

Contents

PART I INTRODUCTION TO ECONOMICS 34

Chapter 1: The Principles and Practice of Economics 34

1.1 The Scope of Economics	35
Economic Agents and Economic Resources	35
Definition of Economics	36
Positive Economics and Normative Economics	37
Microeconomics and Macroeconomics	38
1.2 Three Principles of Economics	38
1.3 The First Principle of Economics: Optimization	39
Trade-offs and Budget Constraints	40
Opportunity Cost	40
Cost-Benefit Analysis	41
Evidence-Based Economics: Is Facebook free?	42
1.4 The Second Principle of Economics: Equilibrium	45
The Free-Rider Problem	46
1.5 The Third Principle of Economics: Empiricism	46
1.6 Is Economics Good for You?	47
Summary	48
Key Terms	48
Questions	49
Problems	49

Chapter 2: Economic Methods and Economic Questions 52

2.1 The Scientific Method	53
Models and Data	53
An Economic Model	55
Evidence-Based Economics: How much more do workers with a college education earn?	56
Means	57
Argument by Anecdote	57
2.2 Causation and Correlation	58
The Red Ad Campaign Blues	58
Causation versus Correlation	59
Experimental Economics and Natural Experiments	60
Evidence-Based Economics: How much do wages increase when an individual is compelled by law to get an extra year of schooling?	61

2.3 Economic Questions and Answers	62
Summary	63
Key Terms	63
Questions	64
Problems	64

Appendix: Constructing and Interpreting Graphs	66
A Study About Incentives	66
Experimental Design	66
Describing Variables	67
Cause and Effect	69
Appendix Key Terms	72
Appendix Problems	73

Chapter 3: Optimization: Doing the Best You Can 74

3.1 Two Kinds of Optimization: A Matter of Focus	75
Choice & Consequence: Do People Really Optimize?	77
3.2 Optimization in Levels	78
Comparative Statics	80
3.3 Optimization in Differences: Marginal Analysis	82
Marginal Cost	82
Evidence-Based Economics: How does location affect the rental cost of housing?	85
Summary	88
Key Terms	88
Questions	89
Problems	89

Chapter 4: Demand, Supply, and Equilibrium 92

4.1 Markets	93
Competitive Markets	94
4.2 How Do Buyers Behave?	95
Demand Curves	96
Willingness to Pay	96
From Individual Demand Curves to Aggregated Demand Curves	97
Building the Market Demand Curve	98
Shifting the Demand Curve	99

Evidence-Based Economics: How much more gasoline would people buy if its price were lower?	101
4.3 How Do Sellers Behave?	103
Supply Curves	103
Willingness to Accept	104
From the Individual Supply Curve to the Market Supply Curve	104
Shifting the Supply Curve	104
4.4 Supply and Demand in Equilibrium	107
Curve Shifting in Competitive Equilibrium	109
4.5 What Would Happen If the Government Tried to Dictate the Price of Gasoline?	111
Choice & Consequence: The Unintended Consequences of Fixing Market Prices	113
Summary	114
Key Terms	115
Questions	115
Problems	116

PART II INTRODUCTION TO MACROECONOMICS 118

Chapter 5: The Wealth of Nations: Defining and Measuring Macroeconomic Aggregates 118

5.1 Macroeconomic Questions	119
5.2 National Income Accounts: Production = Expenditure = Income	121
Production	121
Expenditure	122
Income	122
Circular Flows	123
National Income Accounts: Production	124
National Income Accounts: Expenditure	126
Evidence-Based Economics: In the United States, what is the total market value of annual economic production?	128
National Income Accounting: Income	130
Letting the Data Speak: Saving vs. Investment	130
5.3 What Isn't Measured by GDP?	131
Physical Capital Depreciation	132
Home Production	132
The Underground Economy	133
Negative Externalities	133
Gross Domestic Product vs. Gross National Product	134
Leisure	135
Does GDP Buy Happiness?	135
5.4 Real vs. Nominal	136
The GDP Deflator	138
The Consumer Price Index	140

