CONTENTS IN BRIEF

	ist of Key Graphs	xx	PART	A		
	reface	vvi				
	ontributors	vvviii		BLEMS AND CONTROVERSI	ES	
	conomics on the World Wide Web	xxxi	IN M	ACROECONOMICS		
PART	1		16	Extending the Analysis of Aggregate Supply	330	
			17	Disputes in Macro Theory and Policy	350	
	INTRODUCTION TO NOMICS AND THE ECON	DMY	18 19	Economic Growth Budget Deficits and the Public Debt	368 386	
Te	the Student	2				
1	The Nature and Method of Economic	s 3				
2	2 The Economizing Problem	22	PART	5		
3	Understanding Individual Markets: De	emand	MICR	OECONOMICS OF		
	and Supply		PRODUCT MARKETS			
4	Pure Capitalism and the Market System	m 61				
4	The Mixed Economy: Private and Pub	olic	20	Demand and Supply: Elasticities and		
	Sectors	77		Applications	404	
(The United States in the Global Econ	40.10	21	Consumer Behavior and Utility	, ,	
	The second secon	01119 100		Maximization	424	
		1				
			22		444	
PART	2		22 23	The Costs of Production	444 467	
	_		23	The Costs of Production Pure Competition	467	
NAT	IONAL INCOME,		23 24	The Costs of Production Pure Competition Pure Monopoly	467 493	
NAT EMP	IONAL INCOME, LOYMENT, AND FISCAL		23 24 25	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly	467 493 515	
NAT	IONAL INCOME, LOYMENT, AND FISCAL		23 24	The Costs of Production Pure Competition Pure Monopoly	467 493	
NAT EMP POL	IONAL INCOME, LOYMENT, AND FISCAL ICY Measuring Domestic Output, National		23 24 25	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly	467 493 515	
NAT EMP POL	IONAL INCOME, LOYMENT, AND FISCAL ICY	404	23 24 25	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency	467 493 515	
NAT EMP POL	IONAL INCOME, LOYMENT, AND FISCAL ICY Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy	124 ment	23 24 25 26	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency	467 493 515	
NAT EMP POL	IONAL INCOME, LOYMENT, AND FISCAL ICY Measuring Domestic Output, National Income, and the Price Level	124 ment 148	23 24 25 26 PART (The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency	467 493 515	
NAT EMP POL	IONAL INCOME, LOYMENT, AND FISCAL ICY Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation	124 ment 148	23 24 25 26 PART (The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency	467 493 515	
NAT EMP POL	IONAL INCOME, PLOYMENT, AND FISCAL ICY Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation	124 ment 148	23 24 25 26 PART (The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency OECONOMICS OF URCE MARKETS	467 493 515	
NAT EMP POL	IONAL INCOME, PLOYMENT, AND FISCAL ICY Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation Building the Aggregate Expenditures Model	124 ment 148	23 24 25 26 PART (MICR RESO 27	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency OECONOMICS OF URCE MARKETS The Demand for Resources	467 493 515	
NAT EMP POL	IONAL INCOME, LOYMENT, AND FISCAL ICY Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation Building the Aggregate Expenditures Model Aggregate Expenditures: The Multiplie	124 ment 148 172 er, Net	23 24 25 26 PART (MICR RESO 27 28	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency 6 OECONOMICS OF URCE MARKETS The Demand for Resources Wage Determination	467 493 515 541	
NAT EMP POL	Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation Building the Aggregate Expenditures Model Aggregate Expenditures: The Multiplic Exports, and Government	124 ment 148 172 er, Net 199	23 24 25 26 PART (MICR RESO 27	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency OECONOMICS OF URCE MARKETS The Demand for Resources	467 493 515 541	
NAT EMP POL	Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation Building the Aggregate Expenditures Model Aggregate Expenditures: The Multiplic Exports, and Government Aggregate Demand and Aggregate Sup	124 ment 148 172 er, Net 199	23 24 25 26 PART (MICR RESO 27 28	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency 6 OECONOMICS OF URCE MARKETS The Demand for Resources Wage Determination	467 493 515 541 564 581	
NAT EMP POL 3	Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation Building the Aggregate Expenditures Model Aggregate Expenditures: The Multiplic Exports, and Government Aggregate Demand and Aggregate Sup Fiscal Policy	124 ment 148 172 er, Net 199 pply 221 243	23 24 25 26 PART (MICR RESO 27 28	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency 6 OECONOMICS OF URCE MARKETS The Demand for Resources Wage Determination Rent, Interest, and Profit	467 493 515 541 564 581	
NAT EMP POL	Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation Building the Aggregate Expenditures Model Aggregate Expenditures: The Multiplic Exports, and Government Aggregate Demand and Aggregate Sup Fiscal Policy	124 ment 148 172 er, Net 199 pply 221 243	23 24 25 26 PART (PART 27 28 29	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency OECONOMICS OF URCE MARKETS The Demand for Resources Wage Determination Rent, Interest, and Profit	467 493 515 541 564 581	
NAT EMP POL	Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation Building the Aggregate Expenditures Model Aggregate Expenditures: The Multiplic Exports, and Government Aggregate Demand and Aggregate Sup Fiscal Policy	124 ment 148 172 er, Net 199 eply 221 243	23 24 25 26 PART (MICR ESO 27 28 29 PART 2	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency OECONOMICS OF URCE MARKETS The Demand for Resources Wage Determination Rent, Interest, and Profit	467 493 515 541 564 581	
NAT EMP POL	Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation Building the Aggregate Expenditures Model Aggregate Expenditures: The Multiplic Exports, and Government Aggregate Demand and Aggregate Sup Fiscal Policy	124 ment 148 172 er, Net 199 eply 221 243	23 24 25 26 PART (MICR ESO 27 28 29 PART 2	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency OECONOMICS OF URCE MARKETS The Demand for Resources Wage Determination Rent, Interest, and Profit	467 493 515 541 564 581	
NAT EMP POL	Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation Building the Aggregate Expenditures Model Aggregate Expenditures: The Multiplic Exports, and Government Aggregate Demand and Aggregate Sup Fiscal Policy	124 ment 148 172 er, Net 199 eply 221 243	23 24 25 26 PART (MICR RESO 27 28 29 PART 2	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency OECONOMICS OF URCE MARKETS The Demand for Resources Wage Determination Rent, Interest, and Profit OECONOMICS OVERNMENT	467 493 515 541 564 581	
NAT EMP POL	Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation Building the Aggregate Expenditures Model Aggregate Expenditures: The Multiplic Exports, and Government Aggregate Demand and Aggregate Sup Fiscal Policy 3 IEY, BANKING, AND IETARY POLICY	124 ment 148 172 er, Net 199 eply 221 243	23 24 25 26 PART (MICR ESO 27 28 29 PART 2	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency 6 OECONOMICS OF URCE MARKETS The Demand for Resources Wage Determination Rent, Interest, and Profit OECONOMICS OVERNMENT Government and Market Failure: Public	467 493 515 541 564 581	
NAT EMP POL	Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation Building the Aggregate Expenditures Model Aggregate Expenditures: The Multiplic Exports, and Government Aggregate Demand and Aggregate Sup Fiscal Policy 3 IEY, BANKING, AND IETARY POLICY Money and Banking	124 ment 148 172 er, Net 199 eply 221 243	23 24 25 26 PART (MICR RESO 27 28 29 PART 2	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency OECONOMICS OF URCE MARKETS The Demand for Resources Wage Determination Rent, Interest, and Profit OECONOMICS OVERNMENT Government and Market Failure: Public Goods, Externalities, and Information	467 493 515 541 564 581 603	
NAT EMP POL	Measuring Domestic Output, National Income, and the Price Level Macroeconomic Instability: Unemploy and Inflation Building the Aggregate Expenditures Model Aggregate Expenditures: The Multiplic Exports, and Government Aggregate Demand and Aggregate Sup Fiscal Policy 3 IEY, BANKING, AND IETARY POLICY Money and Banking How Banks Create Money	124 ment 148 172 er, Net 199 eply 221 243	23 24 25 26 PART (MICR RESO 27 28 29 PART 2	The Costs of Production Pure Competition Pure Monopoly Monopolistic Competition and Oligopoly Technology, R&D, and Efficiency 6 OECONOMICS OF URCE MARKETS The Demand for Resources Wage Determination Rent, Interest, and Profit OECONOMICS OVERNMENT Government and Market Failure: Public	467 493 515 541 564 581	

