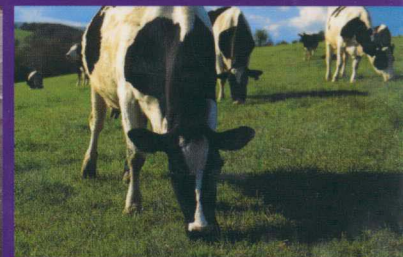
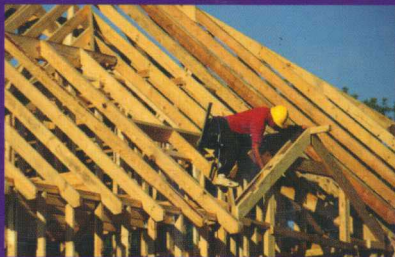
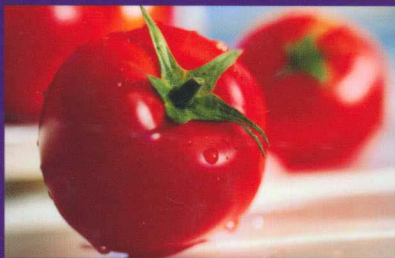
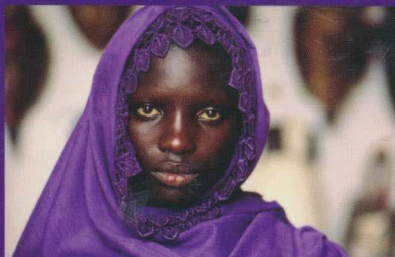
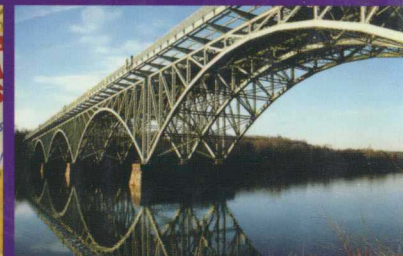
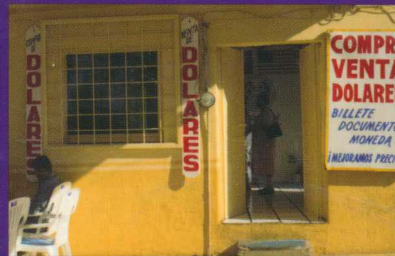


KRUGMAN'S ECONOMICS for AP*

Margaret Ray and David Anderson



Adapted from *Economics*, Second Edition
by Paul Krugman and Robin Wells

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University of Mary Washington

Centre College



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I. Basic Economic Concepts (8–12%)

- A. Scarcity, choice, and opportunity costs
- B. Production possibilities curve
- C. Comparative advantage, absolute advantage, specialization, and exchange
- E. Macroeconomic issues: business cycle, unemployment, inflation, growth
- D. Demand, supply, and market equilibrium

II. Measurement of Economic Performance (12–16%)

- A. National income accounts
- C. Unemployment
- B. Inflation measurement and adjustment

III. National Income and Price Determination (10–15%)

- A. Aggregate demand
- B. Aggregate supply
- C. Macroeconomic equilibrium

IV. Financial Sector (15–20%)

- A. Money, banking, and financial markets

Section 1: Basic Economic Concepts

- Module 1 The Study of Economics
- Module 3 The Production Possibilities Curve Model
- Module 4 Comparative Advantage and Trade
- Module 2 Introduction to Macroeconomics

Section 2: Supply and Demand

- Module 5 Supply and Demand: Introduction and Demand
- Module 6 Supply and Demand: Supply and Equilibrium
- Module 7 Supply and Demand: Changes in Equilibrium

Section 3: Measurement of Economic Performance

- Module 10 The Circular Flow and Gross Domestic Product
- Module 11 Interpreting Real Gross Domestic Product
- Module 12 The Meaning and Calculation of Unemployment
- Module 13 The Causes and Categories of Unemployment
- Module 14 Inflation: An Overview
- Module 15 The Measurement and Calculation of Inflation

Section 4: National Income and Price Determination

- Module 16 Income and Expenditure
- Module 17 Aggregate Demand: Introduction and Determinants
- Module 18 Aggregate Supply: Introduction and Determinants
- Module 19 Equilibrium in the Aggregate Demand–Aggregate Supply Model
- Module 20 Economic Policy and the Aggregate Demand–Aggregate Supply Model
- Module 21 Fiscal Policy and the Multiplier

Section 5: The Financial Sector

- Module 22 Saving, Investment, and the Financial System
- Module 23 The Definition and Measurement of Money
- Module 24 The Time Value of Money