Inflation	141
Adjusting Nominal Variables	141
Summary	142
Key Terms	143
Questions	143
Problems	143

Chapter 6: Aggregate Incomes 146

6.1 Inequality Around the World	147
Measuring Differences in Income per Capita	147
Letting the Data Speak: The Big Mac Index	149
Inequality in Income per Capita	149
Income per Worker	150
Productivity	151
Incomes and the Standard of Living	152
Choice & Consequence: Dangers of Just Focusing on Income per Capita	152

6.2 Productivity and the Aggregate Production Function	154
Productivity Differences	154
The Aggregate Production Function	155
Labor	155
Physical Capital and Land	156
Representing the Aggregate Production Function	156

6.3 The Role and Determinants of Technology	158
Technology	158
Dimensions of Technology	158
Letting the Data Speak: Moore's Law	159
Letting the Data Speak: Efficiency of Production and Productivity at the Company Level	160
Entrepreneurship	161
Letting the Data Speak: Monopoly and GDP	161
Evidence-Based Economics: Why is the average American so much richer than the average Indian?	162
Summary	164
Key Terms	164
Questions	165
Problems	165

Appendix: The Mathematics of Aggregate Production Functions 168

PART III LONG-RUN GROWTH AND DEVELOPMENT 170

Chapter 7: Economic Growth 170

7.1 The Power of Economic Growth	171
A First Look at U.S. Growth	172
Exponential Growth	172
Choice & Consequence: The Power of Growth	174

Patterns of Growth	175	Inclusive Economic Institutions and the Industrial Revolution	216
Letting the Data Speak: Levels versus Growth	177	Letting the Data Speak: Blocking the Railways	216
7.2 How Does a Nation's Economy Grow?	179	Evidence-Based Economics: Are tropical and semitropical areas condemned to poverty by their geographies?	217
Optimization: The Choice Between Saving and Consumption	180	8.3 Is Foreign Aid the Solution to World Poverty?	222
What Brings Sustained Growth?	180	Choice & Consequence: Foreign Aid and Corruption	223
Choice & Consequence: Is Increasing the Saving Rate Always a Good Idea?	181	<i>Summary</i>	224
Knowledge, Technological Change, and Growth	181	<i>Key Terms</i>	225
Evidence-Based Economics: Why are you so much more prosperous than your great-great-grandparents were?	183	<i>Questions</i>	225
7.3 The History of Growth and Technology	185	<i>Problems</i>	225
Growth Before Modern Times	185		
Malthusian Limits to Growth	186		
The Industrial Revolution	187		
Growth and Technology Since the Industrial Revolution	187		
7.4 Growth, Inequality, and Poverty	187		
Growth and Inequality	187		
Letting the Data Speak: Income Inequality in the United States	188		
Choice & Consequence: Inequality versus Poverty	189		
Growth and Poverty	189		
How Can We Reduce Poverty?	190		
Letting the Data Speak: Life Expectancy and Innovation	191		
<i>Summary</i>	192		
<i>Key Terms</i>	192		
<i>Questions</i>	192		
<i>Problems</i>	193		
Appendix: The Solow Growth Model	195		
<i>Appendix Key Terms</i>	203		
<i>Appendix Problems</i>	203		
Chapter 8: Why Isn't the Whole World Developed?	204		
8.1 Proximate Versus Fundamental Causes of Prosperity	205		
Geography	206		
Culture	207		
Institutions	207		
A Natural Experiment of History	208		
8.2 Institutions and Economic Development	210		
Inclusive and Extractive Economic Institutions	210		
How Economic Institutions Affect Economic Outcomes	211		
Letting the Data Speak: Divergence and Convergence in Eastern Europe	212		
The Logic of Extractive Economic Institutions	215		
		PART IV EQUILIBRIUM IN THE MACROECONOMY	228
		Chapter 9: Employment and Unemployment	228
		9.1 Measuring Employment and Unemployment	229
		Classifying Potential Workers	229
		Calculating the Unemployment Rate	230
		Trends in the Unemployment Rate	231
		Who Is Unemployed?	232
		9.2 Equilibrium in the Labor Market	233
		The Demand for Labor	233
		Shifts in the Labor Demand Curve	234
		The Supply of Labor	236
		Shifts in the Labor Supply Curve	236
		Equilibrium in a Competitive Labor Market	237
		9.3 Why Is There Unemployment?	238
		9.4 Job Search and Frictional Unemployment	238
		9.5 Wage Rigidity and Structural Unemployment	239
		Minimum Wage Laws	239
		Choice & Consequence: The Luddites	240
		Labor Unions and Collective Bargaining	241
		Efficiency Wages and Unemployment	242
		Downward Wage Rigidity and Unemployment Fluctuations	242
		The Natural Rate of Unemployment and Cyclical Unemployment	243
		Evidence-Based Economics: What happens to employment and unemployment if local employers go out of business?	245
		<i>Summary</i>	246
		<i>Key Terms</i>	247
		<i>Questions</i>	248
		<i>Problems</i>	248

