't, a bank would go out of business very quickly.

2) Credit Union—A credit union provides services similar to a bank; the main difference is that a credit union only provides these services to its members, and these members own and control the institution. In theory, then, credit unions should be able to have higher saving rates for deposits and also lower interest rates on loans, because these two items would be helpful to its owners (the depositors and people taking out loans).

3) Savings and Loan—This organization is like a focused bank; instead of providing a wealth of services, a savings and loan takes deposits and concentrates on the two areas in its name: savings and (mortgage) loans. People who put money into a savings and loan know that it will not be as easily accessible as money placed in a commercial bank, but this should be offset by a higher savings rate than a typical commercial bank. Also, by focusing on a single aspect of the loan market (mortgage loans), a savings and loan can gain experience and expertise in this area and may be able to handle mortgage loans that other financial institutions would be unable (or unwilling) to take on.

4) Payday Loan Company—Suppose you need $50 on Wednesday but won't get paid by your job until Friday. To solve this temporary problem, a payday company will give out small loans in return for a portion of the upcoming paycheck. This means the person will get $50 on Wednesday, but come Friday, $55 of his or her paycheck will go to the payday loan company.

> Another form of investment is the **mutual fund,** which is usually a collection of various investments (stocks, bonds, and other forms of securities). The goal of a fund is to have many people pool their earnings, thereby giving these individual investors much greater purchasing power as a unit. The accrued earnings are then used to buy a range of investment options, and any earnings made by the fund are distributed among the individuals.

Keeping money in a financial institution, with a guaranteed rate of interest, is all that some people desire. However, other people like to take their earnings and attempt to increase their wealth through an investment. To accomplish this, they might buy government securities (as discussed on page 47). These are quite safe, but they do not offer a very high return. Other types of investments are also known as securities. For example, **bonds** are regularly offered by governments and other entities (companies); by investing in them, the investor gets a promise that his or her investment will be repaid with interest.

People who believe in the business prospects of a certain corporation can buy **stocks** in that company. In return for partial ownership of the company, the investor gives that corporation his or her money to spend. If the company does well, its stock price usually rises, which translates to an increase in the wealth of its stockholders. Some companies also pay out dividends to their stockholders, which are a portion of their profit.

Whatever the investment, in finance, with risk comes reward. People willing to invest money in riskier ventures—such as young companies in emerging fields—run a high chance of losing their entire investment, but they also stand to make the most of their investment if the venture is successful.

Think of this in regard to the following question:

A man has $100 to invest and hopes to receive 10 times the amount back ($1,000) by the end of 5 years. This could be BEST accomplished by

A placing the money in a savings and loan account
B depositing the money in a commercial bank account
C purchasing $100 worth of stock in a start-up company
D buying $50 worth of bonds and investing $50 in a mutual fund

This man is ambitious; not only does he want an incredible rate of return (tenfold) but he wants it in a short amount of time. Therefore, he needs the riskiest investment option possible, which is choice **C**. All other options would earn some money, but not as much or as fast.

✯ *How monetary and policy issues affect individuals* ✯

While the concept of inflation was described starting on page 41, what wasn't covered was how inflation affects an individual. The simplest answer to this question is that inflation generally harms an individual because wages tend to rise more slowly than prices. There are a variety of factors involved. Over time, workers will demand more money to keep up with having to pay higher prices, but in the short run inflation causes an increase in prices. If this increase is not matched by a similar increase in wages, workers will find that their paycheck can no longer purchase all the items they once purchased. This can easily be seen by reproducing the two baskets of goods used to discuss the Consumer Price Index.

Quantity in Year 1	Year 1 Price	Cost
300 gallons milk	$1.20	$360
50 paperback books	$5	$250
2 plastic sofas	$110	$220
Total cost of Basket in Base Year		$830

Quantity in Year 2	Year 2 Price	Cost
300 gallons milk	$1.80	$540
50 paperback books	$5.50	$275
2 plastic sofas	$100	$200
Total cost of Basket in Year 2		$1015

If a person's paycheck is $1000 he or she could buy the entire basket in Year 1 and still have $170 left over. In Year 2 he or she would be unable to buy the entire basket. Economists would say that **real wages** had dropped because, although the monetary amount is the same for both years ($1,000), their purchasing power declined.