CONTENTS

possibilities table • Production possibilities curve •

Pure capitalism • The command economy • Mixed

Law of increasing opportunity cost • Allocative

Unemployment, Growth and the Future
Unemployment and productive inefficiency •
A growing economy • A qualification: International

Resource and product markets • Limitations

systems • The traditional economy

The Circular Flow Model

efficiency revisited

trade • Applications

Economic Systems

Other Characteristics

Specialization • Use of money

Extensive use of technology and capital goods •

XX

xxi

xxviii

xxxi

2

3

List of Key Graphs

Economics on the World Wide Web

AN INTRODUCTION TO

1 THE NATURE AND METHOD

ECONOMICS AND THE ECONOMY

Economics: Employment and Efficiency

Full employment: Using available resources • Full

production: Using resources efficiently • Production

Preface

PART 1

2

Contributors

To the Student

OF ECONOMICS

The Economic Perspective Scarcity and choice • Rational behavior • Marginalism: Benefits and costs	LAST WORD Women and Expanded Production Possibilities
Why Study Economics? Economics for citizenship • Professional and personal applications	3 UNDERSTANDING INDIVIDUAL MARKETS: DEMAND AND SUPPLY 42 Markets
Economic Methodology Theoretical economics • Policy economics	Demand Law of demand • The demand curve • Individual
Macroeconomics and Microeconomics Macroeconomics • Microeconomics • Positive and normative economics	and market demand • Determinants of demand • Change in demand • Changes in quantity demanded
Pitfalls to Objective Thinking Biases • Loaded terminology • Definitions • Fallacy of composition • Causation fallacies	Supply Law of supply • The supply curve • Determinants of supply • Changes in supply • Changes in quantity supplied
A Look Ahead LAST WORD Fast-Food Lines: An Economic Perspective	Supply and Demand: Market Equilibrium Surpluses • Shortages • Equilibrium price and quantity • Rationing function of prices • Changes
Appendix to Chapter 1: Graphs and Their Meaning Construction of a graph • Direct and inverse relationships • Dependent and independent variables • Other things equal • Slope of a line •	in supply, demand, and equilibrium • A reminder: "Other things equal" • Application: Pink salmon LAST WORD Ticket Scalping: A Bum Rap?
Vertical intercept • Equation of a linear relationship • Slope of a nonlinear curve	4 PURE CAPITALISM AND THE MARKET SYSTEM 61
THE ECONOMIZING PROBLEM The Foundation of Economics Unlimited wants • Scarce resources	Capitalist Ideology Private property • Freedom of enterprise and choice • Self-interest • Competition • Markets and prices • Limited government

The Competitive Market System

The Market System at Work

Determining what is to be produced • Organizing production • Distributing total output • Accommodating change

Competition and the "Invisible Hand"

LAST WORD Pink Flamingos and "Dollar Votes"

5 THE MIXED ECONOMY: PRIVATE AND **PUBLIC SECTORS**

77

Households as Income Receivers

The functional distribution of income • The personal distribution of income

Households as Spenders

Personal taxes • Personal saving • Personal consumption expenditures

The Business Population

Legal Forms of Businesses

Sole proprietorship • Partnership • Corporation • Large corporations

Economic Functions of Government

Legal and Social Framework

Maintaining Competition

Redistribution of Income

Reallocation of Resources

Spillovers or externalities • Public goods and services • Quasipublic goods • Allocation of resources to public and quasipublic goods

Stabilization

The Circular Flow Revisited

Government Finance

Government Growth: Purchases and Transfers

Federal Finance

Federal expenditures • Federal tax revenues

State and Local Finance

Fiscal federalism • Lotteries

LAST WORD The Financing of Corporate Activity

6 THE UNITED STATES IN THE **GLOBAL ECONOMY**

100

World Trade

Volume and pattern • Rapid trade growth • **Participants**

Back to the Circular Flow

Specialization and Comparative Advantage

Basic principle • Comparative costs • Terms of trade • Gains from specialization and trade

Foreign Exchange Market

Dollar-yen market • Changing rates: Depreciation and appreciation

Government and Trade

Trade impediments and subsidies • Why government trade interventions? • Costs to society

Multilateral Trade Agreements and

Free-Trade Zones

Reciprocal Trade Agreements Act and GATT • European Union • North American Free Trade Agreement • Hostile trade blocs or further integration?