- B. The central bank and control of the money supply

**V. Inflation, Unemployment, and Stabilization Policies
(20–30%)**

- A. Fiscal and monetary policies

- B. Inflation and unemployment

VI. Economic Growth and Productivity (5–10%)

**VII. Open Economy: International Trade and Finance
(10–15%)**

- A. Balance of payments accounts, and C. Net exports and capital flows
- B. The foreign exchange market
- D. Links to financial and goods markets

Module 25 Banking and Money Creation

Module 28 The Money Market

Module 29 The Market for Loanable Funds

Module 26 The Federal Reserve System: History and Structure

Module 27 The Federal Reserve: Monetary Policy

Section 6: Inflation, Unemployment, and Stabilization Policies

Module 30 Long-run Implications of Fiscal Policy: Deficits and the Public Debt

Module 31 Monetary Policy and the Interest Rate

Module 32 Money, Output, and Prices in the Long Run

Module 33 Types of Inflation, Disinflation, and Deflation

Module 34 Inflation and Unemployment: The Phillips Curve

Module 35 History and Alternative Views of Macroeconomics

Module 36 The Modern Macroeconomic Consensus

Section 7: Economic Growth and Productivity

Module 37 Long-run Economic Growth

Module 38 Productivity and Growth

Module 39 Growth Policy: Why Economic Growth Rates Differ

Module 40 Economic Growth in Macroeconomic Models

Section 8: Open Economy: International Trade and Finance

Module 41 Capital Flows and the Balance of Payments

Module 42 The Foreign Exchange Market

Module 43 Exchange Rate Policy

Module 44 Exchange Rates and Macroeconomic Policy

Module 45 Putting It All Together

College Board AP Topic Outline Microeconomics

I. Basic Economic Concepts (8–14%)

- A. Scarcity, choice, and opportunity cost
- B. Production possibilities curve
- C. Comparative advantage, absolute advantage, specialization, and trade
- D. Economic systems
- E. Property rights and the role of incentives
- F. Marginal analysis

II. The Nature and Function of Product Markets (55–70%)

- A. Supply and demand
 - 1. Market equilibrium
 - 2. Determinants of supply and demand
 - 3. Price and quantity controls
 - 4. Elasticity
 - 5. Consumer surplus, producer surplus, and market efficiency
 - 6. Tax incidence and deadweight loss
- B. Theory of consumer choice
- C. Production and costs
 - 1. Production functions
 - 2. Marginal product and diminishing returns
 - 3. Short-run costs
 - 4. Long-run costs and economies of scale
 - 5. Cost minimizing input combination
- D. Firm behavior and market structure
 - 1. Profit
 - 2. Perfect competition
 - 3. Monopoly

Krugman's Economics for AP*

Section 1: Basic Economic Concepts

- Module 1 The Study of Economics
- Module 3 The Production Possibilities Curve Model
- Module 4 Comparative Advantage and Trade
- Module 1 The Study of Economics
- Module 1 The Study of Economics
- Module 1 The Study of Economics

Section 2: Supply and Demand

- Module 5 Supply and Demand: Introduction and Demand
- Module 6 Supply and Demand: Supply and Equilibrium
- Module 7 Supply and Demand: Changes in Supply and Demand
- Module 8 Supply and Demand: Price Controls
- Module 9 Supply and Demand: Quantity Controls

Section 9: Behind the Demand Curve: Theory of Consumer Choice

- Module 46 Income and Substitution Effects and Elasticity
- Module 47 Interpreting Price Elasticity of demand
- Module 48 Other Elasticities
- Module 49 Consumer and Producer Surplus
- Module 50 Efficiency and deadweight Loss
- Module 51 Utility Maximization

Section 10: Behind the Supply Curve: Profit, Production, and Costs

- Module 54 The Production Function
- Module 54 The Production Function
- Module 55 Firm Costs
- Module 56 Long Run Costs and Economies of Scale
- Module 72 Cost Minimizing Input Combinations

- Module 57 Introduction to Market Structures
- Module 52 Defining Profit
- Module 53 Profit Maximization

Section 11: Market Structures: Perfect Competition and Monopoly

- Module 58 Introduction to Perfect Competition
- Module 59 Graphing Perfect Competition
- Module 60 Long-Run Outcomes in Perfect Competition
- Module 61 Introduction to Monopoly
- Module 62 Monopoly and Public policy
- Module 63 Price Discrimination