Chapter 10: Credit Markets 252**10.1 What Is the Credit Market? 253**

Borrowers and the Demand for Loans	253
Real and Nominal Interest Rates	254
The Credit Demand Curve	255
Saving Decisions	256
The Credit Supply Curve	257
Choice & Consequence: Why Do People Save?	258
Equilibrium in the Credit Market	259
Credit Markets and the Efficient Allocation of Resources	261

10.2 Banks and Financial Intermediation: Putting Supply and Demand Together 261

Assets and Liabilities on the Balance Sheet of a Bank	262
---	-----

10.3 What Banks Do 264

Identifying Profitable Lending Opportunities	264
Maturity Transformation	264
Management of Risk	265
Bank Runs	266
Bank Regulation and Bank Solvency	267
Evidence-Based Economics: How often do banks fail?	268
Choice & Consequence: Too Big to Fail	269
Choice & Consequence: Asset Price Fluctuations and Bank Failures	270
Summary	270
Key Terms	271
Questions	271
Problems	272

Chapter 11: The Monetary System 274**11.1 Money 275**

The Functions of Money	275
Types of Money	276
The Money Supply	276
Choice & Consequence: Non-Convertible Currencies in U.S. History	277

11.2 Money, Prices, and GDP 278

Nominal GDP, Real GDP, and Inflation	278
The Quantity Theory of Money	279

11.3 Inflation 280

What Causes Inflation?	280
The Consequences of Inflation	280
The Social Costs of Inflation	281
The Social Benefits of Inflation	282
Evidence-Based Economics: What caused the German hyperinflation of 1922–1923?	283

11.4 The Federal Reserve 285

The Central Bank and the Objectives of Monetary Policy	285
What Does the Central Bank Do?	286
Bank Reserves	286
The Demand Side of the Federal Funds Market	288
The Supply Side of the Federal Funds Market and Equilibrium in the Federal Funds Market	289
The Fed's Influence on the Money Supply and the Inflation Rate	292
Choice & Consequence: Obtaining Reserves Outside the Federal Funds Market	293
The Relationship Between the Federal Funds Rate and the Long-Term Real Interest Rate	294
Choice & Consequence: Two Models of Inflation Expectations	295
Summary	297
Key Terms	297
Questions	298
Problems	298

PART V SHORT-RUN FLUCTUATIONS AND MACROECONOMIC POLICY 300**Chapter 12: Short-Run Fluctuations 300****12.1 Economic Fluctuations and Business Cycles 301**

Patterns of Economic Fluctuations	303
The Great Depression	305

12.2 Macroeconomic Equilibrium and Economic Fluctuations 307

Labor Demand and Fluctuations	307
Sources of Fluctuations	309

Letting the Data Speak: Unemployment and the Growth Rate of Real GDP: Okun's Law	310
---	-----