American Firms in the World Economy

LAST WORD

Buy American: The Global Refrigerator

PART 2

NATIONAL INCOME, EMPLOYMENT, AND FISCAL

7 MEASURING DOMESTIC OUTPUT, NATIONAL INCOME, AND THE PRICE LEVEL 124

Macroeconomic Measurement

Gross Domestic Product

Avoidance of multiple counting • Exclusion of nonproduction transactions • Two sides to GDP: Spending and income

Expenditures Approach

Personal consumption expenditures $(C) \bullet Gross$ private domestic investment (I_q) • Government purchases (G) • Net exports (X_n) • The GDP equation: $C + I_g + G + X_n$

Income Approach

Compensation of employees • Rents • Interest • Proprietors' income • Corporate profits • Three adjustments

Other National Accounts

Net domestic product (NDP) • National income (NI) • Personal income (PI) • Disposable income (DI) • The circular flow revisited

хi

Nominal versus Real GDP

Adjustment process in a one-good economy • Realworld considerations and data

The Consumer Price Index

GDP and Economic Well-Being

Nonmarket transactions • Leisure • Improved product quality • Composition and distribution of output • Per capita output • GDP and the environment • The underground economy

LAST WORD Does the CPI Overstate Inflation?

8 MACROECONOMIC INSTABILITY: UNEMPLOYMENT AND INFLATION

148

The Business Cycle

Phases of the cycle • Causation: A first glance • Noncyclical fluctuations • Cyclical impact: Durables and nondurables

Unemployment

Types of unemployment • Definition of "full employment" • Measurement of unemployment • Economic cost of unemployment • Noneconomic costs • International comparisons

Inflation Defined and Measured

Meaning of inflation • Measurement of inflation • Facts of inflation • Causes: Theories of inflation • Complexities

Redistribution Effects of Inflation

Fixed-nominal-income receivers • Savers • Debtors and creditors • Anticipated inflation • Addenda

Output Effects of Inflation

Stimulus of demand-pull inflation • Cost-push inflation and unemployment • Hyperinflation and breakdown

LAST WORD The Stock Market and Macroeconomic Instability

9 BUILDING THE AGGREGATE **EXPENDITURES MODEL**

172

Historical Backdrop

Classical economics and Say's law • The Great Depression and Keynes

Simplifications

Tools of the Aggregate Expenditures Model

Consumption and Saving

Income-consumption and income-saving relationships • The consumption schedule • The saving schedule • Average and marginal propensities

 Nonincome determinants of consumption and saving • Shifts and stability

Investment

Expected rate of return • The real interest rate • Investment demand curve • Shifts in the investment demand curve • Investment schedule • Instability of investment

Equilibrium GDP: Expenditures-Output Approach

Tabular analysis • Graphical analysis

Equilibrium GDP: Leakages-Injections Approach

Tabular analysis • Graphical analysis

Planned versus Actual Investment

Disequilibrium and inventories • Attainment of equilibrium

LAST WORD John Maynard Keynes (1883–1946)

10 AGGREGATE EXPENDITURES: THE MULTIPLIER, **NET EXPORTS, AND GOVERNMENT**

Changes in Equilibrium GDP and the Multiplier The multiplier effect

International Trade and Equilibrium Output

Net exports and aggregate expenditures • The net export schedule . Net exports and equilibrium GDP • International economic linkages

Adding the Public Sector

Simplifying assumptions • Government purchases and equilibrium GDP • Taxation and equilibrium GDP • Balanced-budget multiplier

Equilibrium versus Full-Employment GDP

Recessionary gap • Inflationary gap

Historical Applications

The Great Depression • Vietnam War inflation

Critique and Preview

LAST WORD Squaring the Economic Circle

11 AGGREGATE DEMAND AND AGGREGATE SUPPLY

221

Aggregate Demand

Aggregate demand curve • Derivation of the aggregate demand curve from the aggregate expenditures model • Determinants of aggregate demand • Aggregate demand shifts and the aggregate expenditures model

Aggregate Supply

Aggregate supply curve • Determinants of aggregate

Equilibrium: Real Output and the Price Level

Changes in Equilibrium

Shifting of aggregate demand • Multiplier with price-level changes • A ratchet effect? • Shifting of aggregate supply

LAST WORD Why Is Unemployment in Europe So High?

12 FISCAL POLICY

243

Legislative Mandates

Discretionary Fiscal Policy

Expansionary fiscal policy • Contractionary fiscal policy • Financing of deficits and disposing of surpluses • Policy options: G or T

Nondiscretionary Fiscal Policy: Built-In Stabilizers

Automatic or built-in stabilizers • Actual versus full-employment budget • Proposed balancedbudget requirement

Problems, Criticisms, and Complications

Problems of timing • Political problems • Crowding-out effect • Fiscal policy, aggregate supply, and inflation • Fiscal policy in the open economy • Supply-side fiscal policy

LAST WORD The Leading Indicators

PART 3

MONEY, BANKING, AND MONETARY POLICY

13 MONEY AND BANKING

264

The Functions of Money

The Supply of Money

Money Definition M1 • Money Definition M2 • Money Definition M3 • Near monies: Implications · Credit cards

What "Backs" the Money Supply?