When prices rise faster than wages, it stands to reason that firms would benefit from the effects of inflation. In the short term this is true. A firm would be able to charge higher prices for its goods or services but still pay its workers the same amount, creating a higher profit. However, in the long term wages would typically catch up to prices, so this profit would be reduced. Furthermore, inflation can increase fears of price uncertainty and worries about economic health. These trends tend to dampen investor willingness. This means that although firms might be briefly helped by inflation, they will also have a harder time raising capital from investors.

Regardless of what wages are and whether or not inflation is occurring, the government collects taxes. As mentioned earlier, the federal tax code is complicated, but it can be broadly described as a progressive tax, as discussed below.

Types of Income Taxes

1. Progressive tax—With a progressive tax system, the tax rate increases as income increases, meaning the wealthy pay a higher percentage of their earnings than people less financially well-off. For example, a progressive tax might have a tax rate of 1% for every $10,000 earned annually, with a maximum tax rate of 50%. This system would lead to the following:

Annual Income	Progressive Tax Rate	Amount pay in taxes
$10,000	1%	(1%) ($10,000) = $100
$30,000	3%	(3%) ($30,000) = $900
$200,000	20%	(20%) ($200,000) = $40,000
$500,000	50%	(50%) ($500,000) = $250,000
$700,000	50%	(50%) ($700,000) = $350,000

As you can see, people earning $30,000, or three times as much as those earning $10,000, would have to pay *nine* times the amount in taxes ($900 to $100). Those earning $200,000, more than six times as much as those earning $30,000, would have to pay more than *forty-four* times as much in taxes. While this may seem excessive, the rationale is that a progressive tax takes more money from those who can afford it.

2. Regressive tax— With a regressive tax, the tax rate decreases as income increases. Consider a tax that imposes a flat rate of $1,000 annually regardless of income. For someone earning only $3,000 a year, this tax would be huge, accounting for one-third of all earnings. To someone earning $50,000 a year, the tax rate is not as large, accounting for only 2% of annual income.

3. Proportional tax—Also known as a flat tax, a proportional tax does not change with respect to changes in income. If the proportional tax rate is 15%, then everyone pays 15%, regardless of whether he or she makes $10,000 or $570,000.

Those are the three main forms of income taxes, but they are by no means the only kind of taxes. For instance, a sales tax is a consumption tax levied on people when they make certain kinds of purchases, such as buying a book or joining a gym. Not all goods and services are subject to a sales tax; doctor visits, for example, are not taxed.

Like the different types of income taxes, a change to the sales tax affects different income groups in different ways. Since all consumers purchase essential goods like food, a high sales tax on food would affect poor people more than wealthy people because both groups will be paying the same tax rate for the same good. This is one reason why food is often not subject to a sales tax. However, food served at a restaurant typically is subject to a sales tax, since eating out is not considered a necessity.

★*Costs and benefits of credit*★

Remember those financial institutions from earlier, and how they wanted to loan money? If you want to secure a loan from them, your credit rating must be good. **Credit worthiness** is a measure of a variety of factors, but it boils down to an attempt to determine whether you'll be able to pay back the loan properly. This doesn't mean that someone who makes $4,000,000 annually will definitely pay off a $2,000 loan; it just means that it is *very likely* that he or she would be able to pay off the loan. Annual earned income is a major factor in determining credit worthiness; if you make a lot of money it stands to reason that you would be able to use some of that money to pay off debts. However, amount of current debt is another big factor in a credit report. Making $4,000,000 isn't that great if you already owe $5,000,000. Another factor that affects a credit report is the timeliness of repaying previous loans. If you took eight years to pay off a small debt, banks will be reluctant to loan you more money.