4. Oligopoly

5. Monopolistic competition

III. Factor Markets (10–18%)

- A. Derived factor demand
- B. Marginal revenue product
- C. Labor market and firms' hiring of labor
- D. Market distribution of income

IV. Market Failure and the Role of Government (12–18%)

- A. Externalities
- B. Public goods
- C. Public policy to promote competition
- D. Income distribution

Section 12: Market Structures: Imperfect Competition

- Module 64 Introduction to Oligopoly
- Module 65 Game Theory
- Module 66 Oligopoly in Practice
- Module 67 Introduction to Monopolistic Competition
- Module 68 Product Differentiation and Advertising

Section 13: Factor Markets

- Module 69 Introduction and Factor Demand
- Module 69 Introduction and Factor Demand
- Module 70 The Markets for Land and Capital
- Module 71 The Market for Labor
- Module 73 Theories of Income Distribution

Section 14: Market Failure and the Role of Government

- Module 74 Introduction to Externalities
- Module 75 Externalities and Public Policy
- Module 76 Public goods
- Module 77 Public Policy to Promote Competition: Anti-trust and Regulation
- Module 78 Income Distribution and Income Inequality

Appendix: Enrichment Modules

- Module 79 The Economics of Information
- Module 80 Indifference Curves and Consumer Choice

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About the Author

To beginning students everywhere,
which we all were at one time.

About the Authors



Margaret Ray is Professor of Economics at the University of Mary Washington, where she specializes in teaching introductory economics. She received her BS in Economics from Oklahoma State University and her PhD in Economics from the University of Tennessee. Her research is primarily in the areas of economic education and equine industry economics. In 2003 she taught AP Economics at Collegiate School in Virginia. Ray received the National Council on Economic Education's Excellence in Teaching Economics award in 1991. She has been involved in the AP Economics program since 1992, serving as a reader and question leader, writing test items, overseeing the AP course audit, writing College Board "*Special Focus*" articles, and contributing activities to the National Council on Economic Education's *AP Economics* resource. She has been a College Board Endorsed Consultant for economics since 2001 and she conducts several professional development workshops and institutes each year. She currently serves on the Steering Committee for the College Board's AP National Conference.



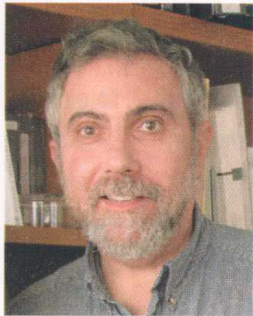
David Anderson is the Paul G. Blazer Professor of Economics at Centre College. He received his BA in Economics from the University of Michigan and his MA and PhD in Economics from Duke University. Anderson is a leading authority on AP Economics and speaks regularly at the International AP Economics Teacher Conference, the National AP Conference, and regional AP Economics workshops. He has authored dozens of scholarly articles and ten books, including *Cracking the AP Economics Exam*, *Favorite Ways to Learn Economics*, *Environmental Economics and Natural Resource Management*, *Contemporary Economics for Managers*, *Treading Lightly*, and *Economics by Example*. His research is primarily on economic education, environmental economics, law and economics, and labor economics. Anderson teaches courses in each of these fields and loves teaching introductory economics. He lives in Danville, Kentucky with his wife and two children.

Supplements Team



Eric Dodge **Teachers Resource Binder, Test Bank**

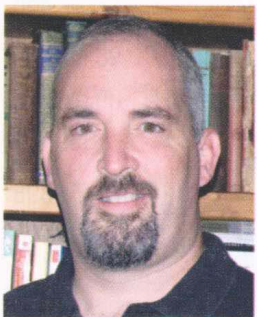
Eric is Professor of Economics and Business Administration at Hanover College in Indiana. He received his BA from the University of Puget Sound and his MA and PhD from the University of Oregon. Eric has been involved with AP Economics for more than ten years and has served as reader, table leader, and question leader.



Paul Krugman, recipient of the 2008 Nobel Memorial Prize in Economics, is Professor of Economics at Princeton University, where he regularly teaches the principles course. He received his BA from Yale and his PhD from MIT. Prior to his current position, he taught at Yale, Stanford, and MIT. He also spent a year on the staff of the Council of Economic Advisers in 1982–1983. His research is mainly in the area of international trade, where he is one of the founders of the “new trade theory,” which focuses on increasing returns and imperfect competition. He also works in international finance, with a concentration in currency crises. In 1991, Krugman received the American Economic Association’s John Bates Clark medal. In addition to his teaching and academic research, Krugman writes extensively for nontechnical audiences. Krugman is a regular op-ed columnist for the *New York Times*. His latest trade book, *The Conscience of a Liberal*, is a best-selling study of the political economy of economic inequality and its relationship with political polarization from the Gilded Age to the present. His earlier books, *Peddling Prosperity* and *The Age of Diminished Expectations*, have become modern classics.