Money as Debt • Value of money • Money and prices • Stabilization of money's value

The Demand for Money

Transactions demand, $D_t \bullet$ Asset demand, $D_a \bullet$ Total money demand, D_m

The Money Market

Responses to a shortage of money • Responses to a surplus of money

The Federal Reserve and the Banking System

Historical background • Board of governors • Assistance and advice • The 12 Federal Reserve banks • Commercial banks and thrifts • Fed functions and the money supply . Federal reserve independence

Recent Developments in Money and Banking

The relative decline of banks and thrifts • Globalization of financial markets • Electronic money

LAST WORD The Global Greenback

14 HOW BANKS CREATE MONEY

287

The Balance Sheet of a Commercial Bank

Prologue: The Goldsmiths

A Single Commercial Bank

Formation of a commercial bank • Money-creating transactions of a commercial bank . Profits, liquidity, and the Federal funds market

The Banking System: Multiple-Deposit Expansion

The banking system's lending potential • The monetary multiplier • Some modifications • Need for monetary control

LAST WORD The Bank Panics of 1930 to 1933

15 MONETARY POLICY

305

The Goal of Monetary Policy

Consolidated Balance Sheet of the Federal Reserve Banks

Assets • Liabilities

Tools of Monetary Policy

Open-market operations • The reserve ratio • The discount rate • Easy money and tight money Relative importance

Monetary Policy, Real GDP, and the Price Level

Cause-effect chain • Effects of an easy money policy • Effects of a tight money policy • Refinements and feedback • Monetary policy and aggregate supply

Effectiveness of Monetary Policy

Strengths of monetary policy • Shortcomings and problems • Recent focus: The federal funds rate • Monetary policy and the international economy

The "Big Picture"

LAST WORD For the Fed, Life Is a Metaphor

PART 4

PROBLEMS AND CONTROVERSIES IN MACROECONOMICS

16 EXTENDING THE ANALYSIS OF AGGREGATE SUPPLY

330

Short-Run and Long-Run Aggregate Supply Definitions: Short run and long run • Short-run aggregate supply • Long-run aggregate supply • Equilibrium in the extended AD-AS model

Applying the Extended AD-AS Model

Demand-pull inflation in the extended AD-AS model • Cost-push inflation in the extended AD-AS model • Recession and the extended AD-AS model

The Phillips Curve

The basic idea • Tradeoffs • Stagflation: A shifting Phillips Curve? • Adverse aggregate supply shocks • Stagflation's demise

Natural-Rate Hypothesis

Adaptive expectations theory • Rational expectations theory • Changing interpretations

Supply-Side Economics

Tax-transfers disincentives • Laffer Curve • Criticisms of the Laffer Curve • Overregulation • Reaganomics

LAST WORD Price and Wage Controls

17 DISPUTES IN MACRO THEORY AND POLICY

350

Some History: Classics and Keynes

Classical view • Keynesian view

What Causes Macro Instability?

Mainstream view • Monetarist view • Realbusiness-cycle view • Coordination failures

Does the Economy "Self-Correct"?

New classical view of self-correction • Mainstream view of self-correction

Rules or Discretion?

In support of policy rules • In defense of discretionary stabilization policy • Increased macro stability

Summary of Alternative Views

LAST WORD Profit Sharing: Making Wages Flexible

18 ECONOMIC GROWTH

368

Growth Economics

Two definitions • Growth as a goal • Arithmetic of growth

Ingredients of Growth

Supply factors • Demand factor • Efficiency factor

Graphical Analysis

Growth and production possibilities • Extended AD-AS model

Growth in the United States

Accounting for Growth

Input versus productivity • Quantity of labor • Technological advance • Quantity of capital • Education and training • Resource allocation and scale economies • Detriments to growth • Other contributing factors • Macroeconomic instability and growth

The Productivity Slowdown

Significance • Causes of the slowdown

A "New Economy"?

Growth Policies

Demand-side policies • Supply-side policies

LAST WORD Is Growth Desirable?

19 BUDGET DEFICITS AND THE **PUBLIC DEBT**

386

Deficits and Debt: Definitions

Budget Philosophies

Annually balanced budget • Cyclically balanced budget • Functional finance

The Public Debt: Facts and Figures

Causes • Quantitative aspects

Economic Implications: False Issues

Going bankrupt? • Shifting burdens

Implications and Issues

Income distribution • Incentives • External debt • Curb on fiscal policy • Crowding out and the stock of capital

Recent Federal Deficits

Large size

Budget Deficits and Trade Deficits

Higher interest rates • Dollar appreciation • Trade deficits • Related effects • Policy responses • Positive role of debt

LAST WORD "The Entitlements Problem"

PART 5

MICROECONOMICS OF PRODUCT MARKETS

20 DEMAND AND SUPPLY: ELASTICITIES AND APPLICATIONS

404

Price Elasticity of Demand

The price elasticity coefficient and formula • Interpretations of E_d • Refinement: Midpoint formula • Graphical analysis • The total-revenue test • Price elasticity and the total-revenue curve • Determinants of price elasticity of demand • Applications of price elasticity of demand

Price Elasticity of Supply

Supply elasticity: The market period • Supply elasticity: The short run • Supply elasticity: The long run

Cross and Income Elasticity of Demand

Cross elasticity of demand • Income elasticity of demand

Applications: Government-Controlled Prices

Price ceilings and shortages • Price floors and surpluses • Controversial tradeoffs

LAST WORD Market Forces and the Value of Education

21 CONSUMER BEHAVIOR AND UTILITY MAXIMIZATION

424

Two Explanations of the Law of Demand

Income and substitution effects • Law of diminishing marginal utility

Theory of Consumer Behavior

Consumer choice and budget restraint • Utility-maximizing rule • Numerical example • Algebraic restatement

Utility Maximization and the Demand Curve

Deriving the demand schedule and curve

Applications and Extensions

The compact disc takeover • The diamond-water paradox • The value of time • Medical care purchases • Transfers and gifts

LAST WORD The Inefficiency of Christmas Gift-Giving

Appendix to Chapter 21: Indifference Curve Analysis The budget line: What is attainable • Indifference curves: What is preferred • The indifference map • Equilibrium at tangency • The measurement of utility • The derivation of the demand curve

22 THE COSTS OF PRODUCTION

444

Economic Costs

Explicit and implicit costs • Normal profit as a cost • Economic, or pure, profit • Short run and long run

