Advanced Placement
Economics

Macroeconomics: 4th Edition

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Teacher Resource Manual

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– Contributors

Teacher Resource Manual

- Introduction to Resource Manual
  - Talks about how to use the publication
  - New and improved features
  - Top 10 Keys to teaching effective course
- Course Outline

Outline for an Advanced Placement Macroeconomics Course

75 class periods of 45 minutes each

Content Area	*Percentage Goals of Exam (multiple-choice section)*
I. Basic Economic Concepts	**(8–12%)**
A. Scarcity, choice, and opportunity costs	
B. Production possibilities curve	
C. Comparative advantage, absolute advantage, specialization, and exchange	
D. Demand, supply, and market equilibrium	
E. Macroeconomic issues: business cycle, unemployment, inflation, growth	
II. Measurement of Economic Performance	**(12–16%)**
A. National income accounts	
1. Circular flow	
2. Gross domestic product	
3. Components of gross domestic product	
4. Real versus nominal gross domestic product	
B. Inflation measurement and adjustment	
1. Price indices	
2. Nominal and real values	
3. Costs of inflation	
C. Unemployment	
1. Definition and measurement	
2. Types of unemployment	
3. Natural rate of unemployment	
III. National Income and Price Determination	**(10–15%)**
A. Aggregate demand	
1. Determinants of aggregate demand	
2. Multiplier and crowding-out effects	
B. Aggregate supply	
1. Short-run and long-run analyses	
2. Sticky versus flexible wages and prices	
3. Determinants of aggregate supply	
C. Macroeconomic equilibrium	
1. Real output and price level	
2. Short and long run	
3. Actual versus full-employment output	
4. Business cycle and economic fluctuations	
IV. Financial Sector	**(15–20%)**
A. Money, banking, and financial markets	
1. Definition of financial assets: money, stocks, bonds	
2. Time value of money (present and future value)	

Teacher Resource Manual

Seven units divided into lessons that provide:

- Introduction and description
- Objectives
- Time Required
- Materials (visuals and activities)
- Bell Ringer
- Procedure (life saver for newer teachers)

Scarcity, Opportunity Cost, and Production Possibilities Curves

Introduction and Description

This lesson deals with *opportunity cost*, one of the most important concepts in economics. Start with a lecture on scarcity and *production possibilities curves (PPCs)*. Then reinforce the lecture by using Activity 1-2, which develops the central economic problem of scarcity.

Opportunity costs include not only out-of-pocket expenses (*explicit costs*) but also the value of resources that could be used elsewhere (*implicit costs*). Understanding explicit and implicit costs will be essential as students analyze product markets.

Objectives

1. Define *scarcity*, *opportunity cost*, and *trade-offs*.
2. Identify the conditions that give rise to the economic problem of scarcity.
3. Identify the opportunity costs of various recent decisions made by your school or your community.
4. Construct PPCs from sets of hypothetical data.
5. Apply the concept of opportunity cost to a PPC.
6. Analyze the significance of different locations on, above, and below a PPC.
7. Identify the three questions every economic system must answer.
8. Explain the concept of economic growth. Discuss reasons for such growth, and show how it is illustrated using a PPC.

Time Required

Two class periods or 90 minutes

Materials

1. Activity 1-2
2. Visual 1-2

Bell Ringer

Is there any limit to what the United States can produce? Is there any limit to what students can buy?

***Teacher Alert:* The PPC illustrates three important economic concepts—scarcity, choice, and opportunity cost.**

Procedure

1. Give a lecture on scarcity.
   (A) Wants are unlimited.
   (B) A society's resources are limited and fall into four categories: land, labor, capital, and entrepreneurship.
   (C) Society must decide what combination of goods and services to produce this year. The cost of choosing one good is giving up another. This is called opportunity cost.
2. Use Visual 1-2 of a PPC and make points such as these:
   (A) What trade-offs are involved? *(If we want one more unit of one good, we must give up some amount of the other good.)*
   (B) Why is the PPC concave, or bowed out, from the origin? *(This is because of the law of increasing opportunity cost.)*
   (C) What does a point inside the PPC illustrate? *(It means we are below our potential because of either unemployment or inefficient use of resources.)*

Teacher Resource Manual

- Student Activities Solutions formatted the same as the Teacher Activities.
- Key Ideas Section next slide

UNIT 3 Macroeconomics KEY IDEAS

- Aggregate demand (AD) and aggregate supply (AS) curves look and operate much like the market supply and demand curves used in microeconomics. However, *aggregate* demand and *aggregate* supply curves depict somewhat different concepts, and they change for different reasons. AD and AS curves are used to illustrate changes in real output and the price level of an economy.