Robin Wells was a Lecturer and Researcher in Economics at Princeton University. She received her BA from the University of Chicago and her PhD from the University of California at Berkeley; she then did postdoctoral work at MIT. She has taught at the University of Michigan, the University of Southampton (United Kingdom), Stanford, and MIT. The subject of her teaching and research is the theory of organizations and incentives.



David Mayer

Strive for a 5, Lecture PowerPoint Presentations

Dave teaches at Churchill High School in San Antonio, Texas. He received a BA in Economics from Texas A&M University and earned his MA at University of Texas, San Antonio. He has been teaching the AP Economics course since 2004, and began working as an AP Economics reader and then table leader in 2006. Dave is a College Board Endorsed Consultant for economics and he conducts several professional development workshops and institutes each year. He is the author of *The Everything Economics Book* published by Adams Media in 2010. David lives in San Antonio with his wife Courtney and children Caty and Colin.

Preface

"If you want to be listened to, you should put in time listening." —Marge Piercy

FROM MARGARET AND DAVE

We understand the unique challenges of teaching and learning AP Economics. This book is the culmination of our combined 35 years of work with AP Economics students and teachers. We have seen the challenges first hand, and we have listened to the concerns and solutions of the many remarkable teachers with whom it has been our privilege to work. The creation of this book draws from our experience in every facet of AP-level education, from teaching high school classes to leading AP Economics professional development programs. We have designed this book and its ancillary resources to be the most effective possible resources to help teachers and students succeed in AP Economics.

It is clear that the foundation of any effective AP Economics course is a high quality, college level textbook. The impetus for this project was the recognition that, while any college level introductory textbook can be adapted for use in an AP Economics course, no existing textbook is sufficient for the task. The existing textbooks cover large amounts of material that is *not* included on the AP Course Outline and omit important topics that are on the Outline. Teachers using existing textbooks must navigate around unnecessary chapters, cover chapters with some relevant topics but lots of superfluous information, and search for supplementary materials to cover topics not addressed in the text. These problems hinder the effectiveness of standard textbooks and make extra work for both teachers and students. While some other college level books have been printed as "AP Editions," the changes in those editions are little more than new labels and covers. This book is different. It is made specifically to satisfy the goals of the AP Economics teacher and student.

Intent on promoting the efficiency and effectiveness of AP Economics courses, we started with the best available college-level introduction to economics—Krugman and Wells' *Economics*, second edition. The first edition of the Krugman and Wells textbook was a resounding success, quickly becoming one of the best-selling college economics textbooks. AP Economics teachers embraced the textbook for its clear explanations and storytelling approach. The second edition of *Economics* became even more popular and successful. We knew that it would be the best foundation for an AP adaptation. Our goal was to retain the features of *Economics* that make it a winner, while crafting it to closely follow the AP syllabus and speak to a high school audience. We hope the result will serve as the best possible textbook for teaching and learning AP Economics.

The Organization of This Book and How to Use It

The organization of this book is inspired by our goal of adapting the parent book to best support AP Economics teachers and students. The sequence of sections and modules conforms to both the AP Topic Outline and a traditional sequence of material that has been found to be pedagogically effective. The sections and modules are grouped into building blocks in which conceptual material learned at one stage is built upon and then integrated into the conceptual material covered in the next stage. All material included in the AP Economics Course Description is included here, and all material included here is related to AP course requirements. Following is a walkthrough of the sections in the book:

Note: The material covered in sections 1 and 2 is found on both the AP Macroeconomics and the AP Microeconomics Topic Outlines

Section 1: Basic Economic Concepts

The first section initiates students into the study of economics, including scarcity, choice and opportunity cost. Module 1 provides students with definitions of basic terms in economics. Module 2 provides an overview of the study of macroeconomics, including economic growth, unemployment, inflation, and the business cycle. Modules 3 and 4 present the production possibilities curve model and use it to explain comparative and absolute advantage, specialization and exchange.

Section 2: Supply and Demand

Section 2 begins with an opening story that uses the market for coffee beans to illustrate supply and demand, market equilibrium, and surplus and shortage. Modules 5, 6, and 7 introduce the important parts of the supply and demand model; demand, supply, and equilibrium. Module 8 and 9 teach students how to use the model to analyze price and quantity in markets.