Short-Run Production Relationships

Law of diminishing returns

Short-Run Production Costs

Fixed, variable, and total cost • Per-unit, or average, costs • Marginal cost • Shifting the cost curves

Long-Run Production Costs

Firm size and costs • The long-run cost curve • Economies and diseconomies of scale • Applications and illustrations • Minimum efficient scale and industry structure

LAST WORD Irrelevancy of Sunk Costs

23 PURE COMPETITION

467

Four Market Models

Pure Competition: Characteristics and Occurrence

Relevance of pure competition

Demand as Seen by a Purely Competitive Seller

Perfectly elastic demand • Average, total, and marginal revenue • Graphical portrayal

Profit Maximization in the Short Run

Total-revenue-total cost-approach: Profitmaximization case • Marginal-revenuemarginal-cost approach

Marginal Cost and Short-Run Supply

Generalized depiction • Diminishing returns, production costs, and product supply • Supply curve shifts • Firm and industry: Equilibrium price

Profit Maximization in the Long Run

Assumptions • Goal • Long-run equilibrium • Long-run supply for a constant-cost industry • Long-run supply for an increasing-cost industry • Long-run supply for a decreasing-cost industry

YW

Pure Competition and Efficiency

Product efficiency: $P = minimum ATC \cdot Allocative$ efficiency: $P = MC \cdot Qualifications$

Surplus

LAST WORD Pure Competition and Consumer

24 PURE MONOPOLY

493

Pure Monopoly: Introduction

Characteristics • Examples of monopoly • Importance of monopoly and its study

Barriers to Entry

Economies of scale • Legal barriers to entry: Patents and licenses • Ownership or control of essential resources • Pricing and other strategic barriers • Two implications

Monopoly Demand

Marginal revenue is less than price • The monopolist is a "price maker" • The monopolist prices in the elastic region of demand

Output and Price Determination

Cost data • MR = MC rule • No monopoly supply curve • Misconceptions concerning monopoly pricing • Possibility of monopolist losses

Economic Effects of Monopoly

Price, output, and efficiency • Income distribution • Cost complications • Policy options

Price Discrimination

Conditions • Examples • Consequences of price discrimination

Regulated Monopoly

Socially optimal price: $P = MC \bullet$ Fair-return price: $P = ATC \bullet Dilemma of regulation$

Forever?

LAST WORD De Beers' Diamonds: Are Monopolies

25 MONOPOLISTIC COMPETITION AND OLIGOPOLY

515

Monopolistic Competition: Characteristics and Occurrence

Relatively large numbers of sellers • Differentiated products • Easy entry and exit • Nonprice competition and advertising • Monopolistically competitive industries

Monopolistic Competition: Price and Output Determination

The firm's demand curve • The short run: Profit or loss • The long run: Only a normal profit

Monopolistic Competition and Economic Efficiency

Neither productive nor allocative efficiency • Excess capacity

Monopolistic Competition: Nonprice Competition

Product differentiation • Product development • Monopolistic competition and economic analysis

Oligopoly: Characteristics and Occurrence

A few large producers • Homogeneous or differentiated products • Control over price, but mutual interdependence • Entry barriers • Mergers Measures of industry concentration

Oligopoly Behavior: A Game Theory Overview

Mutual interdependence revisited • Collusive tendencies • Incentive to cheat

Three Oligopoly Models

Kinked-demand theory: Noncollusive oligopoly • Cartels and other collusion • Price leadership model

Oligopoly and Advertising

Positive effects of advertising • Potential negative effects of advertising • Graphical analysis

Oligopoly and Efficiency

Productive and allocative efficiency • Qualifications

LAST WORD Brewing?

The Beer Industry: Oligopoly

26 TECHNOLOGY, R&D, AND EFFICIENCY 541

Technological Advance: Invention, Innovation, and Diffusion

Invention • Innovation • Diffusion • R&D expenditures • Modern view of technological advance

Role of Entrepreneurs and Other Innovators

Forming start-ups • Innovating within existing firms Anticipating the future
 Exploiting university and government scientific research

A Firm's Optimal Amount of R&D

Interest-rate cost of funds • Expected rate of return · Optimal R&D expenditures

Increased Profit via Innovation

Increased revenue via product innovation • Reduced cost via process innovation

Imitation and R&D Incentives

Benefits of being first

Role of Market Structure

Market structure and technological advance • Inverted-U theory • Market structure and technological advance: The evidence

Technological Advance and Efficiency

Productive efficiency • Allocative efficiency • Creative destruction

LAST WORD On the Path to the Personal Computer and Internet

PART 6

MICROECONOMICS OF RESOURCE MARKETS

27 THE DEMAND FOR RESOURCES

564

Significance and Complexity of Resource Pricing

Marginal Productivity Theory of Resource Demand

Resource demand as a derived demand • Marginal revenue product (MRP) • Rule for employing resources: MRP = MRC • MRP as resource demand schedule • Resource demand under imperfect product market competition • Market demand for a resource

Determinants of Resource Demand

Changes in product demand • Changes in productivity • Changes in the prices of other resources • Real-world applications

Elasticity of Resource Demand

Optimal Combination of Resources

The least-cost rule • The profit-maximizing rule • Numerical illustration

Marginal Productivity Theory of Income Distribution

LAST WORD Input Substitution: The Case of ATMs

28 WAGE DETERMINATION

581

Labor, Wages, and Earnings

, , ,

General Level of Wages

Role of productivity • Real wages and productivity • Secular growth of real wages • Recent stagnation of real wage growth

A Purely Competitive Labor Market

Market demand for labor • Market supply of labor

• Labor market equilibrium

Monopsony Model

Upsloping labor supply to firm • MRC higher than the wage rate • Equilibrium wage and employment • Examples

Three Union Models

Demand-enhancement model • Exclusive or craft union model • Inclusive or industrial union model • Wage increases and unemployment

Bilateral Monopoly Model

Indeterminate outcome of bilateral monopoly • Desirability of bilateral monopoly

The Minimum-Wage Controversy

Case against the minimum wage • Case for the minimum wage • Evidence and conclusions