Many people sign up for their first credit card to start building up their credit. By making small purchases and then paying the entire amount each month, people can show that they are able to take small loans and then repay them promptly. However, this does not always work out as planned. People sometimes run up charges to their credit cards impulsively and then find they are unable to pay the entire amount owed. If they can't do this, they can keep the credit card by paying a smaller amount of the total owed, but any unpaid amount will be subject to the interest rate associated with that credit card.

The interest rate is the percentage amount of payment by borrowers to the lender. An annual interest rate of 5% on a $100 loan would translate to an interest payment of $5 each year, since

5% = 0.05
5%($100) = (0.05)(100) = $5

After one year, the person would now owe $105.

With a **simple** interest rate, the interest is determined annually with the *original* loan amount. In the second year, the interest would again be $5, so a person would owe $105 + $5 = $110 after the second year. With a **compound** interest rate, future interest is determined with the *existing* amount owed. In the second year of a compound debt, the interest would be

5% (105) =
(0.05)(105) = $5.25
$105 + $5.25 = $110.25

so the compound interest rate is greater than the simple interest rate. The current difference is only a quarter ($110 versus $110.25), but compound interest can really build up over time.

(Calculations shown for demonstration purposes only.)

Although credit cards are convenient, consumers pay for this convenience with high interest rates. Interest rates around 18% are not uncommon, and the rates are usually variable, meaning they can rise fairly suddenly. Interest on a credit card typically accrues on a monthly basis.

Overall, taking out a loan or using some other form of credit can be very helpful in a variety of instances. People who take out a mortgage to buy a house must pay interest over a long period of time, but that time is spent under the roof of *their* house (which is often accruing in value). In every case, a consumer must balance the benefit of having access to additional money with the cost associated with the interest and the possible financial difficulties than can result from defaulting on a loan.

✯ *Protecting against financial loss* ✯

Let’s say a person decides to take out a mortgage and buy a house. The mortgage payments could last from 15 to 30 years, and the person would be responsible for paying the mortgage lender even if the house were destroyed by a natural disaster the day after finalizing the loan. To guard against this possibility, it is clear that this new homeowner needs insurance.

In general, all insurance policies allow a person or business to pay a relatively small amount of money (a **premium**) in the present to purchase **asset protection** against the possibility of a future financial loss caused by an unforeseen event. Assets that can be protected range from one’s home to one’s health. Most insurance policies include a **deductible** that stipulates the amount of money the insured must pay when a claim is filed with the insurance company. Purchasing insurance involves **shared liability** between the insurer and the insured. This means that the insurance company assumes a pre-determined amount of financial liability for a claim that the insured might file because the insured has paid premiums for the financial protection.

Automobile insurance provides an example of this. Many states require all car owners to carry liability insurance. This means that if the driver of that car has an accident and it is that driver’s fault, then he or she is liable for all damages caused. Considering cars cost thousands of dollars and hospital bills can cost even more, liability insurance helps a person avoid potentially owing a significant amount of money for a single accident.

While many people are satisfied carrying only liability insurance, others want additional protection. People who want additional protection would pay more money in the present to have greater protection later. For instance, liability pays only for damage caused to other people’s property, but the insured can carry auto insurance that pays for damage to the insurer’s car as well. There is also insurance against auto theft as well as insurance that provides a rental car while an insurer’s car is being repaired. Each additional piece of coverage comes with an increase in the premium, so individuals need to decide what level of coverage works best for them.

In addition to the many kinds of house and auto insurance policies available, there are also many kinds of insurance policies for people, including health, disability, and life insurance. Health insurance is designed to pay for medical costs; disability insurance provides people with income in case they become injured or are unable to work at a job; and life insurance provides a monetary payment when the insured person dies.

Consider the following question:

While delivering the mail, a postman gets struck in the arm by a passing car. An ambulance takes him to the hospital, and after x-rays and other tests are done, the doctor states that no bones were broken and no permanent damage was done.