Macroeconomics

Sections 3–8 cover the material found exclusively on the AP Macroeconomics Topic Outline.

Section 3: Measurement of Economic Performance

In Section 3, we provide an overview of the topics in macroeconomics that provides the foundation for models that are covered in later sections. Modules 10 and 11 introduce the circular flow model and gross domestic product.

Modules 12 and 13 teach students how to define, measure, and categorize the types of unemployment. The definition and measurement of inflation, price indices (real versus nominal values), and the costs of inflation are presented in Modules 14 and 15.

Section 4: National Income and Price Determination

Section 4 introduces national income and price determination and presents the aggregate supply and demand model, which is the foundation for the material presented in later sections. Modules 16, 17, 18, and 19 introduce individual parts for the model; income and expenditures, aggregate demand, aggregate supply, and equilibrium in the model. Macroeconomics equilibrium and economics fluctuations (including fiscal policy and the multiplier) are presented in Modules 20 and 21.

Section 5: Financial Sector

In Section 5, money, banks, and the Federal Reserve are added to our model of the macroeconomy. Modules 22, 23, and 24 present basic concepts and their definitions; saving, investment, financial assets, money, the money supply, and the time value of money. Module 25 introduces banking and the creation of money in the economy. Central banks and the Federal Reserve System are included in Modules 26 and 27. Finally, the money market and monetary policy, including the loanable funds market, are presented in Modules 28 and 29.

Section 6: Inflation, Unemployment and Stabilization Policies

Section 6 continues with coverage of monetary and fiscal policies. Module 30 focuses on fiscal policy and the implications of government deficits and debt. Module 31 focuses on monetary policy and its effect on the interest rate. Modules 32 and 33 look in detail at the types of inflation, disinflation, and deflation, while Module 34 introduces both the short-run and long-run Phillips curve. Finally, Modules 35 and 36 present some history of macroeconomic thought as it leads to the modern macroeconomic consensus, emphasizing the role of expectations in macroeconomic policy.

Section 7: Economic Growth and Productivity

Economic growth and the role of productivity are the focus in Section 7. Module 37 defines and discusses long-run economic growth and Module 38 emphasizes the role of productivity in generating economic growth. Module 39 looks at how differences in human and physical capital,

research and development, and technology lead to differences in long-run economic growth and how growth policy can be used to facilitate economic growth in the long run. Finally, Module 40 reviews and highlights how economic growth plays a role in the macroeconomic models developed in earlier sections.

Section 8: Open Economy: International Trade and Finance

Section 8 adds the international sector to the macroeconomic models presented in previous sections. Module 41 introduces balance of payments accounts. Modules 42 and 43 develop the foreign exchange market and exchange rate policy. Module 44 links the foreign exchange market to financial markets and the markets for goods and services through a discussion of exchange rates and macroeconomic policy.

Module 45 Module 45 shows students how the models they have studied throughout the course can be applied to answer real-world questions, like the type they will see on the AP exam.

Microeconomics

Section 9 begins coverage of the material exclusive to the AP Microeconomics Topic Outline. The first section of the AP Microeconomics Topic Outline, “Nature and Function of Product Markets,” is quite large, representing 55–75% of the course material. We break this material into five sections: 2, 9, 10, 11, and 12.

Section 9: Behind the Demand Curve: Consumer Choice

This section looks more closely at topics related to the demand curve. Module 46 explains how the income and substitution effects relate to a downward sloping demand curve and presents the concept of elasticity. Module 47 is devoted to developing price elasticity while Module 48 explains three additional elasticity measures important in economics. Consumer and producer surplus are presented in Modules 49 and 50 and are used to explain deadweight loss. Finally, Module 51 presents consumer theory and utility maximization.

Section 10: Behind the Supply Curve: Profit, Production, and Costs

Section 10 shifts to a more detailed discussion of the supply curve. This section introduces the production and cost concepts used throughout the following sections. The section begins with a discussion of profit and profit

maximization in Modules 52 and 53. Module 54 develops the production function. Modules 55 and 56 introduce cost concepts, both short-run and long-run. The last module provides an introduction to the market structures covered in Sections 11 and 12.

Section 11: Market Structures: Perfect Competition and Monopoly

Section 11 presents the perfect competition and monopoly market structures. Modules 58–60 present perfect competition. Modules 58 and 59 develop the perfect competition model and graphs. Module 60 presents the long-run outcomes under perfect competition. Modules 61–63 present the monopoly market structure. Module 61 develops the basic monopoly model. Module 62 presents public policies toward monopoly and Module 63 explains the practice of price discrimination.

