



**Arab World
Edition**



Economics

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Brief contents

PREFACE

xxx

ACKNOWLEDGMENTS

xlvi

PART 1: Introduction

Chapter 1: Economics: Foundations and Models	2
Chapter 1: Appendix: Using Graphs and Formulas	24
Chapter 2: Trade-Offs, Comparative Advantage, and the Market System	36
Chapter 3: Where Prices Come From: The Interaction of Demand and Supply	66
Chapter 4: Economic Efficiency, Government Price Setting, and Taxes	100
Chapter 4: Appendix: Quantitative Demand and Supply Analysis	133
Chapter 5: Elasticity: The Responsiveness of Demand and Supply	138

PART 2: Microeconomic Foundation: Consumers and Firms

Chapter 6: Consumer Choice and Behavioral Economics	174
Chapter 6: Appendix: Using Indifference Curves and Budget Lines to Understand Consumer Behavior	205
Chapter 7: Technology, Production, and Costs	220
Chapter 7: Appendix: Using Isoquants and Isocosts to Understand Production and Cost	251

PART 3: Market Structure and Firm Strategy

Chapter 8: Firms in Perfectly Competitive Markets	264
Chapter 9: Monopolistic Competition: The Competitive Model in a More Realistic Setting	300
Chapter 10: Oligopoly: Firms in Less Competitive Markets	328
Chapter 11: Monopoly and Antitrust Policy	356
Chapter 12: Pricing Strategy	388

PART 4: Special Topics: the Need for the Government and International Trade

Chapter 13: Externalities, Environmental Policy, and Public Goods	416
--	-----

Chapter 14: Comparative Advantage and the Gains from International Trade	452
---	-----

PART 5: Macroeconomic Foundations

Chapter 15: Measuring Total Production and Income	490
Chapter 16: Unemployment and Inflation	518
Chapter 17: Economic Growth, the Financial System, and Business Cycles	550

PART 6: Short-Run Fluctuations

Chapter 18: The Markets for Labor and Other Factors of Production	580
Chapter 19: Output and Expenditure in the Short Run	616
Chapter 19: Appendix: The Algebra of Macroeconomic Equilibrium	655
Chapter 20: Aggregate Demand and Aggregate Supply Analysis	658
Chapter 20: Appendix: Macroeconomic Schools of Thought	691

PART 7: Monetary Policy, Fiscal Policy, and the International Economy

Chapter 21: Money, Banks, and the Central Bank	695
Chapter 22: Monetary Policy	728
Chapter 23: Fiscal Policy	760
Chapter 23: Appendix: A Closer Look at the Multiplier	795
Chapter 24: Inflation, Unemployment, and Central Bank Policy	802
Chapter 25: Macroeconomics in an Open Economy	832

REFERENCES

R1

ENGLISH-ARABIC GLOSSARY

G1

INDEX

I1

CREDITS

C1

Contents

PREFACE

ACKNOWLEDGMENTS

xxx

xlvi

PART 1: Introduction

CHAPTER 1: Economics: Foundations and Models

2

THE RISING ECONOMIC POWERS IN THE EAST: THE ARAB WORLD AND THE GLOBAL ECONOMY

2

THREE KEY ECONOMIC IDEAS

4

People Are Rational

5

People Respond to Economic Incentives

5

Making the Connection: Will Women Have Fewer
or More Babies if the Government Pays Them To?

5

Optimal Decisions Are Made at the Margin

6

Solved Problem 1-1: Apple Computer Makes
a Decision at the Margin

7

THE ECONOMIC PROBLEM THAT EVERY SOCIETY MUST SOLVE

8

What Goods and Services Will Be Produced?

8

How Will the Goods and Services Be Produced?

8

Who Will Receive the Goods and Services Produced?

9

Centrally Planned Economies versus Market Economies

9

The Modern "Mixed" Economy and the Arab Economies

10

Efficiency and Equity

10

ECONOMIC MODELS

11

The Role of Assumptions in Economic Models

12

Forming and Testing Hypotheses in Economic Models

12

Normative and Positive Analysis

13

Economics as a Social Science

13

Making the Connection: Should the Host Governments
Protect the Migrant Workers?

13

MICROECONOMICS AND MACROECONOMICS

14

A PREVIEW OF IMPORTANT ECONOMIC TERMS

15

CONCLUSION

17

An Inside Look: The Price of Globalization

18

Key Terms, Summary, Review, Problems and Applications

20

CHAPTER 1 Appendix: Using Graphs and Formulas

24

GRAPHS OF ONE VARIABLE

25

GRAPHS OF TWO VARIABLE

26

Slopes of Lines

27

Taking into Account More Than Two Variables
on a Graph

28

Positive and Negative Relationships

28

Determining Cause and Effect

29

Are Graphs of Economic Relationships

31

Always Straight Lines?

31

Slopes of Nonlinear Curves

31

FORMULAS

32

Formula for a Percentage Change

32

Formulas for the Areas of a Rectangle and
a Triangle

33

Summary of Using Formulas

34

Problems and Applications

34

CHAPTER 2: Trade-Offs, Comparative Advantage, and the Market System

36

MANAGERS MAKING CHOICES AT BMW: THE CASES OF BMW-EGYPT AND BMW-US

36

PRODUCTION POSSIBILITIES FRONTIERS AND OPPORTUNITY COSTS

38

Graphing the Production Possibilities Frontier

38

Solved Problem 2-1: Drawing a Production Possibilities
Frontier for Al-Hallab Sweets of Lebanon

40

Making the Connection: Trade-Offs: The Pattern
of Charitable Giving in the Arab World

41

Increasing Marginal Opportunity Costs

42

Economic Growth

44

COMPARATIVE ADVANTAGE AND TRADE

44

Specialization and Gains from Trade

45

Absolute Advantage versus Comparative Advantage

46

Comparative Advantage and the Gains from Trade

48

Solved Problem 2-2: Comparative Advantage
and the Gains from Trade

48

THE MARKET SYSTEM

49

The Circular Flow of Income

50

The Gains from Free Markets

51

The Market Mechanism

52

Making the Connection: A Story of the Market
System in Action: How Do You Make an iPod?

53

The Role of the Entrepreneur

54

The Legal Basis of a Successful Market System

54

Making the Connection: Property Rights
in Cyberspace: YouTube and MySpace

55

CONCLUSION

57

An Inside Look: The Impact of the Egyptian Revolution
on Local Car Feeding Industry

58

Key Terms, Summary, Review, Problems
and Applications

60

CHAPTER 3: Where Prices Come From: The Interaction of Demand and Supply

66

APPLE AND THE DEMAND FOR IPODS

66

THE DEMAND SIDE OF THE MARKET

68

Demand Schedules and Demand Curves

68

The Law of Demand

69

ix

What Explains the Law of Demand?	69
Holding Everything Else Constant: The <i>Ceteris Paribus</i> Condition	70
Variables That Shift Market Demand	70
Making the Connection: Why Supermarkets Need to Understand Substitutes and Complements	71
Making the Connection: Google Responds to a Growing Arab World Demand for Internet Navigation by launching Ahlan Online	73
A Change in Demand versus a Change in Quantity Demanded	74
Making the Connection: Apple Forecasts the Demand for iPods and other Consumer Electronics	75
THE SUPPLY SIDE OF THE MARKET	76
Supply Schedules and Supply Curves	76
The Law of Supply	77
Variables That Shift Supply	78
Number of Firms in the Market	78
Expected Future Prices	79
A Change in Supply versus a Change in Quantity Supplied	80
MARKET EQUILIBRIUM: PUTTING DEMAND AND SUPPLY TOGETHER	80
How Markets Eliminate Surpluses and Shortages	81
Demand and Supply Both Count	82
Solved Problem 3-3: Demand and Supply Both Count: A Tale of Two Metals	82
THE EFFECT OF DEMAND AND SUPPLY SHIFTS ON EQUILIBRIUM	84
The Effect of Shifts in Supply on Equilibrium	84
Making the Connection: The Falling Price of LCD Televisions	85
The Effect of Shifts in Demand on Equilibrium	86
The Effect of Shifts in Demand and Supply over Time	86
Making the Connection: Global Fashion Trends Reveals a Growing Demand for Arabian Styles	87
Solved Problem 3-4: Low Demand and High Prices in the Saudi Fresh Poultry Market?	88
Shifts in a Curve versus Movements along a Curve	90
CONCLUSION	91
An Inside Look: Supply and Demand Determines International Oil Prices	92
Key Terms, Summary, Review, Problems and Applications	94

CHAPTER 4: Economic Efficiency, Government Price Setting, and Taxes **100**

WHY DOES THE DUBAI GOVERNMENT CONTROL APARTMENT RENTS?	100
CONSUMER SURPLUS AND PRODUCER SURPLUS	102
Consumer Surplus	102
Making the Connection: The Consumer Surplus from Satellite Television	104
Producer Surplus	105
What Consumer Surplus and Producer Surplus Measure	106

THE EFFICIENCY OF COMPETITIVE MARKETS	107
Marginal Benefit Equals Marginal Cost in Competitive Equilibrium	107
Economic Surplus	108
Deadweight Loss	108
Economic Surplus and Economic Efficiency	109

GOVERNMENT INTERVENTION IN THE MARKET: PRICE FLOORS AND PRICE CEILINGS	109
Price Floors: Government Policy in Agricultural Markets	110
Making the Connection: Price Floors in Labor Markets: The Debate over Minimum Wage Policy	111
Price Ceilings: Government Rent Control Policy in Housing Markets	112
Black Markets	113

Solved Problem 4-3: What's the Economic Effect of a 'Black Market' for Apartments?	114
---	-----

Making the Connection: Does Holiday Gift Giving Have a Deadweight Loss	115
The Results of Government Price Controls: Winners, Losers, and Inefficiency	116
Positive and Normative Analysis of Price Ceilings and Price Floors	116

THE ECONOMIC IMPACT OF TAXES	117
The Effect of Taxes on Economic Efficiency	117
Tax Incidence: Who Actually Pays a Tax?	118
Determining Tax Incidence on a Demand and Supply Graph	118
Solved Problem 4-4: When Do Consumers Pay All of a Sales Tax Increase?	119
Does It Matter Whether the Tax Is on Buyers or Sellers?	120
Making the Connection: Is The Burden of the Social Insurance Tax in Egypt Really Shared Equally between Workers and Firms?	121

CONCLUSION	123
An Inside Look at Policy: Is Rent Control Really Effective?	124
Key Terms, Summary, Review, Problems and Applications	126

CHAPTER 4 Appendix: Quantitative Demand and Supply Analysis **133**

DEMAND AND SUPPLY EQUATIONS	133
CALCULATING CONSUMER SURPLUS AND PRODUCER SURPLUS	134
Review Questions	136
Problems and Applications	136

CHAPTER 5: Elasticity: The Responsiveness of Demand and Supply **138**

DO PEOPLE CARE ABOUT THE PRICES OF BOOKS?	138
THE PRICE ELASTICITY OF DEMAND AND ITS MEASUREMENT	140
MEASURING THE PRICE ELASTICITY OF DEMAND	140
Elastic Demand and Inelastic Demand	141
An Example of Computing Price Elasticities	141
The Midpoint Formula	142