Which of the following types of insurance would be MOST beneficial for the postman as a result of this accident?

A auto
B disability
C health
D life

If the driver of the car had auto insurance, this insurance might pay for the hospital bills, but the question asks about insurance *for the postman*, so choice **A** is not correct. The postman was not fatally injured, so life insurance is not going to be used. If bones had been broken or other injuries suffered that would keep the postman from returning to work, then choice **B**, disability, might be an option. However, the doctor pronounced the postman fine, so all that remains are the costs of medical bills. These will be covered by health insurance, choice **C**.

✯ *Workers in the marketplace* ✯

Societies are constantly changing, and their economies—and marketplace demands—change as well. Thirty years ago, people who excelled at selling typewriters could probably have demanded a high salary for their work. Today, this expertise is no longer in demand, so work would be hard to get and at a much lower wage than it once was.

In general, the two factors that can boost the wages of a particular job are demand for that service and the training requirements needed for the job. High demand raises wages because it allows the limited supply of labor force in that area to ask for more money and get it. Additional training (educational or job specific) also raises wages because there is an opportunity cost associated with this unpaid training, and this opportunity cost must be offset with a higher wage. Otherwise, no one will undertake the job.

Sample Questions for Content Domain V

This section contains sample questions for you to try to answer. After you have completed all the questions, check your answers in the “Answers to the Content Domain V Sample Questions” section that follows. The section will give also explain why the other answer choices are incorrect.

1 On which of the following do people pay a regressive tax?

A their earned income
B interest earned on their savings accounts
C stocks purchased for investments
D goods purchased for their personal use

2 A good example of the effect of education on income would be that

A employees who learn to perform high-risk jobs always get paid more
B workers who learn to make high-demand products are well paid
C only job applicants with high school diplomas get job interviews
D people with college degrees usually earn more than those with less education

3 A woman is considering purchasing a new lawn mower that costs $120. While employed, the woman does not currently have enough money in her account to pay for this item. Which of the following financial institutions would be the MOST likely to help her buy the lawn mower?

A payday loan company
B credit union
C savings and loan
D commercial bank

4 Which factor MOST often has the greatest role in determining the amount of money that workers earn during their careers?

A their credit worthiness
B their education level
C the location of the business for which they work
D the size of the business for which they work

Answers to the Content Domain V Sample Questions

1. Answer: **D** Standard: *Types of Income Taxes*
Choices **A** and **B** involve progressive taxation. People only pay taxes on dividends that stocks pay (choice **C**), not the stock itself. People often pay a sales tax on goods purchased for their personal use. A sales tax is a regressive tax, so choice **D** is the correct answer.

2. Answer: **D** Standard: *Workers in the Marketplace*
Choice **A** is usually true, but it is not "always" true, so the use of the word *always* makes this an incorrect choice. Choice **B** sounds good at first, but high-demand products are not always very expensive, so workers might not get paid much to produce low-cost items. The use of the word *only* makes choice **C** untrue, leaving only choice **D**. Choice **D** accurately reflects the fact that additional learning increases human capital and comes with an opportunity cost that is usually offset by a higher wage.

3. Answer: **A** Standard: *Types of Financial Institutions*
The amount of money in question is rather small compared to a mortgage loan or business loan. Savings and loan companies do not specialize in this type of loan, and the question does not mention whether the woman is a member of any credit union. However, it does state that she is employed, which means she could probably use her upcoming paycheck to secure a small loan from a payday loan company (choice **A**).

4. Answer: **B** Standard: *Workers in the Marketplace*
It is possible that choices **A, C**, and **D** have a role in determining workers' income levels, but choice **B** most often has the greatest role and is the correct answer.

Appendix A
EOCT Sample Overall Study Plan Sheet

Here is a sample of what an OVERALL study plan might look like. You can use the Blank Overall Study Plan Sheet in Appendix B or create your own.

Materials/Resources I May Need When I Study:
(You can look back at page 2 for ideas.)