Multipliers and Economic Fluctuations	313
Equilibrium in the Short Run, with Multipliers and Downward Wage Rigidity	315
Equilibrium in the Medium Run: Partial Recovery and Full Recovery	316

12.3 Modeling Expansions 320

Evidence-Based Economics: What caused the recession of 2007–2009?	321
Summary	326
Key Terms	327
Questions	327
Problems	328

Chapter 13: Countercyclical Macroeconomic Policy 330

13.1 The Role of Countercyclical Policies in Economic Fluctuations	331
13.2 Countercyclical Monetary Policy	333
Controlling the Federal Funds Rate	334
Other Tools of the Fed	336
Expectations, Inflation, and Monetary Policy	337
Letting the Data Speak: Managing Expectations	338
Contractionary Monetary Policy: Control of Inflation	338
Zero Lower Bound	340
Choice & Consequence: Policy Mistakes	340
Policy Trade-offs	341
13.3 Countercyclical Fiscal Policy	342
Fiscal Policy Over the Business Cycle: Automatic and Discretionary Components	342
Analysis of Expenditure-Based Fiscal Policy	344
Analysis of Taxation-Based Fiscal Policy	346
Fiscal Policies that Directly Target the Labor Market	347
Policy Waste and Policy Lags	348
Evidence-Based Economics: How much does government expenditure stimulate GDP?	349
13.4 Policies That Blur the Line Between Fiscal and Monetary Policy	351
<i>Summary</i>	352
<i>Key Terms</i>	352
<i>Questions</i>	353
<i>Problems</i>	353

PART VI MACROECONOMICS IN A GLOBAL ECONOMY 356

Chapter 14: Macroeconomics and International Trade 356

14.1 Why and How We Trade	357
Absolute Advantage and Comparative Advantage	357
Comparative Advantage and International Trade	360
Efficiency and Winners and Losers from Trade	361
How We Trade	362
Trade Barriers: Tariffs	363
Letting the Data Speak: Living in an Interconnected World	364
Choice & Consequence: Tariffs and Votes	365
14.2 The Current Account and the Financial Account	365
Trade Surpluses and Trade Deficits	365
International Financial Flows	366
The Workings of the Current Account and the Financial Account	367

14.3 International Trade, Technology Transfer, and Economic Growth	369
Letting the Data Speak: From IBM to LenoVo	371
Evidence-Based Economics: Are companies like Nike harming workers in Vietnam?	372
<i>Summary</i>	374
<i>Key Terms</i>	375
<i>Questions</i>	375
<i>Problems</i>	375

Chapter 15: Open Economy Macroeconomics 378

15.1 Exchange Rates	379
Nominal Exchange Rates	379
Flexible, Managed, and Fixed Exchange Rates	380
15.2 The Foreign Exchange Market	381
How Do Governments Intervene in the Foreign Exchange Market?	384
Defending an Overvalued Exchange Rate	385
Choice & Consequence: Fixed Exchange Rates and Corruption	387
Evidence-Based Economics: How did George Soros make \$1 billion?	387
15.3 The Real Exchange Rate and Exports	389
From the Nominal to the Real Exchange Rate	389
Co-Movement Between the Nominal and the Real Exchange Rates	390
The Real Exchange Rate and Net Exports	391
15.4 GDP in the Open Economy	392
Letting the Data Speak: Why Have Chinese Authorities Kept the Yuan Undervalued?	393
Interest Rates, Exchange Rates, and Net Exports	394
Revisiting Black Wednesday	394
Letting the Data Speak: The Costs of Fixed Exchange Rates	395
<i>Summary</i>	396
<i>Key Terms</i>	397
<i>Questions</i>	397
<i>Problems</i>	398
Endnotes	401
Glossary	403
Credits	411
Index	413

CHAPTERS ON THE WEB

Web chapters are available on MyEconLab.	
WEB Chapter 1	Financial Decision Making
WEB Chapter 2	Economics of Life, Health, and the Environment
WEB Chapter 3	Political Economy