- The downward slope of the AD curve is explained by the *interest rate effect*, the *wealth effect*, and the *net export effect*. The wealth effect is also called the real-balance effect.

- The upward slope of the short-run aggregate supply curve (SRAS) is explained by fixed input costs (e.g., sticky wages). The long-run aggregate supply (LRAS) curve is vertical at the full-employment level of output.

- The *marginal propensity to consume* (MPC) is the additional consumption spending from an additional dollar of income. The *marginal propensity to save* (MPS) is the additional savings from an additional dollar of income:

$$MPC + MPS = 1.$$

- The spending *multiplier* shows the relationship between changes in spending and the maximum resulting changes in real gross domestic product (GDP). The simple spending multiplier is given as:

$$\text{Spending multiplier} = \frac{1}{1 - MPC} = \frac{1}{MPS}.$$

- Shifts in AD can change the level of output, the price level or both. The determinants of AD include consumer spending, investment spending, government spending, net export spending, and government policies.

- Shifts in SRAS can also change the level of output and the price level. The determinants of SRAS include changes in input prices, productivity, the legal institutional environment, and the quantity of available resources.

- There are two types of inflation: *demand-pull inflation* and *cost-push inflation*. When high unemployment occurs along with high inflation, it is known as stagflation.

- The LRAS curve is vertical at the full-employment level of output.

- In the short run, equilibrium levels of GDP can occur at less than, greater than, or at the full-employment level of GDP. Long-run equilibrium can occur only at full employment.

Changes to the 4th Edition

- Content reorganized using the AP Course Outline
- Basic Economic Concepts overlaps between AP Micro edition and AP Macro edition
- Old Content has been deleted (ex: Keynesian Cross)

Changes to the 4th Edition

- Teacher and student alerts have been added to both editions.

  (for example, in unit 1 it tells teachers to be sure to reinforce the difference between marginal and total)
- Bell Ringers have been added.
- A list of related practice free response questions from released exams is provided in each unit. (next slide)

This unit explores the role of the financial sector in the economy. Important topics include the definition and functions of money and financial assets and the banking system. The unit develops the money and loanable funds markets and presents the distinction between them. Finally, it presents the Federal Reserve System (central banking) and monetary policy. The College Board bases 10–15 percent of the Advanced Placement (AP) Macroeconomics Exam on the material covered in this unit.

The Lesson Planner

Lesson 1 Money and Assets; Activities 4-1 and 4-2

Lesson 2 Banks and Money Creation; Activity 4-3

Lesson 3 The Money Market and the Loanable Funds Market; Activities 4-4 and 4-5, and Visuals 4-1 and 4-2

Lesson 4 The Federal Reserve System and Central Banks; Activity 4-6

Lesson 5 Monetary Policy; Activities 4-7 and 4-9

Lesson 6 The Quantity Theory of Money; Activity 4-8

Practice Free Response Questions (FRQs)

This is a partial list of FRQs that can be used with each unit of the *Advanced Placement Economics: Macroeconomics* resource manual. These questions and grading rubrics are available at AP Central on the College Board Web site: http://apcentral.collegeboard.com