Solved Problem 5-1: Calculating the Price Elasticity of Demand	143	UTILITY AND CONSUMER DECISION MAKING	176
When Demand Curves Intersect, the Flatter Curve Is More Elastic	144	The Economic Model of Consumer Behavior in a Nutshell	176
Polar Cases of Perfectly Elastic and Perfectly Inelastic Demand	144	Utility	176
THE DETERMINANTS OF THE PRICE ELASTICITY OF DEMAND	146	The Principle of Diminishing Marginal Utility	177
Availability of Close Substitutes	146	The Rule of Equal Marginal Utility per Dollar Spent	177
Passage of Time	146	Solved Problem 6-1: Finding the Optimal Level of Consumption	181
Luxuries versus Necessities	146	What if the Rule of Equal Marginal Utility per Dollar Does Not Hold?	182
Definition of the Market	146	The Income Effect and Substitution Effect of a Price Change	182
Making the Connection: The Price Elasticity of Demand for Breakfast Cereal	147	WHERE DEMAND CURVES COME FROM	184
Share of a Good in a Consumer's Budget	147	SOCIAL INFLUENCES ON DECISION MAKING	186
Is the Demand for Books Perfectly Inelastic?	147	The Effects of Celebrity Endorsements	187
THE RELATIONSHIP BETWEEN PRICE ELASTICITY OF DEMAND AND TOTAL REVENUE	148	Making the Connection: Why Do Firms Pay Mohamed Aboutrika to Endorse Their Products?	187
Elasticity and Revenue with a Linear Demand Curve	150	Network Externalities	188
Solved Problem 5-3: Price and Revenue Don't Always Move in the Same Direction	151	Does Fairness Matter?	188
Estimating Price Elasticity of Demand	151	Making the Connection: How can we explain the long lines at Al-Baik Restaurant?	191
Making the Connection: Determining the Price Elasticity of Demand for DVDs by Market Experiment	151	BEHAVIORAL ECONOMICS: DO PEOPLE MAKE THEIR CHOICES RATIONALLY?	192
OTHER DEMAND ELASTICITIES	152	IGNORING NONMONETARY OPPORTUNITY COSTS	192
Cross-Price Elasticity of Demand	152	Business Implications of Consumers Ignoring Nonmonetary Opportunity Costs	193
Income Elasticity of Demand	153	Making the Connection: Why Do Hilton Hotels and other Firms Hide Their Prices?	193
Making the Connection: Short-run Price Elasticity, Long-run Price Elasticity, and Income Elasticity in the Crude Oil Market	154	Failing to Ignore Sunk Costs	194
USING ELASTICITY TO ANALYZE MICROSOFT WINDOWS' PRICE CUT IN THE GULF REGION	155	Being Unrealistic about Future Behavior	195
Solved Problem 5-5: Using Price Elasticity to Analyze Policy toward Illegal Drugs	156	Making the Connection: Why Don't Students Study More?	195
THE PRICE ELASTICITY OF SUPPLY AND ITS MEASUREMENT	157	Solved Problem 6-4: How Do You Get People to Save More of Their Income?	196
Measuring the Price Elasticity of Supply	157	CONCLUSION	197
Determinants of the Price Elasticity of Supply	157	An Inside Look: Was Nokia Right to Choose Mohamed Hamaki to Endorse Its New Music Service?	198
Making the Connection: Why Are Oil Prices So Unstable?	158	Key Terms, Summary, Review, Problems and Applications	200
Polar Cases of Perfectly Elastic and Perfectly Inelastic Supply	159	CHAPTER 6 Appendix: Using Indifference Curves and Budget Lines to Understand Consumer Behavior	205
Using Price Elasticity of Supply to Predict Changes in Price	161	CONSUMER PREFERENCES	205
CONCLUSION	162	Indifference Curves	205
An Inside Look: Etisalat Offer a Price Cut for iPhones and Roaming Services	164	The Slope of an Indifference Curve	206
Key Terms, Summary, Review Questions, Problems and Applications	166	Can Indifference Curves Ever Cross?	207
		The Budget Constraint	207
		CHOOSING THE OPTIMAL CONSUMPTION OF PIZZA AND COKE	208
		Making the Connection: Dell Determines the Optimal Mix of Products	209
		How a Price Change Affects Optimal Consumption	210
		Solved Problem 6A-1: When Does a Price Change Make a Consumer Better Off?	211
		Deriving the Demand Curve	212

PART 2: Microeconomic Foundation: Consumers and Firms

CHAPTER 6: Consumer Choice and Behavioral Economics 174

DID AMR DIAB MAKE YOU SWITCH TO PEPSI-COLA? 174

The Income Effect and the Substitution Effect of a Price Change	213
How a Change in Income Affects Optimal Consumption	214
THE SLOPE OF THE INDIFFERENCE CURVE, THE SLOPE OF THE BUDGET LINE, AND THE RULE OF EQUAL MARGINAL UTILITY PER DOLLAR SPENT	215
The Rule of Equal Marginal Utility per Dollar Spent Revisited	216
Key Terms, Review, Problems and Applications	217
 CHAPTER 7: Technology, Production, and Costs	 220
SONY USES A COST CURVE TO DETERMINE THE PRICE OF RADIOS	220
TECHNOLOGY: AN ECONOMIC DEFINITION	222
Making the Connection: Improving Inventory Control at Wal-Mart and Bread Quality at Carrefour	222
THE SHORT RUN AND THE LONG RUN IN ECONOMICS	223
The Difference between Fixed Costs and Variable Costs	224
Making the Connection: Fixed Costs in the Publishing Industry	224
Implicit Costs versus Explicit Costs	224
The Production Function	225
A First Look at the Relationship between Production and Cost	226
THE MARGINAL PRODUCT OF LABOR AND THE AVERAGE PRODUCT OF LABOR	227
The Law of Diminishing Returns	228
Graphing Production	228
The Relationship between Marginal and Average Product	229
Making the Connection: Adam Smith's Famous Account of the Division of Labor in a Pin Factory	230
An Example of Marginal and Average Values: College Grades	230
THE RELATIONSHIP BETWEEN SHORT-RUN PRODUCTION AND SHORT-RUN COST	232
Marginal Cost	232
Why Are the Marginal and Average Cost Curves U-Shaped?	232
Solved Problem 7-4: The Relationship between Marginal Cost and Average Cost	233
GRAPHING COST CURVES	234
COSTS IN THE LONG RUN	236
Economies of Scale	236
Long-Run Average Total Cost Curves for Bookstores	236
Solved Problem 7-6: Using Long-Run Average Cost Curves to Understand Business Strategy	238
Making the Connection: Economies and Diseconomies of Scale in the Car Industry	239
CONCLUSION	241
An Inside Look: Lower Manufacturing Costs Push Down the Price of Flat-Panel TVs	242
Key Terms, Summary, Review, Problems and Applications	244

CHAPTER 7 Appendix: Using Isoquants and Isocosts to Understand Production and Cost 251

ISOQUANTS	251
An Isoquant Graph	251
The Slope of an Isoquant	251
ISOCOST LINES	252
Graphing the Isocost Line	252
The Slope and Position of the Isocost Line	253
CHOOSING THE COST-MINIMIZING COMBINATION OF CAPITAL AND LABOR	253
Different Input Price Ratios Lead to Different Input Choices	253
Making the Connection: The Changing Input Mix in Walt Disney Film Animation	255
Another Look at Cost Minimization	256
Solved Problem 7A-1: Determining the Optimal Combination of Inputs	258
THE EXPANSION PATH	258
Key Terms, Review, Problems and Applications	259

PART 3: Market Structure and Firm Strategy

CHAPTER 8: Firms in Perfectly Competitive Markets 264

PERFECT COMPETITION IN THE RETAIL MARKET FOR MOBILE PHONES	264
PERFECTLY COMPETITIVE MARKETS	267
A Perfectly Competitive Firm Cannot Affect the Market Price	267
The Demand Curve for the Output of a Perfectly Competitive Firm	268
HOW A FIRM MAXIMIZES PROFIT IN A PERFECTLY COMPETITIVE MARKET	269
Revenue for a Firm in a Perfectly Competitive Market	269
Determining the Profit-Maximizing Level of Output	270
ILLUSTRATING PROFIT OR LOSS ON THE COST CURVE GRAPH	273
Showing a Profit on the Graph	273
Solved Problem 8-3: Determining Profit-Maximizing Price and Quantity	274
Illustrating When a Firm Is Breaking Even or Operating at a Loss	276
Making the Connection: The Medical Screening Industry: When to Make Money and When to Lose	276
DECIDING WHETHER TO PRODUCE OR TO SHUT DOWN IN THE SHORT RUN	278
The Supply Curve of a Firm in the Short Run	279
The Market Supply Curve in a Perfectly Competitive Industry	280
"IF EVERYONE CAN DO IT, YOU CAN'T MAKE MONEY AT IT": THE ENTRY AND EXIT OF FIRMS IN THE LONG RUN	281
Economic Profit and the Entry or Exit Decision	281

Long-Run Equilibrium in a Perfectly Competitive Market	283	Making the Connection: Can Dunkin' Donuts' Marketing Strategy Help it Compete with Starbucks?	317
The Long-Run Supply Curve in a Perfectly Competitive Market	284	WHAT MAKES A FIRM SUCCESSFUL?	317
Making the Connection: Easy Entry Makes the Long Run Pretty Short in the Apple iPhone Apps Store	285	Making the Connection: Is Being the First Firm in the Market a Key to Success?	318
Increasing-Cost and Decreasing-Cost Industries	286	CONCLUSION	319
PERFECT COMPETITION AND EFFICIENCY	287	An Inside Look: The Growing Competition among Coffeehouses in the Arab World	320
Making the Connection: "Lose Money But Do Not Lose the Market Share"	287	Key Terms, Summary, Review, Problems and Applications	322
Productive Efficiency	287		
Solved Problem 8-6: How Productive Efficiency Benefits Consumers	288		
Allocative Efficiency	289		
CONCLUSION	291		
An Inside Look: Egyptian Lantern Makers Face Tough Competition from Chinese Exporters	292		
Key Terms, Summary, Review, Problems and Applications	294		
CHAPTER 9: Monopolistic Competition: The Competitive Model in a More Realistic Setting	300		
COSTA COFFEE EXPANSION IN THE MIDDLE EAST: GROWTH THROUGH PRODUCT DIFFERENTIATION	300		
DEMAND AND MARGINAL REVENUE FOR A FIRM IN A MONOPOLISTICALLY COMPETITIVE MARKET	302		
The Demand Curve for a Monopolistically Competitive Firm	302		
Marginal Revenue for a Firm with a Downward-Sloping Demand Curve	303		
HOW A MONOPOLISTICALLY COMPETITIVE FIRM MAXIMIZES PROFITS IN THE SHORT RUN	305		
Solved Problem 9-2: How Not to Maximize Profits at Al-Shorouk Publishing Company	307		
WHAT HAPPENS TO PROFITS IN THE LONG RUN?	307		
How Does the Entry of New Firms Affect the Profits of Existing Firms?	307		
Making the Connection: The Rise and Fall of Apple's Macintosh Computer	309		
Solved Problem 9-3: The Short Run and the Long Run for the Macintosh	310		
Is Zero Economic Profit Inevitable in the Long Run?	311		
Making the Connection: A Regional Brand on a Global Mission: Aramex to Join the "Big Four:" UPS, DHL, FedEx, and TNT	312		
COMPARING PERFECT COMPETITION AND MONOPOLISTIC COMPETITION	314		
Excess Capacity under Monopolistic Competition	314		
Is Monopolistic Competition Inefficient?	315		
How Consumers Benefit from Monopolistic Competition	315		
HOW MARKETING DIFFERENTIATES PRODUCTS	315		
Brand Management	316		
Advertising	316		
Defending a Brand Name	316		
		CHAPTER 10: Oligopoly: Firms in Less Competitive Markets	328
		COMPETING WITH CARREFOUR	328
		OLIGOPOLY AND BARRIERS TO ENTRY	330
		Barriers to Entry	331
		USING GAME THEORY TO ANALYZE OLIGOPOLY	332
		A Duopoly Game: Price Competition between Two Firms	333
		Making the Connection: The Price War Is Escalating between Qatar's Two Telecom Operators	334
		Firm Behavior and the Prisoners' Dilemma	334
		Solved Problem 10-2: Is Advertising a Prisoners' Dilemma for Coca-Cola and Pepsi?	335
		Making the Connection: Is There a Dominant Strategy for Bidding on Souq.com?	336
		Can Firms Escape the Prisoners' Dilemma?	337
		Making the Connection: Du's Decision Not to Indulge in a Price War with Etisalat, UAE's Former Telecom Monopoly	338
		Cartels: The Case of OPEC	339
		SEQUENTIAL GAMES AND BUSINESS STRATEGY	341
		Deterring Entry	341
		Solved Problem 10-3: Deterring Entry Always a Good Idea?	342
		Bargaining	343
		THE FIVE COMPETITIVE FORCES MODEL	344
		Competition from Existing Firms	345
		The Threat from Potential Entrants	345
		Competition from Substitute Goods or Services	345
		The Bargaining Power of Buyers	345
		The Bargaining Power of Suppliers	345
		Making the Connection: How Jordan's Fastlink (now Zain) Coped with the Threat of New Competition from Mobilcom in early 2000	346
		CONCLUSION	347
		An Inside Look: Can LuLu Hypermarket Compete with Carrefour in the Middle East?	348
		Key Terms, Summary, Review, Problems and Applications	350
		CHAPTER 11: Monopoly and Antitrust Policy	356
		FIXED-LINE TELECOM SERVICES: A LONG-TIME MONOPOLY IN THE MIDDLE EAST	356

IS ANY FIRM EVER REALLY A MONOPOLY? 358

- Making the Connection:** Is Xbox 360 a Close Substitute for PlayStation 3? 358

WHERE DO MONOPOLIES COME FROM? 359

- Entry Blocked by Government Action 360

- Making the Connection:** The End of the Arab World's Mobile Telecom Monopolies 360

- Control of a Key Resource 361

- Making the Connection:** Are Diamond Profits Forever? The De Beers Diamond Monopoly 362

- Network Externalities 363

- Natural Monopoly 364

HOW DOES A MONOPOLY CHOOSE PRICE AND OUTPUT? 364

- Marginal Revenue Once Again 365

- Profit Maximization for a Monopolist 366

- Solved Problem 11-3:** Finding the Profit-Maximizing Price and Output for a Monopolist 367