Section 12: Market Structures: Imperfect Competition

This section introduces the imperfectly competitive market structures: oligopoly and monopolistic competition. Module 64 introduces oligopoly and Module 66 discusses oligopoly market structures in the real world. Game theory as it relates to oligopoly is given special attention in Module 65. Module 67 explains monopolistic competition. Module 68 covers product differentiation under monopolistic competition with special focus on the role of advertising.

Section 13: Factor Markets

This section begins with Module 69, an introduction to factor markets and factor demand. Modules 70 and 71 present the markets for land, capital, and labor. Module 72 explains how to find the cost-minimizing combination of inputs. The last module in the section discusses the marginal productivity theory of income distribution and various sources of wage differentials.

Section 14: Market Failure and the Role of Government

This section focuses on the conditions under which markets fail and explains public and private approaches to market failure. Modules 74 and 75 discuss externalities and the public policies and private remedies available to address them. Module 76 covers public goods. Module 77 presents the use of antitrust law and government regulation to promote competition. Module 78 explains theories of income distribution and income inequality.

The appendix to Section 14 provides enrichment modules. While not currently part of the material on the AP

Topic Outline, these modules contain extensions of the material presented in AP courses. They provide enrichment materials for advanced students or for coverage after the AP exam. This material may also be considered for inclusion on the AP Topic Outline in the future. Module 79 presents the economics of information, including adverse selection and moral hazard. Module 80 discusses indifference curves and consumer choice, an extension of the material in Module 51.

The AP Edition: What's Different?

Perhaps the most important feature of the AP adaptation of *Economics* is what has been left unchanged. We retain Paul Krugman's fresh voice and lively writing style, which AP students find easy to understand. We also adhere to the general approach of the parent book:

"To achieve deeper levels of understanding of the real world through economics, students must learn to appreciate the kinds of trade-offs and ambiguities that economists and policy makers face when applying their models to real-world problems. We believe this approach will make students more insightful and more effective participants in our common economic, social, and political lives."

Finally, we have been careful to maintain the international focus and global coverage of issues from *Economics*, 2e.

However, we have made significant changes in the original book to meet the specific needs of AP Economics teachers and students. Here are the major adaptations:

Close Adherence to the AP Topic Outline and Terminology

We have carefully followed the AP Topic Outlines for Macroeconomics and Microeconomics and included all of the material required for the course. The book covers the course material using the same terminology students will see on the AP Economics Exam. When there is more than one term that can be used in a particular situation, we have introduced students to each of the terms they might see on the exam and made it clear that the terms are synonymous. Because it closely conforms to the required course material and introduces AP exam terminology, this book helps students learn the material and terminology they will see on their AP Economics Exam.

AP Course-friendly Organization

This book is arranged by sections that correspond to the AP Topic Outline provided by the College Board. Each section is divided into 4–7 modules. Each module breaks the

course material into a pedagogically appropriate unit that is designed to be presented in one class period, with additional class periods for activities, demonstrations, and reinforcement, as needed. This organization takes teachers and students through the required AP course material in a sequence and at a pace designed for optimal success for students in AP economics classes.

Relevant Examples

The Krugman and Wells textbook was lauded for its use of relevant and interesting examples to teach economic principles. We have retained this approach and many of the examples from the parent book. However, we have modified, added, or replaced examples to speak specifically to a high school audience.

Practice for the AP Exam

Each module in the book ends with AP review material including sample multiple-choice and free-response questions related to the content in the module. The multiple-choice questions are written in the style of the AP exam with five distracters. Two sample free-response questions are included for each module, the first of which includes a sample grading rubric. Providing the rubric helps students to prepare for the format of the AP exam and to better understand how their responses will be graded (which will help them to provide better responses on the exam). In addition, Module 45 “Putting it All Together” is devoted to showing students how to use the economic principles they have learned in macroeconomics to answer comprehensive questions like the long question typically found on the AP Economics Exams.

Supplements

The teacher and student supplements have been designed by experts in AP economics to facilitate teaching and learning. The instructor’s resources are comprehensive enough to guide new AP teachers through their first years of teaching AP economics but also provide unique ideas and suggestions that will help experienced teachers enhance their courses. The student’s resources help students through both the course and preparation for the AP exam. All supplement materials are developed to adhere to the AP course outline, goals, and testing format.