2011 Question 3: banking; the multiplier; the Federal Reserve

2011 Form B Question 1, part (e): loanable funds market

2010 Question 2: money

2010 Form B Question 2: central bank; money market

2009 Question 1, parts (c)–(f): Federal Reserve; money market

2009 Question 3: banking

2009 Form B Question 2: banking

2008 Question 1, part (d): loanable funds market

2007 Question 1, part (a): money market

New Activities for AP Macro

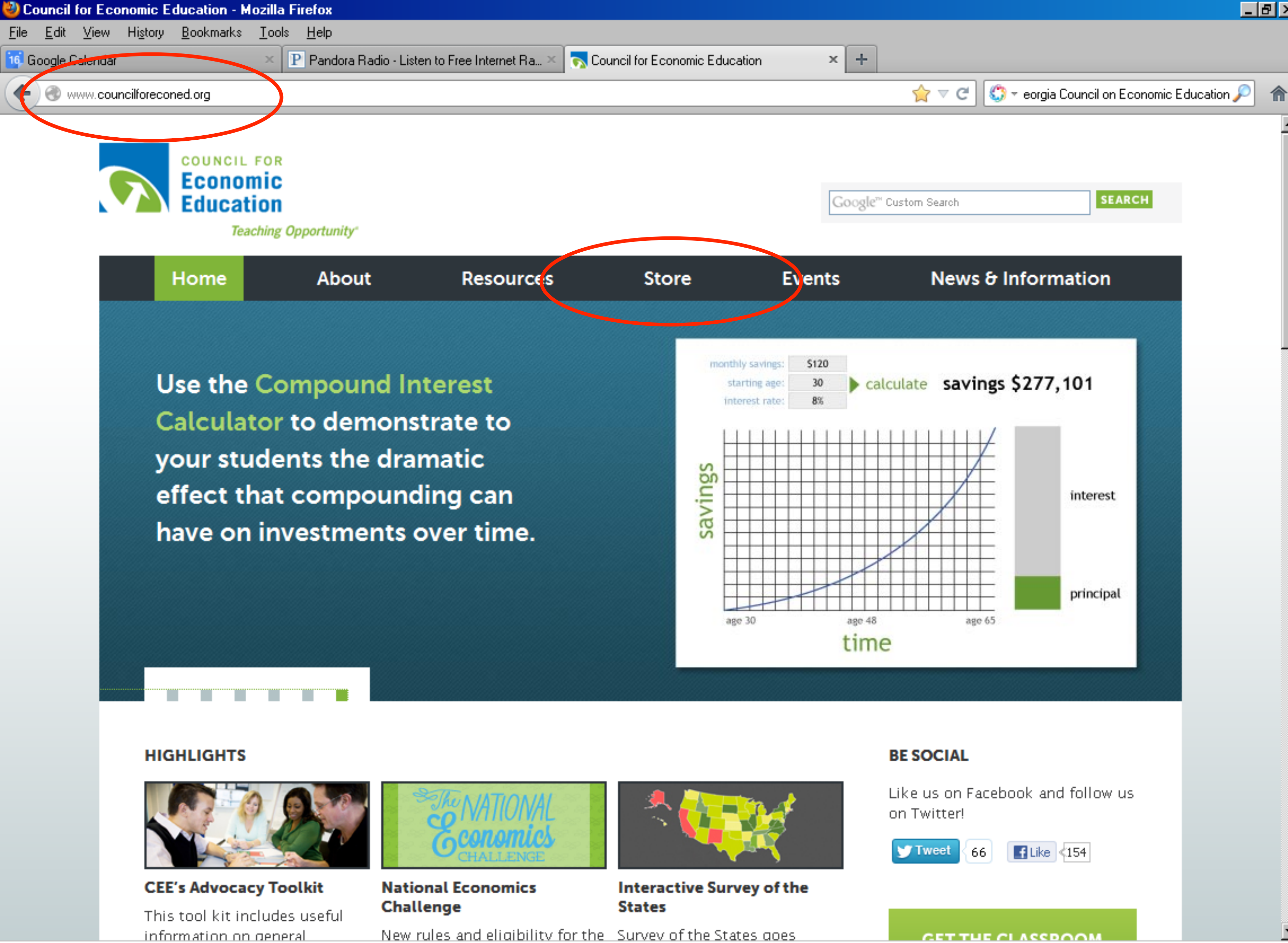
- The costs of inflation
- Sticky versus flexible prices and wages
- The types of inflation
- The time value of money
- The loanable funds market

New Activities for AP Macro

- Supply-side adjustments and policies
- The deficit and the debt
- Economic growth policies
- Net exports and capital flows

You can download the visuals and activities for projection.

www.councilforeconed.org/ap-economics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a sample lesson plan and the Table of Contents from each publication.

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Product Number: **0667**

The Council for Economic Education is pleased to introduce this fourth edition of Advanced Placement Economics. In the years since its first publication, AP Economics has become the go-to guide for helping teachers to prepare their students for the AP Microeconomics and Macroeconomics Exams administered by the College Board. We are proud of this accomplishment and believe that this current edition will continue to uphold the high standards set by its predecessors.