DOES MONOPOLY REDUCE ECONOMIC EFFICIENCY? 368

- Comparing Monopoly and Perfect Competition 368

- Measuring the Efficiency Losses from Monopoly 369

- How Large Are the Efficiency Losses Due to Monopoly 370

- Market Power and Technological Change 371

GOVERNMENT POLICY TOWARD MONOPOLY 371

- Making the Connection:** The Example of the Anti-Monopoly and Competition Law and Enforcement in Egypt¹ 372

- Mergers: The Trade-off between Market Power and Efficiency 372

- Anti-Monopoly Laws Enforcement and Merger Guidelines 374

- Making the Connection:** Is Egypt's Steel Industry a Monopoly? The Case of Ezz-Dekhela 375

- Regulating Natural Monopolies 377

CONCLUSION 379

- An Inside Look at Policy:** Kuwait—Telecoms, Mobile, Broadband and Forecasts 380

- Key Terms, Summary, Review, Problems and Applications 382**

CHAPTER 12: Pricing Strategy 388**GETTING INTO DREAM PARK: ONE PRICE DOES NOT FIT ALL 388****PRICING STRATEGY, THE LAW OF ONE PRICE, AND ARBITRAGE 390**

- Arbitrage 390

- Solved Problem 12-1:** Is Arbitrage Just a Rip-off? 391

- Why Don't All Firms Charge the Same Price? 391

PRICE DISCRIMINATION: CHARGING DIFFERENT PRICES FOR THE SAME PRODUCT 392

- The Requirements for Successful Price Discrimination 392

- Solved Problem 12-2:** How the Jordanian Government Uses Price Discrimination to Increase Revenue 394

- Airlines: The Kings of Price Discrimination 395

- Making the Connection:** How Colleges Use Yield Management 396

- Perfect Price Discrimination 397

- Price Discrimination across Time 398

- Can Price Discrimination Be Illegal? 400

- Making the Connection:** Price Discrimination at Foreign Restaurants in the Gulf Countries 400

OTHER PRICING STRATEGIES 401

- Odd Pricing: Why Is the Price \$2.99 Instead of \$3.00? 401

- Why Do Firms Use Cost-Plus Pricing? 402

- Making the Connection:** Cost-Plus Pricing in the Publishing Industry 402

- Pricing with Two-Part Tariffs 404

CONCLUSION 407

- An Inside Look:** Electricity Bills: One Price Does Not Fit All Users 408

- Key Terms, Summary, Review, Problems and Applications 410**

PART 4: Special Topics: the Need for the Government and International Trade**CHAPTER 13: Externalities, Environmental Policy, and Public Goods 416****ECONOMIC POLICY AND THE ENVIRONMENT 416****EXTERNALITIES AND ECONOMIC EFFICIENCY 418**

- The Effect of Externalities 418

- Making the Connection:** The Importance of Adopting Industrial Energy-efficiency Strategies in the Arab World 420

- Making the Connection:** Masdar: Building a Leading-Edge Clean Energy Technology in Abu Dhabi 421

- Externalities May Result in Market Failure 422

- What Causes Externalities? 422

PRIVATE SOLUTIONS TO EXTERNALITIES: THE COASE THEOREM 423

- The Economically Efficient Level of Pollution Reduction 423

- The Basis for Private Solutions to Externalities 425

- Do Property Rights Matter? 426

- The Problem of Transactions Costs 426

- The Coase Theorem 426

GOVERNMENT POLICIES TO DEAL WITH EXTERNALITIES 427

- Solved Problem 13-3:** Using a Tax to Deal with a Negative Externality 428

- Command and Control versus Tradable Emissions Allowances 429

- Are Tradable Emissions Allowances Licenses to Pollute? 430

- Making the Connection:** Can Tradable Permits Reduce Global Warming? 431

FOUR CATEGORIES OF GOODS 432

- Making the Connection:** Should the Government Run the Health Care System? 433

- The Demand for a Public Good 435

- The Optimal Quantity of a Public Good 437

- Solved Problem 13-4:** Determining the Optimal Level of Public Goods 438

- Common Resources 439

Making the Connection: How Middle East Chefs and Chain Suppliers Are Dealing with Decreasing Seafood Stocks	440
CONCLUSION	443
An Inside Look at Policy: Oil-producing Nations Take a Different View on Carbon Taxes	444
Key Terms, Summary, Review, Problems and Applications	446

CHAPTER 14: Comparative Advantage and the Gains from International Trade **452**

TRADE POLICY: WHO WINS AND WHO LOSES?	452
THE ARAB WORLD IN THE INTERNATIONAL ECONOMY	454
Making the Connection: Would the Greater Arab Free Trade Area Agreement (GAFTA) help Arabs Boost Exports?	454
The Importance of Trade to the Arab Economy	456
The Importance of Arab Trade to the World Economy	458
Making the Connection: How Egypt Depends on World International Trade: The Importance of the Suez Canal	459
COMPARATIVE ADVANTAGE IN INTERNATIONAL TRADE	460
A Brief Review of Comparative Advantage	460
Comparative Advantage in International Trade	461
HOW COUNTRIES GAIN FROM INTERNATIONAL TRADE	462
Increasing Consumption through Trade	462
Solved Problem 14-3: The Gains from Trade	464
Why Don't We See Complete Specialization?	465
Does Anyone Lose as a Result of International Trade?	466
Making the Connection: The GCC Common Market: Are There Potential Gains? Who Wins and Who Loses?	466
Where Does Comparative Advantage Come From?	467
Comparative Advantage Over Time: The Rise and Fall—and Rise—of the US Consumer Electronics Industry	468
GOVERNMENT POLICIES THAT RESTRICT INTERNATIONAL TRADE	469
Tariffs	470
Quotas and Voluntary Export Restraints	471
Measuring the Economic Effect of the Sugar Quota	472
Solved Problem 14-4: Measuring the Economic Effect of a Quota	473
Making the Connection: Why the Egyptian Economy Is Compared with the South Korean Economy	474
Gains from Unilateral Elimination of Tariffs and Quotas	475
Making the Connection: Qualified Industrial Zones and the Middle East Free Trade Area	476
Other Barriers to Trade	477
THE ARGUMENT OVER TRADE POLICIES AND GLOBALIZATION	477
Why Do Some People Oppose the World Trade Organization?	477
Making the Connection: The WTO Strategy for the Arab Region	478
Dumping	480
Positive versus Normative Analysis (Once Again)	480

CONCLUSION	481
An Inside Look at Policy: The GCC-Singapore Free Trade Agreement	482
Key Terms, Review, Problems and Applications	484

PART 5: Macroeconomic Foundations

CHAPTER 15: Measuring Total Production and Income **490**

EMIRATES AIRLINES FEEL THE IMPACT OF THE GLOBAL RECESSION AND THE FLUCTUATIONS IN GDP	490
GROSS DOMESTIC PRODUCT MEASURES TOTAL PRODUCTION	493
Measuring Total Production: Gross Domestic Product	493
Solved Problem 15-1: Calculating GDP	494
Production, Income, and the Circular-Flow Diagram	494
Components of GDP	497
Making the Connection: Saudi Arabia Increases Government Spending in 2009: Education, a High Priority	498
An Equation for GDP and Some Actual Values	499
Measuring GDP by the Value-Added Method	499
DOES GDP MEASURE WHAT WE WANT IT TO MEASURE?	500
Shortcomings in GDP as a Measure of Total Production	500
Making the Connection: Corruption and the Underground Economy: How Severe Is Corruption in the Arab World?	501
Shortcomings of GDP as a Measure of Well-Being	503
REAL GDP VERSUS NOMINAL GDP	504
Calculating Real GDP	504
Solved Problem 15-3: Calculating Real GDP	504
Comparing Real GDP and Nominal GDP	505
Making the Connection: The Global Financial Crisis and Arab Economies' Nominal and Real GDP	505
The GDP Deflator	507
OTHER MEASURES OF TOTAL PRODUCTION AND TOTAL INCOME	509
Gross National Income (GNI)	509
Net National Income (NNI)	510
Personal Income	510
Disposable Personal Income	510
CONCLUSION	511
An Inside Look: The Government Spending Component of GDP Can Make up for the Decline in Other Components to Help Avoid a Recession	512
Key Terms, Review, Problems and Applications	514

CHAPTER 16: Unemployment and Inflation **518**

UNEMPLOYMENT AND INFLATION: TWO PERSISTENT PROBLEMS IN THE ARAB WORLD	518
--	------------

MEASURING THE UNEMPLOYMENT RATE AND THE LABOR FORCE PARTICIPATION RATE 520

How to Calculate the Unemployment Rate? 520

Solved Problem 16-1: What Happens if You Include the Military? 522

Problems with Measuring the Unemployment Rate 523

Trends in Labor Force Participation 523

Unemployment Rates for Demographic Groups 524

How Long Are People Typically Unemployed? 524

Job Creation and Job Destruction Over Time 524

TYPES OF UNEMPLOYMENT 524

Frictional Unemployment and Job Search 525

Structural Unemployment 526

Cyclical Unemployment 526

Full Employment 526

Making the Connection: How Should We Classify Unemployment in the Arab Countries? 527**EXPLAINING UNEMPLOYMENT 528**

Government Policies and the Unemployment Rate 528

Labor Unions 530

Efficiency Wages 530

MEASURING INFLATION 531

The Consumer Price Index 531

Is the CPI Accurate? 533

The Producer Price Index 534

USING PRICE INDEXES TO ADJUST FOR THE EFFECTS OF INFLATION 534**Solved Problem 16-5:** Calculating Real Average Hourly Earnings 534**REAL VERSUS NOMINAL INTEREST RATES 535****DOES INFLATION IMPOSE COSTS ON THE ECONOMY? 537**

Inflation Affects the Distribution of Income 538

The Problem with Anticipated Inflation 538

Making the Connection: Why a Lower Inflation Rate Is Like a Tax Cut for Orascom Telecom Bondholders 538

The Problem with Unanticipated Inflation 539

CONCLUSION 541**An Inside Look:** Food Prices, Housing Prices, and the "Youthquake": Major Problems Facing the Arab World 542**Key Terms, Summary, Review, Problems and Applications 544****CHAPTER 17: Economic Growth, the Financial System, and Business Cycles 550****ECONOMIC GROWTH IN THE ARAB WORLD: WHAT IS MISSING? 550****LONG-RUN ECONOMIC GROWTH 552****Making the Connection:** The Connection between Economic Prosperity and Health 553

Calculating Growth Rates and the Rule of 70 555

What Determines the Rate of Long-Run Growth? 556

Solved Problem 17-1: The Role of Technological Change in Growth 557**Making the Connection:** What Explains Rapid Economic Growth in Botswana? 558

Potential Real GDP 559

SAVING, INVESTMENT, AND THE FINANCIAL SYSTEM 560

An Overview of the Financial System 560

The Macroeconomics of Saving and Investment 562

The Market for Loanable Funds 563

Solved Problem 17-2: How Would a Consumption Tax Affect Saving, Investment, the Interest Rate, and Economic Growth? 567**THE BUSINESS CYCLE 568**

Some Basic Business Cycle Definitions 568

What Happens during a Business Cycle? 568

CONCLUSION 571**An Inside Look at Policy:** Economic Growth and Inflation Rate: Are They Positively Related? 572**Key Terms, Summary, Review, Problems and Applications 574****PART 6: Short-Run Fluctuations****CHAPTER 18: The Markets for Labor and Other Factors of Production 580****WHY IS REAL MADRID PAYING CRISTIANO RONALDO US\$17 MILLION PER YEAR? 580****THE DEMAND FOR LABOR 582**

The Marginal Revenue Product of Labor 582

Solved Problem 18-1: Hiring Decisions by a Firm That Is a Price Maker 584

The Market Demand Curve for Labor 585

Factors That Shift the Market Demand Curve for Labor 585

THE SUPPLY OF LABOR 586

The Market Supply Curve of Labor 587

Factors That Shift the Market Supply Curve of Labor 588

EQUILIBRIUM IN THE LABOR MARKET 589

The Effect on Equilibrium Wages of a Shift in Labor Demand 589

Making the Connection: Will Your Future Income Depend on Which Courses You Take in College? 590

The Effect on Equilibrium Wages of a Shift in Labor Supply 590

Making the Connection: Restricting Immigration and the Supply of Labor in the Arab Gulf 591**EXPLAINING DIFFERENCES IN WAGES 592****Making the Connection:** Technology and the Earnings of "Superstars" 593

Compensating Differentials 594

Discrimination 595

Solved Problem 18-4: Is "Comparable Worth" Legislation the Answer to Closing the Gap between Men's and Women's Pay? 599