Economics by Example

David Anderson’s *Economics by Example* has become a leading supplemental resource for AP economics courses. Each book is bundled with a copy of the Anderson book, and suggestions for how to use it in an AP economics course are integrated throughout the text and the instructor materials.

Advantages of This Book

This book has all of the advantages found in the parent book as well as many new advantages unique to the AP adaptation:

- **Created by a Team with Insight.** The team of authors for this project has a wealth of experience with AP economics. This book is the result of extensive collaboration within the team as well as incredible support from highly qualified AP content reviewers and accuracy checkers at all points along the way.
- **Created Specifically to Meet the Needs of AP Economics Teachers and Students.** From the Table of Contents through the supplements, this project is specifically designed to meet the needs of AP teachers and students. The outline of the book follows the AP topic outline, the terminology in the book conforms to accepted terminology used in AP materials and on the AP exam, and supplements provide everything new or experienced teachers and students need to be successful in an AP economics course.
- **Chapters build intuition through realistic examples.** In every chapter, real-world examples, stories, applications, and case studies teach the core concepts and motivate student learning. The best way to introduce concepts and reinforce them is through real-world examples; students simply relate more easily to them.
- **Pedagogical features reinforce learning.** The book includes a genuinely helpful set of features that are illustrated and described later in the Preface.
- **Modules are accessible and entertaining.** A fluid and friendly writing style makes concepts accessible. Whenever possible, the book uses examples that are familiar to students: choosing which college to attend, paying a high price for a cup of coffee, or deciding where to eat at the food court at the local shopping mall.
- **Although easy to understand, the book also prepares students for the AP exam and further coursework.** Too often, instructors find that selecting a textbook means choosing between two unappealing alternatives: a textbook that is “easy to teach” but leaves major gaps in students’ understanding, or a textbook that is “hard to teach” but adequately prepares students for the AP exam and future coursework. This is an easy-to-understand textbook that offers the best of both worlds.

Tools for Learning...Getting the Most from This Book

Each section and its modules are structured around a common set of features designed to help students learn while keeping them engaged.

The **section outline** lists the modules that comprise the section and suggests a relevant chapter in Dave Anderson's book, *Economics by Example*, which is packaged with this text.

Opening Story Each section opens with a compelling story that often extends through the modules. The opening stories are designed to illustrate important concepts, to build intuition with realistic examples, and then to encourage students to read on and learn more.

section 4

- Module 16** Income and Expenditure
- Module 17** Aggregate Demand: Introduction and Determinants
- Module 18** Aggregate Supply: Introduction and Determinants
- Module 19** Equilibrium in the Aggregate Demand–Aggregate Supply Model
- Module 20** Economic Policy and the Aggregate Demand–Aggregate Supply Model
- Module 21** Fiscal Policy and the Multiplier
- Economics by Example:** "How Much Debt Is Too Much?"

National Income and Price Determination

FROM BOOM TO BUST

Ft. Myers, Florida, was a boom town in 2003, 2004, and most of 2005. Jobs were plentiful: by 2005 the unemployment rate was less than 3%. The shopping malls were humming, and new stores were opening everywhere.

But then the boom went bust. Jobs became scarce, and by 2009 the unemployment rate had reached 14%. Stores had few customers, and many were closing. One new business was flourishing, however. Marc Joseph, a real estate agent, began offering "foreclosure tours": visits to homes that had been seized by banks after the owners were unable to make mortgage payments.

What happened? Ft. Myers boomed from 2003 to 2005 because of a surge in home construction, fueled in part by speculators who bought houses not to live in, but because they believed they could resell those houses at much higher prices. Home construction gave jobs to construction workers, electricians, real estate agents, and others. And these workers, in turn, spent money locally, creating jobs for sales workers, waiters, gardeners, pool cleaners, and more. These workers also spent money locally, creating further expansion, and so on.

The boom turned into a bust when home construction came to a virtual halt. It turned out that speculation had been feeding on itself: people were buying houses as investments, then selling them to other people who were also buying houses as investments, and the prices had risen to levels far beyond what people who actually wanted to live in houses were willing to pay.

The abrupt collapse of the housing market pulled the local economy down with it, as the process that had created the earlier boom operated in reverse.

The boom and bust in Ft. Myers illustrates, on a small scale, the way booms and busts often happen for the economy as a whole. The business cycle is often driven by ups or downs in investment spending—either residential investment spending (that is, spending on home construction) or nonresidential investment spending (such as spending on construction of office buildings, factories, and shopping malls). Changes in investment spending, in turn, indirectly lead to changes in consumer spending, which magnify—or *multiply*—the effect of the investment spending changes on the economy as a whole.