Wage Differentials

Noncompeting groups • Compensating differences

Market imperfections

Pay for Performance

The principal-agent problem revisited • Addenda: Negative side effects

LAST WORD Of African-Style Hairbraiders and Stodgy Economists

29 RENT, INTEREST, AND PROFIT

603

Economic Rent

Perfectly inelastic supply • Changes in demand • Land rent: A surplus payment • A single tax on land • Productivity differences and rent differences • Alternative uses of land

Interes

Loanable funds theory of interest • Extending the model • Range of interest rates • Pure rate of interest • Role of the interest rate • Application: Usury laws

Economic Profit

Role of the entrepreneur • Sources of economic profit • Functions of profit

Income Shares

LAST WORD Determining the Price of Credit

PART 7

MICROECONOMICS OF GOVERNMENT

30 GOVERNMENT AND MARKET FAILURE: PUBLIC GOODS, EXTERNALITIES, AND INFORMATION PROBLEMS

620

Public Goods: Extending the Analysis

Demand for public goods • Supply of public goods • Optimal quantity of a public good • Benefit-cost analysis

Externalities Revisited

Spillover costs • Spillover benefits • Individual bargaining: Coase Theorem • Liability rules and lawsuits • Government intervention • A market for externality rights • Society's optimal amount of externality reduction

A Closer Look at Pollution

Dimensions of the problem • Causes: The law of conservation of matter and energy • Antipollution policy in the United States • Solid-waste disposal and recycling

Information Failures

Inadequate information involving sellers • Inadequate information involving buyers • **Oualification**

"Lemons"

LAST WORD Used Cars: The Market for

Revealing Preferences Through Majority Voting

Inefficient voting outcomes • Paradox of voting • Median-voter model

31 PUBLIC CHOICE THEORY AND TAXATION 643

Public Sector Failure

Special interests and rent seeking • Clear benefits, hidden costs • Limited and bundled choice • Bureaucracy and inefficiency • Imperfect institutions

Apportioning the Tax Burden

Benefits received versus ability to pay • Progressive, proportional, and regressive taxes

Tax Incidence and Efficiency Loss

Elasticity and tax incidence • Efficiency loss of a tax • Probable incidence of U.S. taxes • The U.S. tax structure

Tax Reform

The value-added tax • The flat tax • Criticisms of the VAT and the flat tax

The Issue of Freedom

The conservative position • The liberal position

LAST WORD "Public Sector Failure" in the

News

PART 8

MICROECONOMIC ISSUES AND **POLICIES**

32 ANTITRUST POLICY AND REGULATION 664

Definition of Industrial Concentration

Industrial Concentration: Beneficial or Harmful?

The case against industrial concentration • Defenses of industrial concentration

The Antitrust Laws

Historical background • Sherman Act of 1890 • Clayton Act of 1914 • Federal Trade Commission Act of 1914 • Celler-Kefauver Act of 1950

Antitrust Policy: Issues and Impacts

Issues of interpretation • Issues of enforcement: Tradeoffs among goals • Effectiveness of antitrust laws

Natural Monopolies and Their Regulation

Natural monopoly • Problems • Legal cartel theory

Deregulation

Controversy • Deregulation outcomes

Social Regulation

Distinguishing features • Overregulation?

Industrial Policy

Antecedents • Recent emphasis • Controversy

LAST WORD Deregulation of the Airlines

33 AGRICULTURE: ECONOMICS AND POLICY 684

Economics of Agriculture

Short-run problem: Price and income instability • Long-run problem: A declining industry

Economics of Farm Policy

Rationale for farm subsidies • Background: The parity concept • Economics of price supports • Reduction of surpluses

Criticism, Politics, and Reform

Criticisms • The politics of farm policy • Recent reform: Freedom to farm

LAST WORD The Sugar Program: A Sweet Deal

34 INCOME INEQUALITY AND POVERTY 701

Facts About Income Inequality

Personal income distribution • Trends in income inequality • Causes of growing inequality • The Lorenz Curve

Income Mobility: The Time Dimension **Effect of Government Redistribution**

Causes of Income Inequality

Ability differences • Education and training • Discrimination • Tastes and risks • Unequal distribution of wealth • Market power • Luck, connections, and misfortunes

Equality versus Efficiency

The case for equality: Maximizing total utility • The case for inequality: Incentives and efficiency • The equality-efficiency tradeoff

The Economics of Poverty

Definition of poverty • Incidence of poverty • Poverty trends • The "invisible" poor

The Income-Maintenance System

Social insurance programs • Public assistance programs

Welfare: Goals and Conflicts

Common features • Conflicts among goals

Welfare: Criticism and Reform

Criticisms leading to reform • Welfare reform

LAST WORD The Future of Social Security

35 THE ECONOMICS OF HEALTH CARE

The Health Care Industry

Twin Problems: Costs and Access

High and Rising Health Care Costs

Health care spending • Quality of care: Are we healthier? • Economic implications of rising costs • The basic problem

Limited Access

Why the Rapid Rise in Costs?

Peculiarities of the health care market • The increasing demand for health care . Role of health insurance • Supply factors in rising health care prices • Relative importance

Health Care System Reform

Universal access • Cost containment: Altering incentives • Status report on health care reform

LAST WORD A Market for Human Organs?