Labor Unions 602

PERSONNEL ECONOMICS 602

Should Workers' Pay Depend on How Much They Work or on How Much They Produce? 603

Other Considerations in Setting Compensation Systems	604
THE MARKETS FOR CAPITAL AND NATURAL RESOURCES	604
The Market for Capital	605
The Market for Natural Resources	605
Monopsony	606
The Marginal Productivity Theory of Income Distribution	607
CONCLUSION	607
An Inside Look: Would Flexible Employment Enhance Labor Market Efficiency and Increase Labor Force Participation in the GCC countries?	608
Key Terms, Summary, Review, Problems and Applications	610

CHAPTER 19: Output and Expenditure in the Short Run **616**

THE FLUCTUATING DEMAND IN THE ARAB WORLD: THE EFFECTS OF THE RECENT GLOBAL FINANCIAL CRISIS	616
THE AGGREGATE EXPENDITURE MODEL	618
Aggregate Expenditure	618
The Difference between Planned Investment and Actual Investment	619
Macroeconomic Equilibrium	619
Adjustments to Macroeconomic Equilibrium	620
DETERMINING THE LEVEL OF AGGREGATE EXPENDITURE IN THE ECONOMY	621
Consumption	621
The Relationship between Consumption and National Income	624
Income, Consumption, and Saving	625
Solved Problem 19-2: Calculating the Marginal Propensity to Consume and the Marginal Propensity to Save	626
Planned Investment	627
Making the Connection: The Construction Boom in the Gulf (2005–2008) Induces Steel Production Capacity Growth	629
Government Purchases	630
Net Exports	630
GRAPHING MACROECONOMIC EQUILIBRIUM	632
Showing a Recession on the 45°-Line Diagram	634
The Important Role of Inventories	635
Making the Connection: Business Attempts to Control Inventories, then . . . and Now	636
A Numerical Example of Macroeconomic Equilibrium	637
Solved Problem 19-3: Determining Macroeconomic Equilibrium	638
THE MULTIPLIER EFFECT	639
Making the Connection: The Multiplier in Reverse: The Great Depression of the 1930s	641
A Formula for the Multiplier	642
Summarizing the Multiplier Effect	643
Solved Problem 19-4: Using the Multiplier Formula	644
THE AGGREGATE DEMAND CURVE	645
CONCLUSION	647
An Inside Look: Jordan Expected Thousands of Workers Home from the Gulf: Is it Good News for the Jordanian Economy?	648

Key Terms, Summary, Review, Problems and Applications	650
--	------------

CHAPTER 19 Appendix: The Algebra of Macroeconomic Equilibrium **655**

Problems and Applications	656
----------------------------------	------------

CHAPTER 20: Aggregate Demand and Aggregate Supply Analysis **658**

THE FORTUNES OF ARAMEX FOLLOW THE BUSINESS CYCLE	658
AGGREGATE DEMAND	660
Why Is the Aggregate Demand Curve Downward Sloping?	661
Shifts of the Aggregate Demand Curve versus Movements Along It	662
The Variables That Shift the Aggregate Demand Curve	662
Making the Connection: In a Global Economy, How Can You Tell the Imports from the Domestic Goods?	663
Solved Problem 20-1: Movements along the Aggregate Demand Curve versus Shifts of the Aggregate Demand Curve	664
AGGREGATE SUPPLY	667
The Long-Run Aggregate Supply Curve	667
The Short-Run Aggregate Supply Curve	668
Shifts of the Short-Run Aggregate Supply Curve versus Movements Along It	669
Variables That Shift the Short-Run Aggregate Supply Curve	669
MACROECONOMIC EQUILIBRIUM IN THE LONG RUN AND THE SHORT RUN	671
Recessions, Expansions, and Supply Shocks	672
A DYNAMIC AGGREGATE DEMAND AND AGGREGATE SUPPLY MODEL	675
What Is the Usual Cause of Inflation?	677
The Slow Recovery from the Recession of 2009	677
Making the Connection: Saudi's Slow Economic Recovery	678
Solved Problem 20-4: Showing the Affect of Oil Shock of 1974–1975 to the Economies of the West, Using a Dynamic Aggregate Demand and Aggregate Supply Graph	680
Making the Connection: Can FedEx and the US Economy Withstand High Oil Prices?	682
CONCLUSION	683
An Inside Look: How FedEx Middle East Weathered the Recent Global Recession	684
Key Terms, Summary, Review, Problems and Applications	686
CHAPTER 20 Appendix: Macroeconomic Schools of Thought	691
The Monetarist Model	691
The New Classical Model	692

The Real Business Cycle Model	692
Making the Connection: Karl Marx: Capitalism's Severest Critic	693
Key Terms	693

PART 7: Monetary Policy, Fiscal Policy, and the International Economy

CHAPTER 21: Money, Banks, and the Central Bank 696

A NEW SUDANESE POUND IS WORTH A THOUSAND OLD POUNDS	696
WHAT IS MONEY AND WHY DO WE NEED IT?	698
Barter and the Invention of Money	698
The Functions of Money	699
What Can Serve as Money?	700
Making the Connection: Money without a Government? The Strange Case of the Iraqi Dinar	701
HOW IS MONEY MEASURED IN THE WORLD TODAY?	702
M1: The Narrowest Definition of the Money Supply	703
Making the Connection: Do We Still Need the Fils, Piaster, or Penny?	703
M2: A Broader Definition of Money	704
Solved Problem 21-2: The Definitions of M1 and M2	705
What about Credit Cards and Debit Cards?	705
Making the Connection: Is Money the Same as Income or Wealth?	705
HOW DO BANKS CREATE MONEY?	706
Bank Balance Sheets	706
Using T-Accounts to Show How a Bank Can Create Money	707
The Simple Deposit Multiplier	709
Solved Problem 21-3: Showing How Banks Create Money	710
The Simple Deposit Multiplier versus the Real-World Deposit Multiplier	712
THE CENTRAL BANK	713
How the Central Bank Manages the Money Supply	713
Putting It All Together: Decisions of the Nonbank Public, Banks, and the Central Bank	715
THE QUANTITY THEORY OF MONEY	715
Connecting Money and Prices: The Quantity Equation	715
The Quantity Theory Explanation of Inflation	716
High Rates of Inflation	716
High Inflation in Argentina	717
Making the Connection: The German Hyperinflation of the Early 1920s	718
CONCLUSION	719
An Inside Look: Lowering the Discount Rate Failed to Encourage Bank Lending in Kuwait	720
Key Terms, Summary, Review, Problems and Applications	722

CHAPTER 22: Monetary Policy 728

MONETARY POLICY, DRAKE AND SCULL, AND THE HOUSING MARKET IN DUBAI	728
--	-----

WHAT IS MONETARY POLICY? 730

The Goals of Monetary Policy	730
------------------------------	-----

THE MONEY MARKET AND THE CENTRAL BANK'S CHOICE OF MONETARY POLICY TARGETS 732

Monetary Policy Targets	732
The Demand for Money	732
Shifts in the Money Demand Curve	733
How the Central Bank Manages the Money Supply: A Quick Review	734
Equilibrium in the Money Market	734

Solved Problem 22-2: The Relationship between Treasury Bill Prices and Their Interest Rates	736
A Tale of Two Interest Rates	737
Choosing a Monetary Policy Target	737
The Importance of the Central Bank's Funds Rate	738

MONETARY POLICY AND ECONOMIC ACTIVITY 738

How Interest Rates Affect Aggregate Demand	739
The Effects of Monetary Policy on Real GDP and the Price Level: An Initial Look	739
The Effects of Monetary Policy on Real GDP and the Price Level: A More Complete Account	741
Can the Central Bank Eliminate Recessions?	742
Using Monetary Policy to Fight Inflation	742

Solved Problem 22-3: The Effects of Monetary Policy	743
---	-----

A Summary of How Monetary Policy Works	745
--	-----

Making the Connection: Why Does <i>Khaleej Times</i> Care about Monetary Policy?	745
--	-----

Can the Central Bank Get the Timing Right?	746
--	-----

Making the Connection: With Monetary Policy, It's the Interest Rates—Not the Money—That Counts	747
--	-----

A CLOSER LOOK AT THE CENTRAL BANK'S SETTING OF MONETARY POLICY TARGETS 747

Should the Central Bank Target the Money Supply	748
Why Doesn't the Central Bank Target Both the Money Supply and the Interest Rate?	748
The Taylor Rule	749
Should the Central Bank Target Inflation?	749

Making the Connection: How Does the Central Bank Measure Inflation?	750
---	-----

CONCLUSION 753

An Inside Look at Policy: Dubai Housing Market Slowdown Affects the Rate of Inflation in the UAE	754
--	-----

Key Terms, Summary, Review, Problems and Applications	756
--	-----

CHAPTER 23: Fiscal Policy 760

ARAB GOVERNMENTS TO THE RESCUE 760

FISCAL POLICY 762

What Fiscal Policy Is and What It Isn't	762
Automatic Stabilizers versus Discretionary Fiscal Policy	762
An Overview of Government Spending and Revenue in the Arab World	763

THE EFFECTS OF FISCAL POLICY ON REAL GDP AND THE PRICE LEVEL 764

Expansionary and Contractionary Fiscal Policy: An Initial Look	765
---	-----

Using Fiscal Policy to Influence Aggregate Demand: A More Complete Account	766		
A Summary of How Fiscal Policy Affects Aggregate Demand	767		
THE GOVERNMENT PURCHASES AND TAX MULTIPLIERS	768		
Fiscal Policy in Action: The Egyptian Tax Cut of 2005	770		
The Effect of Changes in Tax Rates	771		
Taking into Account the Effects of Aggregate Supply	771		
The Multipliers Work in Both Directions	772		
Solved Problem 23-3: Fiscal Policy Multipliers	772		
THE LIMITS OF USING FISCAL POLICY TO STABILIZE THE ECONOMY	773		
Does Government Spending Reduce Private Spending?	774		
Crowding Out in the Short Run	774		
Crowding Out in the Long Run	775		
Making the Connection: Is Losing Your Job Good for Your Health?	776		
DEFICITS, SURPLUSES, AND GOVERNMENT DEBT	777		
How the Budget Can Serve as an Automatic Stabilizer	778		
Making the Connection: Did Fiscal Policy Fail during the Great Depression?	779		
Solved Problem 23-5: The Effect of Economic Fluctuations on the Budget Deficit	780		
Should the Budget Always Be Balanced?	781		
The Government Debt	781		
Is Government Debt a Problem?	782		
THE EFFECTS OF FISCAL POLICY IN THE LONG RUN	782		
The Long-Run Effects of Tax Policy	783		
Tax Simplification	784		
Making the Connection: Should Arab NonOil-Based Economies Adopt the "Flat Tax"?	784		
The Economic Effect of Tax Reform	785		
How Large Are Supply-Side Effects?	786		
CONCLUSION	787		
An Inside Look at Policy: How Severe is the Lebanese Public Debt?	788		
Key Terms, Summary, Review, Problems and Applications	790		
CHAPTER 23 Appendix: A Closer Look at the Multiplier	795		
AN EXPRESSION FOR EQUILIBRIUM REAL GDP	795		
A FORMULA FOR THE GOVERNMENT PURCHASES MULTIPLIER	796		
A FORMULA FOR THE TAX MULTIPLIER	797		
THE "BALANCED BUDGET" MULTIPLIER	797		
THE EFFECTS OF CHANGES IN TAX RATES ON THE MULTIPLIER	798		
THE MULTIPLIER IN AN OPEN ECONOMY	799		
Review, Problems and Applications	800		
CHAPTER 24: Inflation, Unemployment, and Central Bank Policy	802		
HOW DO CENTRAL BANKS REACT TO ECONOMIC DOWNTURNS?	802		
THE DISCOVERY OF THE SHORT-RUN TRADE-OFF BETWEEN UNEMPLOYMENT AND INFLATION	804		
Explaining the Phillips Curve with Aggregate Demand and Aggregate Supply Curves	805		
Is the Phillips Curve a Policy Menu?	806		
Is the Short-Run Phillips Curve Stable?	806		
The Long-Run Phillips Curve	806		
The Role of Expectations of Future Inflation	807		
Making the Connection: Do Workers Understand Inflation?	808		
THE SHORT-RUN AND LONG-RUN PHILLIPS CURVES	809		
Shifts in the Short-Run Phillips Curve	810		
How Does a Vertical Long-Run Phillips Curve Affect Monetary Policy?	811		
Making the Connection: Does the Natural Rate of Unemployment Ever Change?	812		
Solved Problem 24-2: Changing Views of the Phillips Curve	813		
EXPECTATIONS OF THE INFLATION RATE AND MONETARY POLICY	814		
The Effect of Rational Expectations on Monetary Policy	815		
Is the Short-Run Phillips Curve Really Vertical?	816		
Real Business Cycle Models	816		
THE EFFECT OF A SUPPLY SHOCK ON THE PHILLIPS CURVE IN THE INDUSTRIAL COUNTRIES: THE CASE OF OIL SHOCKS	817		
Contractionary Monetary Policy and Disinflation	817		
Solved Problem 24-4: Using Monetary Policy to Lower the Inflation Rate	819		
Monetary Policy Credibility	821		
A Failure of Credibility at the Bank of Japan	822		
CONCLUSION	823		
An Inside Look at Policy: The Monetary Policy of the Central Bank of Jordan	824		
Key Terms, Summary, Review, Problems and Applications	826		
CHAPTER 25: Macroeconomics in an Open Economy	832		
CHINESE PRODUCTS THREATEN LOCAL INDUSTRIES IN BOTH DEVELOPED AND DEVELOPING COUNTRIES	832		
THE BALANCE OF PAYMENTS: LINKING THE ARAB WORLD TO THE INTERNATIONAL ECONOMY	834		
The Current Account	836		
The Financial Account	837		
The Capital Account	837		
Why Is the Balance of Payments Always Zero?	837		
Solved Problem 25-1: Understanding the Arithmetic of Open Economies	838		
THE FOREIGN EXCHANGE MARKET AND EXCHANGE RATES	839		
Making the Connection: Exchange Rates in the Financial Pages	840		
Equilibrium in the Market for Foreign Exchange	841		
How Do Shifts in Demand and Supply Affect the Exchange Rate?	842		