In this section we'll study how this process works on a grand scale. As a first step, we introduce *multiplier* analysis and show how it helps us understand the business cycle. In Module 17 we explain *aggregate demand* and its two most important components, consumer spending and investment spending. Module 18 introduces *aggregate supply*, the other half of the model used to analyze economic

fluctuations. We will then be ready to explore how aggregate supply and aggregate demand determine the levels of prices and real output in an economy. Finally, we will use the aggregate demand–aggregate supply model to visualize the state of the economy and examine the effects of economic policy.





What you will learn in this Module:

- How scarcity and choice are central to the study of economics
- The importance of opportunity cost in individual choice and decision making
- The difference between positive economics and normative economics
- When economists agree and why they sometimes disagree
- What makes macroeconomics different from microeconomics

What You Will Learn in This Module Each module has an easy-to-review bulleted list format that alerts students to critical concepts and module objectives.

Key Terms Every key term is defined in the text and then again in the margin, making it easier for students to study and review important vocabulary.

Economics is the study of scarcity and choice.

Individual choice is decisions by individuals about what to do, which necessarily involve decisions about what not to do.

An **economy** is a system for coordinating a society's productive and consumptive activities.

In a **market economy**, the decisions of individual producers and consumers largely determine what, how, and for whom to produce, with little government involvement in the decisions.

Module 1

The Study of Economics

Individual Choice: The Core of Economics

Economics is the study of scarcity and choice. Every economic issue involves, at its most basic level, **individual choice**—decisions by individuals about what to do and what *not* to do. In fact, you might say that it isn't economics if it isn't about choice.

Step into a big store such as Walmart or Target. There are thousands of different products available, and it is extremely unlikely that you—or anyone else—could afford to buy everything you might want to have. And anyway, there's only so much space in your room. Given the limitations on your budget and your living space, you must choose which products to buy and which to leave on the shelf.

The fact that those products are on the shelf in the first place involves choice—the store manager chose to put them there, and the manufacturers of the products chose to produce them. The **economy** is a system that coordinates choices about production with choices about consumption, and distributes goods and services to the people who want them. The United States has a **market economy**, in which production and consumption are the result of decentralized decisions by many firms and individuals. There is no central authority telling people what to produce or where to ship it. Each individual producer makes what he or she thinks will be most profitable, and each consumer buys what he or she chooses.

All economic activities involve individual choice. Let's take a closer look at what this means for the study of economics.

Resources Are Scarce

You can't always get what you want. Almost everyone would like to have a beautiful house in a great location (and help with the housecleaning), two or three luxury cars, a vacation in France, and a new car. But even in a rich country like the United States, you must make choices—whether to go to a big city or a small town, whether to make do with a small backyard or a large one, and so on. And it's cheaper.

fyi

The Great Tortilla Crisis

"Thousands in Mexico City protest rising food prices." So read a recent headline in the *New York Times*. Specifically, the demonstrators were protesting a sharp rise in the price of tortillas, a staple food of Mexico's poor, which had gone from 25 cents a pound to between 35 and 45 cents a pound in just a few months.

Why were tortilla prices soaring? It was a classic example of what happens to equilibrium prices when supply falls. Tortillas are made from corn; much of Mexico's corn is imported from the United States, with the price of corn in both countries basically set in the U.S. corn market. And U.S. corn prices were rising rapidly thanks to surging demand in a new market: the market for ethanol.

Ethanol's big break came with the Energy Policy Act of 2005, which mandated the use of a large quantity of "renewable" fuels starting in 2006, and rising steadily thereafter. In practice, that meant increased use of ethanol. Ethanol producers rushed to build new production facilities and quickly began buying lots of corn. The result was a rightward shift of the demand curve for corn, leading to a sharp rise in the price of corn. And since corn is an input in the production of tortillas, a sharp rise in the price of corn led to a fall in the supply of tortillas and higher prices for tortilla consumers.

The increase in the price of corn was good news in Iowa, where farmers began planting



A cook prepares tortillas made with four different types of corn in a restaurant in Mexico City.

more corn than ever before. But it was bad news for Mexican consumers, who found themselves paying more for their tortillas.

FYI The FYI feature provides a short but compelling application of the major concept just covered in a module. Students experience an immediate payoff when they can apply concepts they've just read about to real phenomena. For example, we use the tortilla crisis of 2007 to illustrate how changes in supply impact consumers as bread-and-butter (and tortilla) issues.