36 LABOR MARKET ISSUES: UNIONISM, DISCRIMINATION, IMMIGRATION

739

721

Unionism in America

Business unionism • Union membership • The decline of unionism

Collective Bargaining

The work agreement • The bargaining process

Economic Effects of Unions

The union wage advantage • Efficiency and productivity

Labor Market Discrimination

Types of discrimination • Costs of discrimination

Economic Analysis of Discrimination

Taste-for-discrimination model • Statistical discrimination • Occupational segregation: The crowding model

Antidiscrimination Policies and Issues

The affirmative action controversy • Recent developments

Immigration

Number of immigrants • Economics of immigration • Complications and modifications • Immigration: Two views

LAST WORD Orchestrating Impartiality

PART 9

INTERNATIONAL ECONOMICS AND THE WORLD ECONOMY

37 INTERNATIONAL TRADE

764

Facts of International Trade

The Economic Basis for Trade

Comparative Advantage: Graphical Analysis

Two isolated nations • Specializing according to comparative advantage • Terms of trade • Gains from trade • Trade with increasing costs • The case for free trade

Supply and Demand Analysis of Exports and **Imports**

Supply and demand in the United States • Supply and demand in Canada • Equilibrium world price, exports, and imports

Trade Barriers

Economic impact of tariffs • Economic impact of quotas

The Case for Protection: A Critical Review

Military self-sufficiency argument • Increased domestic employment argument • Diversification for stability argument • Infant industry argument • Protection against dumping argument • Cheap foreign labor argument • A summing up

Costs of Protection

Cost to society • Impact on income distribution

U.S. International Trade Policy

Generalized trade liberalization • Aggressive export promotion • Bilateral negotiations

LAST WORD Petition of the Candlemakers, 1845

38 EXCHANGE RATES, THE BALANCE OF PAYMENTS, AND TRADE DEFICITS

789

Financing International Trade

U.S. export transaction • U.S. import transaction

The Balance of Payments

Current account • Capital account • Official reserves account • Payments deficits and surpluses

Flexible Exchange Rates

Depreciation and appreciation • Determinants of exchange rates • Flexible rates and the balance of payments • Disadvantages of flexible exchange rates

Fixed Exchange Rates

Use of reserves • Trade policies • Exchange controls and rationing • Domestic macroeconomic adjustments

International Exchange-Rate Systems

The gold standard: Fixed exchange rates • The Bretton Woods system • The current system: The managed float

Recent U.S. Trade Deficits

Causes of the trade deficit • Implications of U.S. trade deficits

LAST WORD Speculation in Currency Markets

39 THE ECONOMICS OF DEVELOPING COUNTRIES

812

The Rich and the Poor

Growth, decline, and income gaps • Implications

Obstacles to Economic Development

Natural resources • Human resources • Capital accumulation • Technological advance • Sociocultural and institutional factors

The Vicious Circle

Role of Government

A positive role • Public sector problems • A mixed bag

Role of Advanced Nations

Expanding trade • Foreign aid: Public loans and grants • Private capital flows

Where From Here?

DVC policies for promoting growth • IAC policies for fostering DVC Growth

LAST WORD Famine in Africa

40 TRANSITION ECONOMIES: RUSSIA AND CHINA

834

Ideology and Institutions

State Ownership and Central Planning

Planning goals and techniques

Problems with Central Planning

The coordination problem • The incentive problem

Collapse of the Soviet Economy

Declining growth • Poor product quality • Lack of consumer goods • Large military burden • Agricultural drag

The Russian Transition to a Market System

Privatization • Price reform • Promotion of competition • Joining the world economy • Pricelevel stabilization • Major problems • Future prospects

Market Reforms in China

Agricultural and rural reform • Reform of urban industries • Special economic zones • Development of supporting institutions • Transformation of the **SOEs**

Outcomes and Prospects

Positive outcomes of reform • Problems

Conclusion

LAST WORD

I Think Everything Will Be Okav.

Glossary

G-1

Index

I-1

LIST OF KEY GRAPHS

2-1	Production Possibilities Curve	27	22-2	Short-Run Production Relationships	449
2–6	Circular Flow of Output and Income	37	22-5	Short-Run Cost Curves	454
3-5	Supply and Demand Model	54	22-8	Long-Run Average-Total-Cost Curve	458
9–2	Consumption and Saving Schedules	177	23-3	Short-Run Pure Competition Model	475
9-5	Investment Demand Curve	183	23-6	Competitive Firm's Short-Run	
9_9	Aggregate Expenditures—Domestic			Supply Curve	479
	Output Model	191	23-12	Long-Run Equilibrium in Pure	
10–8	Recessionary and Inflationary Gaps	214		Competition	486
11–7	Aggregate Demand and Aggregate		24-4	Pure Monopoly Model	502
	Supply Model	233	25-1	Monopolistic Competition Model	519
13-2	Money Demand and Money		25-4	Kinked Demand Curve	528
	Supply Model	273	28-3	Competitive Labor Demand and Labor	
15–2	Monetary Policy and Equilibrium			Supply	586
	GDP	314	37-2	Specialization and the Gains from	
15–4	Mainstream Theory of Employment			International Trade	769
	and Stabilization Policies	326	38-3	Market for Foreign Exchange	795
21–1	Total and Marginal Utility	426			

P A R T

An
Introduction to
Economics and
the Economy

TO THE STUDENT

Economics is largely concerned with efficiency—accomplishing goals using the best methods. Several features of this book and its ancillaries are designed to improve your efficiency in learning economics (and therefore your course grade):

- Appendix on graphs Being comfortable with graphical analysis and a few quantitative concepts is a big advantage in understanding principles of economics. The appendix to Chapter 1 reviews graphing, line slopes, and linear equations. Be sure to not skip it.
- *Introductions* The introductory paragraphs of each chapter place the chapter in the proper context, state its main objectives, and tell you how it is organized. These introductions lead you into the economic analysis.
- Terminology A significant portion of any introductory course is terminology. Key terms are set in boldface type, listed at the end of each chapter, and defined in the glossary at the end of the book.
- Reviews Important things should be said more than once. Each chapter contains a summary and two or three Quick Reviews. These reviews will help you focus on essential ideas and study for exams. If any review statement seems unclear, you should reread the corresponding section of the text.
- Key Graphs Graphs that have special relevance are labeled Key Graphs, and each includes a multiple-choice Quick Quiz. Your instructor may or may not emphasize all these figures, but you should pay special attention to those that are discussed in class; you can be certain that there will be exam questions on them.
- Figure legends The legends accompanying the figures in this book are self-contained analyses of the figures. Study these legends carefully—they are quick synopses of important ideas.