Making the Connection: What Explains the Fall and Rise and Fall of the Dollar?	843	MONETARY POLICY AND FISCAL POLICY IN AN OPEN ECONOMY	852
Some Exchange Rates Are Not Determined by the Market	845	Monetary Policy in an Open Economy	853
How Movements in the Exchange Rate Affect Exports and Imports	845	Fiscal Policy in an Open Economy	853
Solved Problem 25-2: The Effect of Changing Exchange Rates on the Prices of Imports and Exports	846	CONCLUSION	855
The Real Exchange Rate	846	An Inside Look: Can the US Current Account Deficit Be Sustained?	856
NET EXPORTS EQUAL NET FOREIGN INVESTMENT	847	Key Terms, Summary, Review Questions, Problems and Applications	858
Domestic Saving, Domestic Investment, and Net Foreign Investment	848	REFERENCES	R1
Solved Problem 25-3: Arriving at the Saving and Investment Equation	849	ENGLISH-ARABIC GLOSSARY	G1
THE EFFECT OF A GOVERNMENT BUDGET DEFICIT ON INVESTMENT	850	INDEX	I1
Making the Connection: Why Is the United States Called the "World's Largest Debtor"?	851	CREDITS	C1

FLEXIBILITY CHART

The following chart helps you organize your syllabus based on your teaching preferences and objectives:

Core	Policy	Optional
<p>CHAPTER 1: Economics: Foundations and Models <i>Discusses the role of models in economic analysis.</i></p> <p>CHAPTER 2: Trade-offs, Comparative Advantage, and the Market System <i>Includes coverage of the role of the entrepreneur, property rights, and the legal system in a market system.</i></p> <p>CHAPTER 3: Where Prices Come From: The Interaction of Demand and Supply</p> <p>CHAPTER 5: Elasticity: The Responsiveness of Demand and Supply</p> <p>CHAPTER 7: Technology, Production, and Costs</p> <p>CHAPTER 8: Firms in Perfectly Competitive Markets</p> <p>CHAPTER 9: Monopolistic Competition: The Competitive Model in a More Realistic Setting</p> <p>CHAPTER 10: Oligopoly: Firms in Less Competitive Markets <i>Includes full coverage of game theory and unique coverage of Porter's Five Forces model of competition.</i></p> <p>CHAPTER 11: Monopoly and Antitrust Policy</p> <p>CHAPTER 14: Comparative Advantage and the Gains from International Trade</p> <p>CHAPTER 15: GDP: Measuring Total Production and Income <i>Covers how total production is measured and the difference between real and nominal variables.</i></p> <p>CHAPTER 16: Unemployment and Inflation <i>Covers the three types of unemployment, how inflation is measured, and the difference between real and nominal interest rates.</i></p> <p>CHAPTER 17: Economic Growth, the Financial System, and Business Cycles <i>Provides an overview of key macroeconomic issues by discussing the business cycle in the context of long-run growth. Discusses the roles of entrepreneurship, financial institutions, and policy in economic growth.</i></p>	<p>CHAPTER 4: Economic Efficiency, Government Price Setting, and Taxes</p> <p>CHAPTER 13: Externalities, Environmental Policy, and Public Goods</p> <p>CHAPTER 22: Monetary Policy <i>Uses the aggregate demand and aggregate supply model to show the effects of monetary policy on real GDP and the price level.</i></p> <p>CHAPTER 23: Fiscal Policy <i>Uses the aggregate demand and aggregate supply model to show how taxes and government spending affect the economy. Includes significant coverage of the supply-side effects of fiscal policy.</i></p>	<p>CHAPTER 1 Appendix: Using Graphs and Formulas</p> <p>CHAPTER 4 Appendix: Quantitative Demand and Supply Analysis <i>Provides a quantitative analysis of rent control.</i></p> <p>CHAPTER 14: Appendix: Multinational Firms <i>Covers the benefits and challenges of operating overseas businesses.</i></p> <p>CHAPTER 6: Consumer Choice and Behavioral Economics <i>Covers utility theory and unique coverage of social influences on behavior and network externalities.</i></p> <p>CHAPTER 7 Appendix: Using Isoquants and Isocosts to Understand Production and Costs <i>Provides a formal analysis of how firms choose the combination of inputs to produce a given level of output.</i></p> <p>CHAPTER 12: Pricing Strategy <i>A unique chapter that covers price discrimination, cost-plus pricing, and two-part tariffs.</i></p> <p>CHAPTER 19: Output and Expenditure in the Short Run <i>Uses the Keynesian 45°-line aggregate expenditure model to introduce students to the short-run relationship between spending and production. The discussion of monetary and fiscal policy in later chapters uses only the aggregate demand and aggregate supply model, which allows instructors to omit Chapter 19.</i></p> <p>CHAPTER 19 Appendix: The Algebra of Macroeconomic Equilibrium <i>Uses equations to represent the aggregate expenditure model described in the chapter.</i></p> <p>CHAPTER 20 Appendix: Macroeconomic Schools of Thought <i>Covers the monetarist model, the new classical model, and the real business cycle model.</i></p> <p>CHAPTER 24: Inflation, Unemployment, and Central Bank Policy <i>Discusses the short-run and long-run Phillips curves. Also covers the roles of expectations formation and central bank credibility in monetary policy.</i></p>

Core	Policy	Optional
<p>CHAPTER 18: The Markets for Labor and Other Factors of Production <i>Covers all factors of production in one chapter and includes coverage of discrimination, unions, compensating differentials, and personnel economics.</i></p> <p>CHAPTER 20: Aggregate Demand and Aggregate Supply Analysis <i>Carefully develops the AD-AS model and then makes the model dynamic to better account for actual movements in real GDP and the price level.</i></p> <p>CHAPTER 21: Money, Banks, and the Federal Reserve System <i>Explores the role of money in the economy, the money supply process and the role of Central Banks</i></p>		<p>CHAPTER 25: Macroeconomics in an Open Economy <i>Explains the linkages among countries at the macroeconomic level and how policymakers in all countries take these linkages into account when conducting monetary and fiscal policy.</i></p>

FEATURES MATRIX

	Chapter Title	Chapter Opener	Making the Connection	An Inside Look
1	Economics: Foundations and Models	The Rising Economic Powers in the East: The Arab World and The Global Economy	Will Women Have Fewer or More Babies if the Government Pays Them To? • Should the Host Governments Protect the Migrant Workers?	Gulf Companies Learn the Price of GlobalizationSource: <i>Financial Times</i>
2	Trade-Offs, Comparative Advantage, And The Market System	Managers Making Choices at BMW: The Cases of BMW-Egypt	Trade-Offs: The Pattern of Charitable Giving in the Arab World • A Story of the Market System in Action: How Do You Make an iPod? • Property Rights in Cyberspace: You Tube and MySpace	The Impact of the Egyptian Revolution on Local Car Feeding Industry Source: <i>Al Ahram Weekly</i>
3	Where Prices Come From: The Interaction of Demand and Supply	Apple and the Demand for iPods	Why Supermarkets Need to Understand Substitutes and Complements • Google Responds to a Growing Arab World Demand for Internet Navigation by launching "Ahlan Online" • Apple Forecasts the Demand for iPods and other Consumer Electronics • The Falling Price of LCD Televisions • Global Fashion Trends Reveals a Growing Demand for Arabian Styles	'Perfect' Oil Price Hides Divisions within OPEC Source: <i>Financial Times</i>
4	Economic Efficiency, Government Price Setting, and Taxes	Why Does the Dubai Government Control Apartment Rents?	The Consumer Surplus from Satellite Television • Price Floors in Labor Markets: The Debate over Minimum Wage Policy • Does Holiday Gift Giving Have a Dead-weight Loss? • Is The Burden of the Social Insurance Tax in Egypt Really Shared Equally between Workers and Firms?	Is Rent Control Really Effective? Source: <i>Gulf News</i>
5	Elasticity: The Responsiveness of Demand and Supply	Do People Care about the Prices of Books?	The Price Elasticity of Demand for Breakfast Cereal • Determining the Price Elasticity of Demand for DVDs by Market Experiment • Short-run Price Elasticity, Long-run Price Elasticity, and Income Elasticity in the Crude Oil Market • What Are Oil Prices So Unstable?	Etisalat Offer a Price Cut for iPhones and Roaming Services Sources: 1. <i>Arabian Business</i> ; 2. <i>Arabian Business</i> .
6	Consumer Choice and Behavioral Economics	Did Amr Diab Make You Switch to Drinking Pepsi-Cola?	Why Do Firms Pay Mohamed Aboutrika to Endorse Their Products? • How can we explain the long lines at Al-Baik Restaurant? • Why Do Hilton Hotels and other Firms Hide Their Prices? • Why Don't Students Study More?	Was Nokia Right to Choose Mohamed Hamaki to Endorse Its New Music Service? Source: AMEinfo.com
7	Technology, Production, and Costs	Sony Uses a Cost Curve to Determine the Price of Radios	Improving Inventory Control at Wal-Mart and Bread Quality at Carrefour • Fixed Costs in the Publishing Industry • Adam Smith's Famous Account of the Division of Labor in a Pin Factory • Economies and Diseconomies of Scale in the Car Industry	Lower Manufacturing Costs Push Down the Price of Flat-Panel TVs Source: <i>Wall Street Journal</i>

	Chapter Title	Chapter Opener	Making the Connection	An Inside Look
8	Firms in Perfectly Competitive Markets	Perfect Competition in the Retail Market for Mobile Phones	The Medical Screening Industry: When to Make Money and When to Lose • Easy Entry Makes the Long Run Pretty Short in the Apple iPhone Apps Store • “Lose Money But Do Not Lose the Market Share”	An industry based on a thousand-year old tradition faces collapseSource: AL-SHORFA.COM
9	Monopolistic Competition: The Competitive Model in a More Realistic Setting	Costa Coffee Expansion in the Middle East: Growth through Product Differentiation	The Rise and Fall of Apple’s Macintosh Computer • A Regional Brand on a Global Mission: Aramex to Join the “Big Four.” UPS, DHL, FedEx, and TNT • Can Dunkin’ Donuts’ Marketing Strategy Help it Compete with Starbucks? • Is Being the First Firm in the Market a Key to Success?	The Growing Competition among Coffeehouses in the Arab World Source: Arroya.com
10	Oligopoly: Firms in Less Competitive Markets	Competing With Carrefour	The Price War Is Escalating between Qatar’s Two Telecom Operators • Is There a Dominant Strategy for Bidding on Souq.com? • Du’s Decision Not to Indulge in a Price War with Etisalat, UAE’s Former Telecom Monopoly • How Jordan’s Fastlink (now Zain) Coped with the Threat of New Competition from Mobilcom in early 2000	Can LuLu Hypermarket Compete with Carrefour in the Middle East? Source: <i>Gulf News</i>
11	Monopoly and Antitrust Policy	Fixed-Line Telecom Services: A Long-Time Monopoly in the Middle East	Is Xbox 360 a Close Substitute for PlayStation 3? • The End of the Arab World’s Mobile Telecom Monopolies • Are Diamond Profits Forever? The De Beers Diamond Monopoly • Is Egypt’s Steel Industry a Monopoly? The Case of Ezz-Dekhela	Kuwait—Telecoms, Mobile, Broadband and Forecasts Source: Budde.com
12	Pricing Strategy	Getting into Dream Park: One Price Does Not Fit All	How Colleges Use Yield Management • Price Discrimination at Foreign Restaurants in the Gulf Countries • Cost-Plus Pricing in the Publishing Industry	Electricity Bills: One Price Does Not Fit All Users Sources: 1. <i>Daily News Egypt</i> ; 2. <i>Jordan Times</i>
13	Externalities, Environmental Policy, and Public Goods	Economic Policy and the Environment	The Importance of Adopting Industrial Energy-efficiency Strategies in the Arab World • Masdar: Building a Leading-Edge Clean Energy Technology in Abu Dhabi • Can Tradable Permits Reduce Global Warming? • Should the Government Run the Health Care System? • How Middle East Chefs and Chain Suppliers Are Dealing with Decreasing Seafood Stocks	Oil-producing Nations Take a Different View on Carbon Taxes Source: <i>Financial Times</i>