1. *This study guide*
2. *Pens*
3. *Highlighter*
4. *Notebook*
5. *Dictionary*
6. *Economics textbook*

Possible Study Locations:

- First Choice: *The library*
- Second Choice: *My room*
- Third Choice: *My mom's office*

Overall Study Goals:

1. *Read and work through the entire study guide*
2. *Answer the sample questions and study the answers*
3. *Do additional reading in an economics textbook*

Number of Weeks I Will Study: *6 weeks*

Number of Days a Week I Will Study: *5 days a week*

Best Study Times for Me:

- Weekdays: *7:00 p.m. – 9:00 p.m.*
- Saturday: *9:00 a.m. – 11:00 a.m.*
- Sunday: *2:00 p.m. – 4:00 p.m.*

Appendix B
Blank Overall Study Plan Sheet

Materials/Resources I May Need When I Study:
(You can look back at page 2 for ideas.)

1. ________________________________
2. ________________________________
3. ________________________________
4. ________________________________
5. ________________________________
6. ________________________________

Possible Study Locations:

- First Choice: ______________________________
- Second Choice ______________________________
- Third Choice ______________________________

Overall Study Goals:

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________

Number of Weeks I Will Study: ___________________

Number of Days a Week I Will Study: ___________________

Best Study Times for Me: ___________________

- Weekdays: ____________________
- Saturday: ____________________
- Sunday: ____________________

Appendix C
EOCT Sample Daily Study Plan Sheet

Here is a sample of what a DAILY study plan might look like. You can use the Blank Daily Study Plan Sheet in Appendix D or create your own.

Materials I May Need Today:

1. *Study Guide*
2. *Pen*
3. *Notebook*

Today's Study Location: *The desk in my room*

Study Time Today: *From 7:00 p.m. to 8:00 p.m. with a short break at 7:30 p.m.*
(Be sure to consider how long you can actively study in one sitting. Can you sit for 20 minutes? 30 minutes? An hour? If you say you will study for 3 hours but get restless after 40 minutes, anything beyond 40 minutes may not be productive—you will most likely fidget and daydream your time away. "Doing time" at your desk doesn't count as real studying.)

If I start to get tired or lose focus today, I will *do some sit-ups.*

Today's Study Goals and Accomplishments: (Be specific. Include things such as number of pages, sections, or standards. The more specific you are, the better you will be able to tell if you reached your goals. Keep it REALISTIC. You will retain more if you study small "chunks" or blocks of material at a time.)

Study Task	*Completed*	*Needs more work*	*Needs more information*
1. Review what I learned last time	X		
2. Study the first standard in Content Domain I	X		
3. Study the second standard in Content Domain I		X	

What I learned today:

1. *How scarcity and opportunity cost affect economic decisions*
2. *The definition of some important terms*
3. *How supply and demand relate to scarcity*

Today's reward for meeting my study goals: *Eating some popcorn*

Appendix D
Blank Daily Study Plan Sheet

Materials I May Need Today:

1. ___________________________________
2. ___________________________________
3. ___________________________________
4. ___________________________________
5. ___________________________________

Today's Study Location: _____________________

Study Time Today: _____________________
(Be sure to consider how long you can actively study in one sitting. Can you sit for 20 minutes? 30 minutes? An hour? If you say you will study for 3 hours but get restless after 40 minutes, anything beyond 40 minutes may not be productive—you will most likely fidget and daydream your time away. "Doing time" at your desk doesn't count as real studying.)

If I start to get tired or lose focus today, I will _______________________________________

Today's Study Goals and Accomplishments: (Be specific. Include things such as number of pages, sections, or standards. The more specific you are, the better you will be able to tell if you reached your goals. Keep it REALISTIC. You will retain more if you study small "chunks" or blocks of material at a time.)

Study Task	*Completed*	*Needs more work*	*Needs more information*
1.			
2.			
3.			
4.			
5.			

What I learned today:

1. ____
2. ____
3. ____

Today's reward for meeting my study goals: ____