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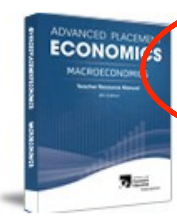

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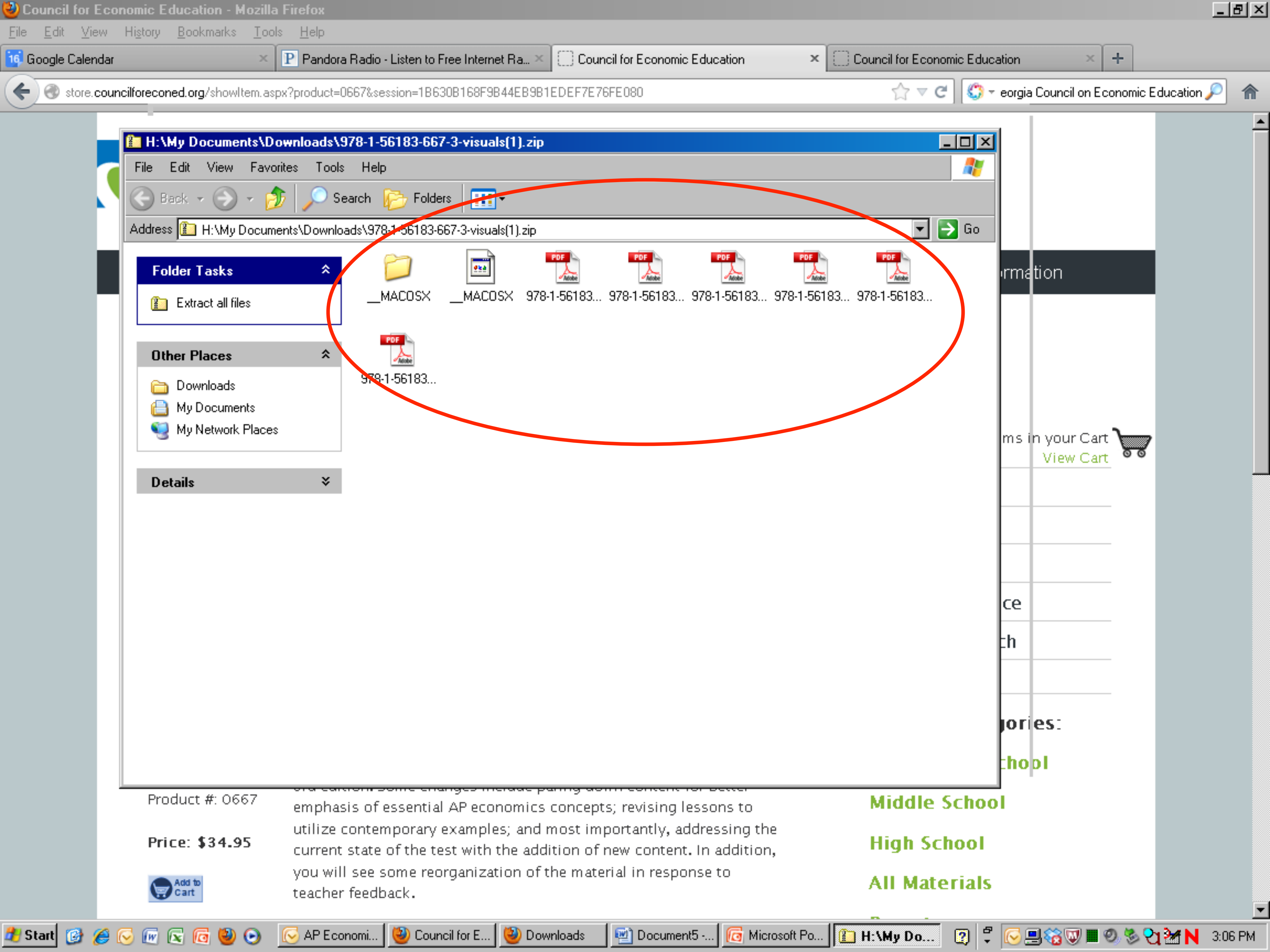
Resources

- Download Visuals (.zip)
- Download Activities (.zip)

The 4th edition of AP Economics reflects the adjustments in the AP Course Outlines and Exams in the years since the publication of the 3rd edition. Some changes include paring down content for better emphasis of essential AP economics concepts; revising lessons to utilize contemporary examples; and most importantly, addressing the current state of the test with the addition of new content. In addition, you will see some reorganization of the material in response to teacher feedback.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emphasis of essential AP economics concepts; revising lessons to utilize contemporary examples; and most importantly, addressing the current state of the test with the addition of new content. In addition, you will see some reorganization of the material in response to teacher feedback.
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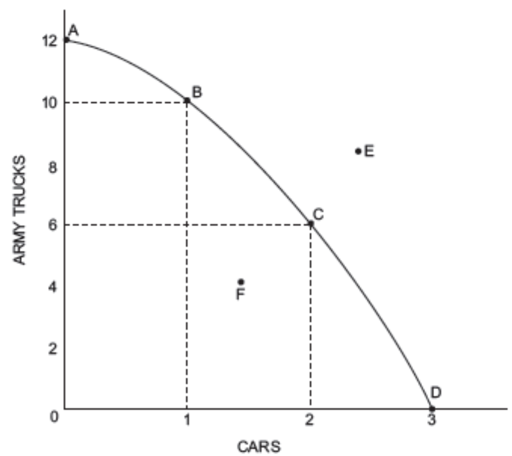
Example of Visual

Production Possibilities Curve



(1) What trade-offs are involved?