Chapter Title	Chapter Opener	Making the Connection	An Inside Look
14 Comparative Advantage and the Gains from International Trade	Trade Policy: Who Wins and Who Loses?	Would the Greater Arab Free Trade Area Agreement (GAFTA) help Arabs Boost Exports? • How Egypt Depends on World International Trade: The Importance of the Suez Canal • The GCC Common Market: Are There Potential Gains? Who Wins and Who Loses? • Why the Egyptian Economy Is Compared with the South Korean Economy • Qualified Industrial Zones and the Middle East Free Trade Area • The WTO Strategy for the Arab Region	The GCC-Singapore Free Trade Agreement Source: <i>Gulf News</i>
15 Measuring Total Production and Income	Emirates Airlines Feel the Impact of the Global Recession and the Fluctuations in GDP	Saudi Arabia Increases Government Spending in 2009: Education, a High Priority • Corruption and the Underground Economy: How Severe Is Corruption in the Arab World? • The Global Financial Crisis and Arab Economies' Nominal and Real GDP	The Government Spending Component of GDP Can Make up for the Decline in Other Components to Help Avoid a Recession Source: IMF
16 Unemployment and Inflation	Unemployment and Inflation: Two Persistent Problems in the Arab World	How Should We Classify Unemployment in the Arab Countries? • Why a Lower Inflation Rate Is Like a Tax Cut for Orascom Telecom Bondholders	Food Prices, Housing Prices, and the "Youthquake": Major Problems Facing the Arab World Sources: 1. <i>Arab Times</i> ; 2. The Majlis
17 Economic Growth, the Financial System, and Business Cycles	Economic Growth in the Arab World: What Is Missing?	The Connection between Economic Prosperity and Health • What Explains Rapid Economic Growth in Botswana?	Economic Growth and Inflation Rate: Are They Positively Related? Source: suite101.com
18 The Markets for Labor and Other Factors of Production	Why Is Real Madrid Paying Cristiano Ronaldo \$17 Million per Year?	Will Your Future Income Depend on Which Courses You Take in College? • Restricting Immigration and the Supply of Labor in the Arab Gulf • Technology and the Earnings of "Superstars"	Would Flexible Employment Enhance Labor Market Efficiency and Increase Labor Force Participation in the GCC E17 countries? Source: AMEinfo.com
19 Output and Expenditure in the Short Run	The Fluctuating Demand in the Arab World: The Effects of the Recent Global Financial Crisis	The Construction Boom in the Gulf (2005–2008) Induces Steel Production Capacity Growth • Business Attempts to Control Inventories, Then . . . and Now • The Multiplier in Reverse: The Great Depression of the 1930s	Jordan Expected Thousands of Workers Home from the Gulf: Is it Good News for the Jordanian Economy? Source: <i>Global Post</i>

	Chapter Title	Chapter Opener	Making the Connection	An Inside Look
20	Aggregate Demand and Aggregate Supply Analysis	The Fortunes of Aramex Follow the Business Cycle	In a Global Economy, How Can You Tell the Imports from the Domestic Goods? • Saudi's Slow Economic Recovery • Can FedEx and the US Economy Withstand High Oil Prices?	How FedEx Middle East Weathered the Recent Global Recession Source: Arabian supply chain.com
21	Money, Banks, and the Central Bank	A New Sudanese Pound Is Worth a Thousand Old Pounds	Money without a Government? The Strange Case of the Iraqi Dinar • Do We Still Need the Fils, Piaster, or Penny? • Is Money the Same as Income or Wealth? • The German Hyperinflation of the Early 1920s	Lowering the Discount Rate Failed to Encourage Bank Lending in Kuwait Source: <i>Arab Times</i>
22	Monetary Policy	Monetary Policy, Drake and Scull, and the Housing Market in Dubai	Why Does <i>Khaleej Times</i> Care about Monetary Policy? • With Monetary Policy, It's the Interest Rates—Not the Money—That Counts • How Does the Central Bank Measure Inflation?	Dubai Housing Market Slowdown Affects the Rate of Inflation in the UAE Source: AMEinfo.com
23	Fiscal Policy	Arab Governments to the Rescue	Is Losing Your Job Good for Your Health? • Did Fiscal Policy Fail during the Great Depression? • Should Arab NonOil-Based Economies Adopt the "Flat Tax"?	How Severe is the Lebanese Public Debt? Source: <i>Daily Star</i>
24	Inflation, Unemployment, and Central Bank Policy	How Do Central Banks React to Economic Downturns?	Do Workers Understand Inflation? • Does the Natural Rate of Unemployment Ever Change?	The Monetary Policy of the Central Bank of Jordan Source: <i>Jordanian Times</i>
25	Macroeconomics in an Open Economy	Chinese Products Threaten Local Industries in Both Developed and Developing Countries	Exchange Rates in the Financial Pages • What Explains the Fall and Rise and Fall of the Dollar? • Why Is the United States Called the "World's Largest Debtor"?	Can the US Current Account Deficit Be Sustained? Source: <i>Economist</i>

Preface

When George Lucas was asked why he made *Star Wars*, he replied, “It’s the kind of movie I like to see, but no one seemed to be making them. So, I decided to make one.” We realized that no one seemed to be writing the kind of textbook we wanted to use in our classes. So, after years of supplementing texts with fresh, lively, real-world examples from newspapers, magazines, and professional journals, we decided to write an economics text that not only delivers complete economics coverage with many real-world business examples, but also presents the unique socio-economic characteristics of the Arab world. Our goal is to introduce to instructors and students of economics the necessary link between economic theories and real life examples of the Arab and Middle East region and keep our classes “widget free.”

THE ARAB WORLD EDITION

The Arab World Edition meets the aspirations of both instructors and students in the region. This unique edition explains the theoretical ideas and applies them to real life examples and case studies from the Arab region, without ignoring the international aspects. Therefore, this edition directly addresses the Arab countries’ characteristics, problems, and economic policies. Arab students will find this textbook readable, simple, and full of case studies and policy analysis that stem from their region. The book also serves as a time saver for economics instructors as they will find all the needed Arab news, case studies, economic policies, and data within each chapter. We believe that students find the study of economics more interesting and easier to master when they see economic analysis applied to the real-world issues that concern them. Given how much has happened recently in the world economy in general, and the Arab economies specifically, we believe we needed the Arab World Edition to provide students with a better understanding of recent economic events and the policy responses to them. The impact of the recent global financial crisis on inflation and economic growth in the Arab countries, the expected effect of minimum wage laws in Saudi Arabia and Bahrain, the opening of car-assembly factories in Egypt, and the public debt problem in Lebanon are examples of case studies and news analyses we are discussing throughout the book.

Here are some key empirical studies and changes in the Arab World Edition:

- Chapter 1, “Economics: Foundations and Models” shows how changes and fluctuations in the global economy today became more relevant for the Arab world, particularly businesses in the Gulf, as a direct result of the Arab economies greater integration in the world economy.
- Chapter 2, “Trade-offs, Comparative Advantage, and the Market System” discusses the impact of the 25th of January Egyptian revolution on the local car-feeding industry and how some managers managed to keep their factories running while others decided to shut down their factories.
- Chapter 4, “Economic Efficiency, Government Price Setting, and Taxes” discusses the effectiveness of rent control policy in the city of Dubai and whether landlords are sticking with the rent cap.
- Chapter 9, “Monopolistic Competition: The Competitive Model in a More Realistic Setting” discusses how world leading coffeehouses such as Costa and Starbucks, among many others, are competing hard in the Arab world by differentiating their products and creating a unique “café experience” to attract the growing young Arab population.
- Chapter 10, “Oligopoly: Firms in Less Competitive Markets” explains how hypermarkets such as Carrefour and LuLu are striving to win the race for market share in the Arab world.

- Chapter 11, “Monopoly and Antitrust Policy” shows how the telephone fixed-line industry is still monopolized by national companies in the Arab world such as Saudi Telecom, Etisalat UAE, Qtel Qatar, Ogero Telecom Lebanon, Orange- Jordan Telecom, and Telecom Egypt while the wireless telecommunication industry moves away from monopolization.
- Chapter 12, “Pricing Strategy” explains the price discrimination policy applied in the electricity sector in Jordan and Egypt.
- Chapter 13, “Externalities, Environmental Policy, and Public Goods” discusses how MASDAR city in Abu Dhabi will soon become a cutting-edge clean energy provider with its state-of-the-art green technology and post-graduate research institute, the Masdar Institute of Science and Technology.
- Chapter 14, “Comparative Advantage and the Gains from International Trade” introduces a new section on the importance of trade to the Arab economy.
- Chapter 16, “Unemployment and Inflation” explains the demographics of unemployment in the Arab world with a focus on youth unemployment.
- Chapter 17, “Economic Growth, the Financial System, and Business Cycles” explores the relationship between economic growth and inflation in the Gulf Cooperation Council (GCC) countries, Syria, Lebanon, Jordan, and Egypt.
- Chapter 21, “Money, Banks, and the Central Bank” shows how, in just 20 years, the new Sudanese pound is worth one thousand old pounds.
- Chapter 22, “Monetary Policy” discusses the impact of the drying-up of lending amid the financial crisis of 2008 and the Dubai housing market slowdown on the rate of inflation in the UAE.
- Chapter 23, “Fiscal Policy” includes a new section on budget deficits, surpluses, and government debt in oil-based and non-oil-based Arab economies.
- The majority of *Making the Connections* are updated using Arab world case studies. For example:

Chapter 5 covers the short run price elasticity, long run price elasticity, and income elasticity in the crude oil market.

Chapter 8 covers the impact of the recent financial crisis on the apparel industry in Egypt.

Chapter 9 covers the successful story of Aramex in Jordan.

Chapter 10 covers the price war between Qatar’s two telecom operators.

Chapter 14 covers the GCC common market and the qualified industrial zones in the Middle East.

Chapter 18 covers the supply of labor in the Arab Gulf.

Chapter 20 covers the economic recovery in Saudi Arabia in 2010.

Chapter 23 covers the discussion on whether Arab non-oil-based economies should adopt the “flat tax”.
- The majority of figures and tables have been updated using the latest data available from the Arab world.
- The majority of chapter openers are updated with new information and data about the Arab world.

The Foundation:

Contextual Learning and Modern Organization

We believe a course is a success if students can apply what they have learned in both personal and business settings and if they have developed the analytical skills to understand what they read in the media. That's why we explain economic concepts by using many real-world business examples and applications in the chapter openers, graphs, *Making the Connection* feature, *An Inside Look* feature, and end-of-chapter problems. This approach helps both business majors and liberal arts majors become educated consumers, voters, and citizens. In addition to our widget-free approach, we also have a modern organization and place interesting policy topics early in the book to pique student interest.

Here are several chapters that illustrate our approach in both microeconomics and macroeconomics.

Microeconomics

We are convinced that students learn to apply economic principles best if they are taught in a familiar context. Whether they open an art studio, do social work, trade on Wall Street, or work for the government, students would benefit from understanding the economic forces behind their work. And though business students will have many opportunities to see economic principles in action in various courses, liberal arts students may not. We therefore use many diverse real-world business and policy examples to illustrate economic concepts and to develop educated consumers, voters, and citizens.