- Globalization The economics of individual nations are becoming part of an overall global economy. To gain appreciation of this wider economic environment, be sure to take a look at the Global Perspectives, which compare the United States to other selected nations.
- Last Words Each chapter concludes with a Last Word minireading. While it is tempting to ignore these sections, don't. Some of them are revealing applications of economic concepts; others are short case studies. A few present views which contrast with mainstream thinking; and most are fun to read. All will broaden your grasp of economics.
- Questions A comprehensive list of questions is located at the end of each chapter. The old cliché that you "learn by doing" is very relevant to economics. Answering these questions will enhance your understanding. Several of the questions are designated as Key Questions and are answered in the Study Guide and the Instructor's Resource Manual, and they can also be found at our Website, http://www.mhhe.com/economics/mcconnell. You can turn to these particular questions when they are cited in each chapter, or later, after you have read the full chapter.
- **Study Guide** We enthusiastically recommend the *Study Guide* accompanying this text. This "portable tutor" contains not only a broad sampling of various kinds of questions but a host of useful learning aids.

You will find in Chapter 1 that economics involves a special way of thinking—a unique approach to analyzing problems. The overriding goal of this book is to help you acquire that skill. If our cooperative efforts—yours, ours, and your instructor's—are successful, you will be able to comprehend a whole range of economic, social, and political problems that otherwise would have remained murky and elusive.

The Nature and Method of Economics

Human beings, those unfortunate creatures, are plagued with wants. We want, among other things, love, social recognition, and the material necessities and comforts of life. Our efforts to meet our material wants, that is, to improve our well-being or "make a living," are the concern of economics.

Biologically, we need only air, water, food, clothing, and shelter. But, in contemporary society, we also seek the many goods and services associated with a comfortable or affluent standard of living. Fortunately, society is blessed with productive resources—labor and managerial talent, tools and machinery, land and mineral deposits—which are used to produce goods and services. This production satisfies many of our material wants and occurs through the organizational mechanism called the economic system or, more simply, the economy.

The blunt reality, however, is that the total of all our material wants is many times greater than the productive capacity of our limited resources. Thus, the complete satisfaction of material wants is impossible. This unyielding reality provides our definition of **economics**: the social science concerned with the efficient use of limited or scarce resources to achieve maximum satisfaction of human material wants.

Although it may not be evident, most of the headline-grabbing issues of our time—inflation, unemployment, health care, social security, budget deficits, discrimination, tax reform, poverty and inequality, pollution, and government regulation and deregulation of business—are rooted in the one challenge of using scarce resources efficiently.

In this first chapter, however, we will not plunge into problems and issues; instead, we will discuss some important preliminaries. Specifically, we first look at the economic perspective—how economists think about problems. Next, we state some of the benefits of studying economics. Then we consider the specific methods economists use to examine economic behavior and the economy, distinguishing between macroeconomics and microeconomics. Finally, we examine the problems, limitations, and pitfalls that hinder sound economic reasoning.

THE ECONOMIC PERSPECTIVE

Economists view things through a unique perspective. This **economic perspective** or *economic way of thinking* has several critical and closely interrelated features.

Scarcity and Choice

From our definition of economics, it is easy to see why economists view the world through the lens of scarcity. Since human and property resources are scarce (limited), it follows that the goods and services we produce must also be scarce. Scarcity limits our options and necessitates that we make choices. Because we "can't have it all," we must decide what we will have.

At the core of economics is the idea that "there is no free lunch." You may get treated to lunch, making it "free" to you, but there is a cost to someone—ultimately to society. Scarce inputs of land, equipment, farm labor, the labor of cooks and waiters, and managerial talent are required. Because these resources could be used in alternative production activities, they and the other goods and services they could have produced are sacrificed in making the "free" lunch available. Economists call these sacrifices opportunity costs.

Rational Behavior

Economics is grounded on the assumption of "rational self-interest." That is, individuals make rational decisions to achieve the greatest satisfaction or the maximum fulfillment of their goals. For instance, they spend their incomes to get the greatest benefit from the goods and services they can afford.

Rational behavior means that different people will make different choices because their preferences, circumstances, and available information differ. You may have decided that it is in your best interest to attend college before entering the full-time labor force, while a high school classmate has chosen to forgo additional schooling and go to work. Why the different choices? Your academic abilities, along with your family's income, may be greater than your classmate's. You may also know that college-educated workers have better job opportunities and lower unemployment rates than less educated workers. Hence, you opted for college, while your former classmate—the one with less academic ability, less money, and less information—chose a job. Both choices reflect the pursuit of self-interest and are rational, but they are based on differing circumstances and information.

Of course, rational decisions may change as circumstances change. Suppose the Federal government decides it is in the national interest to increase the supply of college-educated workers. It might offer 2 years of "free" community college to all low-income students. Under these new conditions, your high school classmate might now opt for college rather than a job.

It is important to remember that rational self-interest is not the same as selfishness. People make personal sacrifices to help family members or friends, and they contribute to charities because they derive pleasure from doing so. Parents help pay for their children's education for the same reason. These self-interested, but unselfish, acts help maximize the givers' satisfaction as much as any personal purchase of goods or services.

Marginalism: Benefits and Costs

The economic perspective focuses largely on marginal analysis—comparisons of marginal benefits and marginal costs. (Used this way, "marginal" means "extra," "additional," or "a change in.") Most choices or decisions involve changes in the status quo. Should you go to school for another year or not? Should you spend more or less money on compact discs each month? Similarly, businesses regularly must decide whether to employ more or fewer workers or to produce more or less output.

Each option involves marginal benefits and, because of scarcity, marginal costs. In making choices rationally, the decision maker must compare these two amounts. Example: Your time is scarce. What will you do with 2 "free" hours on a Saturday afternoon? You could watch Gigantic State University's Fighting Aardvarks play basketball on television. The marginal benefit to you would be the pleasure of seeing the game. The *marginal cost* would be the benefit from the other things you have to sacrifice to watch the game, including perhaps studying, jogging, or taking a nap. If the marginal benefit exceeds the marginal cost, then it is rational to watch the game. But if you determine that the marginal cost of watching the game is greater than the marginal benefit, then you should select one of the other options.

On the national level, government regularly makes decisions involving marginal benefits and marginal costs. More spending on health care may mean less spending on libraries, aid to the poor, or military security. In a world of scarcity, the decision to obtain