(2) Why is the PPC concave, or bowed out, from the origin?

(3) What does a point inside the PPC illustrate?

(4) What is a historical example of a point inside the PPC?

(5) What is the significance of a point outside the PPC?

(6) Under what conditions can a point outside the PPC be reached?

(7) What would a country's PPC look like if it did not have a scarcity of resources?

Student Resource Manual

- This is where the student activities are located
- Divided up into the same units.
- Has same Key Ideas page that I showed you earlier.
- Has a 25 question sample multiple choice test with each unit. Next Slide

Circle the letter of each correct answer.

1. The M0 definition of money includes which of the following?
   (A) Currency
   (B) Demand deposits
   (C) Savings accounts
   (D) Small time deposits
   (E) Money market accounts

2. If the legal reserve requirement is 25 percent, the value of the simple deposit expansion multiplier is
   (A) 2.
   (B) 4.
   (C) 5.
   (D) 10.
   (E) 1.0.

3. When money is used as a standard of value, a person is
   (A) earning more money than before.
   (B) purchasing a necessity.
   (C) making a financial transaction.
   (D) making price comparisons among products.
   (E) writing a check for groceries.

4. Which of the following are true statements about the federal funds rate?
   I. It is the same thing as the discount rate.
   II. It is the interest rate that banks charge each other for short-term loans.
   III. It is influenced by open market operations.

   (A) I only
   (B) II only
   (C) III only
   (D) I and II only
   (E) II and III only

5. Suppose the Federal Reserve buys $400,000 worth of securities from the securities dealers on the open market. If the reserve requirement is 20 percent and the banks hold no excess reserves, what will happen to the total money supply?
   (A) It will be unchanged.
   (B) It will contract by $2,000,000.
   (C) It will contract by $800,000.
   (D) It will expand by $2,000,000.
   (E) It will expand by $800,000.

6. All of the following are financial assets *except*
   (A) loans.
   (B) stocks.
   (C) bonds.
   (D) bank deposits.
   (E) required reserves.

7. A commercial bank holds $500,000 in demand deposit liabilities and $120,000 in reserves. If the required reserve ratio is 20 percent, which of the following is the maximum amount by which this single commercial bank and the maximum amount by which the banking system can increase loans?

	Amount created by single bank	Amount created by banking system
(A)	$5,000	$25,000
(B)	$20,000	$80,000
(C)	$20,000	$100,000
(D)	$30,000	$150,000
(E)	$120,000	$500,000

Understanding the Circular Flow of the Macroeconomy

Firms provide goods and services to households through the product market. Households pay firms for these goods and services.

Households supply firms with the factors of production (also called resources) through the factor market. Firms pay households for resources (land, labor, capital, and entrepreneurial skill).

The income firms pay to households includes rent, wages, interest, and profits. It equals the dollar value of the output sold as shown in the circular flow diagram in Figure 2-1.1. The flow on the diagram that includes expenditures for goods and services produced and sold in the product market represents gross domestic product (GDP). The approach to measuring GDP using this flow is called the *expenditures approach*.

Student Alert: **Using the expenditures approach,**

$$\text{GDP} = C + I + G + Xn.$$

The details about this equation for GDP are developed in a later activity. For now, make sure you understand how the expenditures approach measures GDP, and that this equation forms the basis for models developed throughout the rest of the course.

The flow on the diagram that includes payments for the resources used to produce goods and services in the factor market is another way to represent GDP. The approach to measuring GDP using this flow is called the *income approach*.

In addition to the basic flow of economic activity illustrated by the flows between the product and factor markets shown on the outside of the diagram, there are leakages from the flow and injections into the flow that affect its size. The leakages and injections happen through the government, financial institutions (e.g., banks), and international trade. These are shown using the boxes in the center of the circular flow diagram.

What are your questions?

AP Micro: February 13th