Here are several chapters that illustrate our approach:

- **A STRONG SET OF INTRODUCTORY CHAPTERS.** The introductory chapters provide students with a solid foundation in the basics. We emphasize the key ideas of marginal analysis and economic efficiency. In Chapter 4, “Economic Efficiency, Government Price Setting, and Taxes,” we use the concepts of consumer surplus and producer surplus to measure the economic effects of price ceilings and price floors as they relate to the familiar examples of rental properties and the minimum wage. (We revisit consumer surplus and producer surplus in Chapter 14, “Comparative Advantage and the Gains from International Trade,” where we discuss outsourcing and analyze government policies that affect trade; in Chapter 11, “Monopoly and Antitrust Policy,” where we examine the effect of market power on economic efficiency; and in Chapter 12, “Pricing Strategy,” where we examine the effect of firm pricing policy on economic efficiency.)
- **EARLY COVERAGE OF POLICY ISSUES.** To expose students to policy issues early in the course, we discuss outsourcing in Chapter 1, “Economics: Foundations and Models,” rent control and the minimum wage in Chapter 4, “Economic Efficiency, Government Price Setting, and Taxes,” air pollution, global warming, and whether the government should run the health care system in Chapter 13, “Externalities, Environmental Policy, and Public Goods,” and government policy toward illegal drugs in Chapter 5, “Elasticity: The Responsiveness of Demand and Supply.”
- **COMPLETE COVERAGE OF MONOPOLISTIC COMPETITION.** We devote a full chapter to monopolistic competition (Chapter 9, “Monopolistic Competition: The Competitive Model in a More Realistic Setting”) prior to covering oligopoly and monopoly in Chapter 10, “Oligopoly: Firms in Less Competitive Markets,” and Chapter 11, “Monopoly and Antitrust Policy.” Although many instructors cover monopolistic competition very briefly or dispense with it entirely, we think it is an overlooked

tool for reinforcing the basic message of how markets work in a context that is much more familiar to students than the agricultural examples that dominate other discussions of perfect competition. We use the monopolistic competition model to introduce the downward-sloping demand curve material usually introduced in the monopoly chapter. This helps students grasp the important point that nearly all firms—not just monopolies—face downward-sloping demand curves. Covering monopolistic competition directly after perfect competition also allows for the early discussion of topics such as brand management and the sources of competitive success. Nevertheless, we wrote the chapter so that instructors who prefer to cover monopoly (Chapter 11, “Monopoly and Antitrust Policy”) directly after perfect competition (Chapter 8, “Firms in Perfectly Competitive Markets”) can do so without loss of continuity.

- **EXTENSIVE, REALISTIC GAME THEORY COVERAGE.** In Chapter 10, “Oligopoly: Firms in Less Competitive Markets,” we use game theory to analyze competition among oligopolists. Game theory helps students understand how companies with market power make strategic decisions in many competitive situations. We use familiar companies such as Carrefour, Coca-Cola, PepsiCo, and Dell in our game theory applications.
- **UNIQUE COVERAGE OF PRICING STRATEGY.** In Chapter 12, “Pricing Strategy,” we explore how firms use pricing strategies to increase profits. Students encounter pricing strategies everywhere—when they buy a movie ticket, book a flight for spring break or mid-year vacation, or research book prices online. We use these relevant, familiar examples to illustrate how companies use strategies such as price discrimination, cost-plus pricing, and two-part tariffs.

Macroeconomics

Students come to study macroeconomics with a strong interest in understanding events and developments in the economy. We try to capture that interest and develop students’ economic intuition and understanding in this text. We present macroeconomics in a way that is modern and based in the real world of business and economic policy. And we believe we achieve this presentation without making the analysis more difficult. We avoid the recent trend of using simplified versions of intermediate models, which are often more detailed and more complex than what students need to understand the basic macroeconomic issues. Instead, we use a more realistic version of the familiar aggregate demand and aggregate supply model to analyze short-run fluctuations and monetary and fiscal policy. We also avoid the “dueling schools of thought” approach often used to teach macroeconomics at the principles level. We emphasize the many areas of macroeconomics where most economists agree. And we present throughout real business and policy situations to develop students’ intuition.

Here are a few highlights of our approach to macroeconomics:

- **A BROAD DISCUSSION OF MACRO STATISTICS.** Many students pay at least some attention to the financial news and know that the release of statistics by government agencies can cause movements in stock and bond prices. A background in macroeconomic statistics helps clarify some of the policy issues encountered in later chapters. In Chapter 15, “GDP: Measuring Total Production and Income,” and Chapter 16, “Unemployment and Inflation,” we provide students with an understanding of the uses and potential shortcomings of the key macroeconomic statistics, without getting bogged down in the minutiae of how the statistics are constructed. Chapter 22, “Monetary Policy,” discusses why central banks prefer to measure inflation using the personal consumption expenditures price index rather than the consumer price index.
- **EARLY COVERAGE OF LONG-RUN TOPICS.** We place key macroeconomic issues in their long-run context in Chapter 17, “Economic Growth, the Financial System, and Business Cycles” where we put the business cycle in the context of underlying long-run growth and discuss what actually happens during the phases of the business cycle. We

believe this material is important if students are to have the understanding of business cycles they will need to interpret economic events, yet this material is often discussed only briefly or omitted entirely in other books. We know that many instructors prefer to have a short-run orientation to their macro courses, with a strong emphasis on policy. Accordingly, we have structured Chapter 17 so that its discussion of long-run growth would be sufficient for instructors who want to move quickly to short-run analysis.

- **A DYNAMIC MODEL OF AGGREGATE DEMAND AND AGGREGATE SUPPLY.**

We take a fresh approach to the standard aggregate demand and aggregate supply model. We realize there is no good, simple alternative to using the *AD-AS* model when explaining movements in the price level and in real GDP. But we know that more instructors are dissatisfied with the *AD-AS* model than with any other aspect of the macro principles course. The key problem, of course, is that *AD-AS* is a static model that attempts to account for dynamic changes in real GDP and the price level. Our approach retains the basics of the *AD-AS* model but makes it more accurate and useful by making it more dynamic. We emphasize two points: First, changes in the position of the short-run (upward-sloping) aggregate supply curve depend mainly on the state of expectations of the inflation rate. Second, the existence of growth in the economy means that the long-run (vertical) aggregate supply curve shifts to the right every year. This “dynamic” *AD-AS* model provides students with a more accurate understanding of the causes and consequences of fluctuations in real GDP and the price level.

We introduce the *AD-AS* model in Chapter 20, “Aggregate Demand and Aggregate Supply Analysis,” and use it to discuss monetary policy in Chapter 22, “Monetary Policy,” and fiscal policy in Chapter 23, “Fiscal Policy.” Instructors may safely omit the sections on the dynamic *AD-AS* model without any loss in continuity to the discussion of macroeconomic theory and policy. Chapter 22, “Monetary Policy,” includes a graph, Figure 22-6, “Monetary Policy,” that shows expansionary and contractionary policy using only the basic *AD-AS* model, which makes it possible to skip the dynamic *AD-AS* discussion of monetary policy. Chapter 23, “Fiscal Policy,” also includes a graph, Figure 23-4, “Fiscal Policy,” that shows expansionary and contractionary policy using only the basic *AD-AS* model, which makes it possible to skip the dynamic *AD-AS* discussion of fiscal policy. Chapter 24, “Inflation, Unemployment, and Central Bank Policy,” uses only the basic *AD-AS* model in discussing the Phillips curve.

- **EXTENSIVE COVERAGE OF MONETARY POLICY.** Because of the central role monetary policy plays in the economy and in students’ curiosity about business and financial news, we devote two chapters—Chapters 22, “Monetary Policy,” and 24, “Inflation, Unemployment, and Central Bank Policy”—to the topic. We emphasize the issues involved in the Central Bank’s choice of monetary policy targets, and we include coverage of the Taylor rule. The Arab World Edition includes coverage of the Central Banks’ policies in the Arab countries aimed at dealing with the 2008 global financial crisis.
- **COVERAGE OF BOTH THE DEMAND-SIDE AND SUPPLY-SIDE EFFECTS OF FISCAL POLICY.** Our discussion of fiscal policy in Chapter 23, “Fiscal Policy,” carefully distinguishes between automatic stabilizers and discretionary fiscal policy. We also provide significant coverage of the supply-side effects of fiscal policy.
- **A SELF-CONTAINED BUT THOROUGH DISCUSSION OF THE KEYNESIAN INCOME-EXPENDITURE APPROACH.** The Keynesian income-expenditure approach (the “45°-line diagram,” or “Keynesian cross”) is useful for introducing students to the short-run relationship between spending and production. Many instructors, however, prefer to omit this material. Therefore, we use the 45°-line diagram only in Chapter 19, “Output and Expenditure in the Short Run.” The discussion of monetary and fiscal policy in later chapters uses only the *AD-AS* model, making it possible to omit Chapter 19.

- **COVERAGE OF INTERNATIONAL ASPECTS.** We include two chapters devoted to discuss how Arab countries are integrated in the world economy: Chapter 14, “Comparative Advantage and the Gains from International Trade,” and Chapter 25, “Macroeconomics in an Open Economy.” Having a good understanding of the international trading and financial systems is essential to understanding the macroeconomy and to satisfying students’ curiosity about the economic world around them. In addition to the material in our two international chapters, we weave international comparisons into the narratives of several chapters, including our discussion of labor market institutions in Chapter 24, “Inflation, Unemployment, and Central Bank Policy,” and potential GDP in Chapter 17, “Economic Growth, the Financial System, and Business Cycles.”
- **FLEXIBLE CHAPTER ORGANIZATION.** Because we realize that there are a variety of approaches to teaching principles of macroeconomics, we have structured our chapters for maximum flexibility. For example, our discussion of the Keynesian 45°-line diagram is confined to Chapter 19 so that instructors who do not use this approach can proceed directly to aggregate demand and aggregate supply analysis in Chapter 20, “Aggregate Demand and Aggregate Supply Analysis.” While we devote two chapters to monetary policy, the first of these—Chapter 22, “Monetary Policy”—is a self-contained discussion, so instructors may safely omit the material in Chapter 24, “Inflation, Unemployment, and Central Bank Policy,” if they choose to. Finally, instructors may choose to omit the two international chapters (Chapter 14, “Comparative Advantage and the Gains from International Trade,” and Chapter 25, “Macroeconomics in an Open Economy,”), or cover just one of these two chapters. Please refer to the flexibility chart on **pages xx and xxi** to help select the chapters and order best suited to your classroom needs.

Special Features:

A Real-World, Hands-on Approach to Learning Economics

Business Cases and *Inside Look* News Articles

Each chapter-opening case provides a real-world context for learning, sparks students' interest in economics, and helps to unify the chapter. Companies are integrated in the narrative, graphs, and pedagogical features of the chapter. Here are a few examples of international and regional companies we explore in this Arab World Edition:

- Managers making choices at BMW: The cases of BMW-Egypt and BMW-US (**Chapter 2**, "Trade-offs, Comparative Advantage, and the Market System")
- Can Apple's iPod continue to dominate the market? (**Chapter 3**, "Where Prices Come From: The Interaction of Demand and Supply")
- Did Amr Diab make you switch to drinking Pepsi-Cola? (**Chapter 6**, "Consumer Choice and Behavioral Economics")
- Competing with Carrefour (**Chapter 10**, "Oligopoly: Firms in Less Competitive Markets")
- Costa Coffee expansion in the Arab world (**Chapter 9**, "Monopolistic Competition: The Competitive Model in a More Realistic Setting")
- Getting into Dream Park: One price does not fit all (**Chapter 12**, "Pricing Strategy")
- Emirates Airlines feel the impact of the global recession and the fluctuations in GDP (**Chapter 15**, "GDP: Measuring Total Production and Income")
- The fortunes of Aramex follow the business cycle. (**Chapter 20**, "Aggregate Demand and Aggregate Supply")

Chapter 20

Aggregate Demand and Aggregate Supply Analysis

The Fortunes of Aramex Follow the Business Cycle

The global economic environment plays a crucial role in the development of the air freight industry, which has witnessed a huge boom in recent years in the Middle East. The air freight market has grown at an average rate of about 15 percent per year since 1995, and the Middle East accounted for 5.7 percent of the world's air cargo traffic in tonnage.

The air freight and logistics business revenues follow closely seasonal demand and global and national business cycle patterns. At times when the world experiences faster growth and trade is booming, the air freight and logistics industry witnesses greater revenues and faster growth, and vice versa. In the Middle East, in addition, oil and petrochemical-related industries drive much of the region's economy. Increases in oil prices boost local governments' revenues and spending, resulting in a larger flow of air freight.

Like many successful businesses, Aramex began with a single bright idea by a Jordanian entrepreneur. In 1982, Fadi Ghandour founded Aramex, with headquarters in Amman, as an express wholesaler in the Middle East to

North American express delivery companies such as FedEx. The company rapidly grew and evolved into a global brand recognized for its customized services and innovative multi-product solutions. Today, Aramex employs more than 8,100 people in over 310 locations around the globe, and has a strong alliance network worldwide.

Aramex offers many services such as international and domestic express delivery, freight forwarding, logistics and warehousing, records and information-management solutions, e-business solutions, and online shopping services.

Despite Aramex's great success over the past 30 years, the business cycle has always affected the company. For example, in the first two quarters of 2009 revenues dropped by 10 percent and 8 percent, respectively, as compared with the same quarters in 2008. This decrease in revenues was driven by the significant slowdown in global freight forwarding activity, which fell to a drop of 22 percent in the network's freight revenues. When asked about the impact of the world recession on the company's performance in 2009, Fadi Ghandour, Aramex's founder and CEO, answered: "While the global economic slowdown continued to affect our revenue growth in this period, we maintained focus on operational cost efficiency and customization capabilities to better adapt to customers' changing business needs... This has enabled us to further improve our gross profit margins, control costs, and report an excellent net income growth." Indeed, Aramex reported positive overall profit growth of 25 percent in the first half of 2009 over profits reported in the first 6 months of 2008.

To understand why Aramex and other firms are affected by the business cycle, we need to explore the effects that recessions and expansions have on production, employment, and prices. As you will find in this chapter, although no two business cycles are identical, economists use the aggregate demand and aggregate supply model to explain their general features. In later chapters, we use aggregate demand and aggregate supply to understand how the government can employ fiscal policy and monetary policy to reduce the severity of business cycles.

AN INSIDE LOOK on page 684 discusses how FedEx, Middle East, one of Aramex's strong competitors, we shared the decline in the region's aggregate demand during the latest world recession.

Sources: "Middle Eastern Petrol," *Mail & Express Review*, November 2009; "Aramex Profit Rise 30% as Firm Beatens Trade Cost Concerns," *Gulf News*, July 20, 2009; Aramex 2008 report; The National Investor 7th, www.enr.com/aramex/2009.

LEARNING Objectives

After studying this chapter, you should be able to:

20.1 Identify the determinants of **aggregate demand** and distinguish between **a movement** along the aggregate demand curve and a **shift** of the curve, page 660.

20.2 Identify the determinants of **aggregate supply** and distinguish between **a movement** along the short-run aggregate supply curve and a **shift** of the curve, page 667.

20.3 Use the aggregate demand and aggregate supply model to illustrate the difference between **short-run** and **long-run** macroeconomic equilibrium, page 671.

20.4 Use the **dynamic aggregate demand and aggregate supply model** to illustrate macroeconomic conditions, page 675.

APPENDIX Understand macroeconomic schools of thought, page 691.

Economics in YOUR Life!

Is an Employer Likely to Cut Your Pay During a Recession?

Suppose that you have worked as a barista for a local coffeehouse for two years. From on-the-job training and experience, you have enhanced your coffee-making skills and mastered the perfect latte. Suddenly, the economy moves into a recession, and sales at the coffeehouse decline. Is the owner of the coffeehouse likely to cut the price of lattes and other drinks? Suppose the owner asks to meet with you to discuss your wages for next year. Is the owner likely to cut your pay? As you read the chapter, see if you can answer these questions. You can check your answers against those we provide at the end of the chapter. **» Continued on page 683**

xxxvi

An Inside Look is a two-page feature that shows students how to apply the concepts from the chapter to the analysis of a news article. Select articles deal with policy issues and are titled *An Inside Look at Policy*. Articles are from international and regional sources such as *Financial Times*, *Economist*, *Al-Ahram Weekly*, *Gulf News*, *Arab Times*, and *Arabian Business*. The feature presents an excerpt from an article, analysis of the article, graph(s), and critical thinking questions.

An Inside LOOK

Supply and Demand Determines International Oil Prices

FINANCIAL TIMES, MARCH 16, 2010

“Perfect” Oil Price Hides Divisions within OPEC

The OPEC oil cartel’s catchphrase for its meeting in Vienna tomorrow appears to be: “Why mess with perfection?” However, beneath the surface a dispute is simmering as some members grab market share by floating their promises to make production cuts.

At about US\$80 a barrel, oil prices are where the group’s 12 members want them to be, allowing most producing countries to meet their national budgets. Prices are also low enough to allow the world’s economies to recover, OPEC argues. Ali Naimi, Saudi Arabia’s powerful oil minister, said recently: “The producer is looking at this price, the consumer is looking at the price, and everybody is saying this is great.” Many of Mr. Naimi’s counterparts from other OPEC countries agree.

Over the past week countries including Qatar, Libya, Ecuador, and Iran have advocated that the cartel keep its production ceiling unchanged.

Key Points in the Article

The article discusses how world oil prices are determined by both supply and demand factors. It argues that while oil prices are rebounding from the recent 2008/2009 global crisis that led to weak world demand, OPEC countries’ incentive to cheat by producing more oil beyond their allotted quotas also increases. This behavior by some OPEC countries, such as Angola, Iran, Nigeria, and Venezuela, coupled with a growing supply in Iraq, can send oil prices plunging back to historical lows, despite a recovering steady growth in demand.

Analizing the News

Oil prices reached historical highs in July 2008, hitting a record of US\$147 per barrel. Two months later they crashed amid the global financial crisis, to reach US\$32 a barrel. Since the end of 2008, oil prices have been steadily rebounding to hover around US\$80 in the first quarter of 2010. The current level of price is considered low enough to stimulate higher world growth rates, which will translate to larger future demand for oil. Meanwhile, the price is adequate to finance oil-producing countries’ budgets. So, some OPEC producers are calling for keeping current production ceilings unchanged, in order not to ‘mess’ with a ‘perfect’ price.

At every meeting, OPEC members revise the production ceiling they set for the world’s producers in order to ensure satisfying market demand and meanwhile reduce the instability in oil prices. When demand is high the ceiling is usually increased, cooling down prices. When a recession is looming, the ceiling is reduced so that the market does not become over-supplied. This action reduces oil surpluses and prevents prices from free falling. This mechanism stays strong when OPEC countries hold on to the ceiling and the production quotas assigned to each of them. When compliance rates are low and many OPEC countries do not respect the ceiling and produce more than their quotas, the OPEC cartel loses its power to impact oil prices through controlling of supplies. OPEC has been long criticized for its lack of an enforcement mechanism to ensure the compliance of its members. The figure shows that oil prices are product of both demand and supply. The recession shifts the demand curve to the left to D_2 , reducing the price to P_2 . On the other hand, if oil producers expanded production, the supply curve would shift to the right to S_2 , pushing prices further down to P_3 .

The fragile economies amid the global financial crisis, the ending of many stimulus packages in industrialized countries, and a more regulated energy trading are all factors that will contribute to slowing down the rebounding growth in demand for oil in the near future. The demand is, however, expected to pick up with the rising growth rates in emerging economies, such as China and India. On the other hand, the prospects for supply increases are quite high. Many OPEC countries are demanding an increase in their quotas, paving the way for future possible disputes inside the controversial organization. In addition, Iraq is heading for a strong comeback, adding a few million barrels to oil supplies. Many analysts expect the effect of the supply increase to be stronger than the effect of the growing demand; hence they do not preclude the possibility of lower oil prices in the future.

Thinking Critically

- Like any other good, oil prices are determined by the interaction of both demand and supply sides. How do you think both sides are equally important in determining oil price trends and movements?
- Some OPEC countries have a tendency to cheat by producing beyond their quotas, negatively contributing to the instability of oil prices. Why do you think OPEC affects prices despite the fact that it controls only one third of supply?

Price of oil are determined by both supply and demand.

Here are some examples of the articles featured in *An Inside Look*:

- “‘Perfect’ Oil Price Hides Divisions within OPEC,” *Financial Times*, (Chapter 3, “Where Prices Come From: The Interaction of Demand and Supply”)
- “Etisalat Launches Special Roaming Rates In Egypt And Ksa,” *Arabian Business*, (Chapter 5, “Elasticity: The Responsiveness of Demand and Supply”)
- “Oil Producing Nations Take a Different View on Carbon Taxes,” *Financial Times*, (Chapter 13, “Externalities, Environmental Policy, and Public Goods”)
- “First GCC Trade Accord Signed With Singapore,” *Gulf News*, (Chapter 14, “Comparative Advantage and the Gains from International Trade”)
- “GCC Inflation Down; Rising Food Prices Need ‘Attention’: CBK Gov. Kuwait Inflation at 13-Month High,” *Arab Times*, (Chapter 16, “Unemployment and inflation”)
- “How Severe is the Lebanese Public Debt?,” *The Daily Star*, (Chapter 23, “Fiscal Policy”)

Economics in Your Life

After the chapter-opening real-world business case, we have added a personal dimension to the chapter opener with a feature titled *Economics in Your Life*, which asks students to consider how economics affects their own lives. The feature piques the interest of students and emphasizes the connection between the material they are learning and their own experiences.

ARAMEX

Economics in YOUR Life!

Is an Employer Likely to Cut Your Pay During a Recession?

Suppose that you have worked as a barista for a local coffeehouse for two years. From on-the-job training and experience, you have enhanced your coffee-making skills and mastered the perfect latte. Suddenly, the economy moves into a recession, and sales at the coffeehouse decline. Is the owner of the coffeehouse likely to cut the prices of lattes and other drinks? Suppose the owner asks to meet with you to discuss your wages for next year. Is the owner likely to cut your pay? As you read the chapter, see if you can answer these questions. You can check your answers against those we provide at the end of the chapter. » Continued on page 688

CHAPTER 20 | Aggregate Demand and Aggregate Supply Analysis 683

Economics in YOUR Life!

Continued from page 691

At the beginning of this chapter, we asked you to consider whether during a recession your employer is likely to reduce your pay and cut the prices of the products he or she sells. In this chapter, the dynamic aggregate demand and aggregate supply model showed that even during a recession, the price level rarely falls. A typical firm is therefore unlikely to cut its prices during a recession. So, the owner of the coffeehouse you work in will probably not cut the price of lattes unless sales have declined drastically. We also saw that most firms are more reluctant to cut wages than to increase them because wage cuts can have a negative effect on worker morale and productivity. Given that you are a highly skilled barista, your employer is particularly unlikely to cut your wages for fear that you might quit and work for a competitor.

At the end of the chapter, we use the chapter concepts to answer the questions asked at the beginning of the chapter.


Here are examples of the topics we cover in the new “Economics in Your Life” feature:

- Will you buy an iPod or a Zune? (**Chapter 3**, “Where Prices Come From: The Interaction of Demand and Supply”)
- Does rent control make it easier to find an affordable apartment? (**Chapter 4**, “Economic Efficiency, Government Price Setting, and Taxes”)
- What’s the best country to work in? (**Chapter 15**, “GDP: Measuring Total Production and Income”)
- If you spend more, will the economy grow more? (**Chapter 17**, “Economic Growth, the Financial System, and Business Cycles”)
- Is an employer likely to cut your pay during a recession? (**Chapter 20**, “Aggregate Demand and Aggregate Supply Analysis”)
- How big a raise should you ask for? (**Chapter 24**, “Inflation, Unemployment, and the Central Bank Policy”)

Solved Problems

As we all know, many students have great difficulty handling applied economics problems. We help students overcome this hurdle by including two or three worked-out problems tied to select chapter-opening learning objectives. Our goals are to keep students focused on the main ideas of each chapter and to give students a model of how to solve an economic problem by breaking it down step by step. There are additional exercises in the end-of-chapter *Problems and Applications* section tied to every *Solved Problem*.

88 PART 1 Introduction



The Arab fashion industry is going to become a global appeal.

designed by the world's 1.4 billion Muslims. Consumers in non-Muslim fashion-conscious countries, such as France and the U.S., are estimated to spend more than US\$600 a year on high-end clothing. In the U.S. alone, there are more than 1.5 million Muslims, so the market for Muslim fashion could be worth somewhere between US\$100 or 150 million a year. In some Gulf countries, such as the United Arab Emirates and Qatar, Arabian outfits can sell for as much as US\$10,000. A Dubai-based company is known to sell dresses costing between US\$1,000 and US\$3,000. A client that spends at least US\$50,000 a year is given the privilege of acquiring a copyright for her personal dress design.

Renowned Dubai designer Zuhair Murad is already influencing European fashion as a star that draws the potential of the emerging global market. Aside from ethnic designs, designers are also introducing dramatic new styles, fabrics, and colors to Islamic Arab fashion. For instance, a British designer offers a outfit that combines a beaded shawl with a matching wrap. They sell in an eye-catching pink over lower parts, as part of her Islamic Collections. High-end designers such as Hermes and Gucci are also trying to break into the Muslim market with scarves and other products designed to appeal to Arab tastes.

Celebrity designers such as Christian Lacroix have been incorporating Arabic styles into their wardrobe as they are recognized by the fashion press in the design rather than the body. A new generation of highly talented Arab designers is expected to continue to impact the fashion world with their fusion of modern and Islamic-inspired elements in their creations. Their work reflects the transition from past and simple Arabic designs to more sophisticated creations. The "Arabian Fashion Week," as even held in London in 2010, offered the world a glimpse of global Muslim fashion designs.

By 2010, the fashion industry is expected to be a multi-billion dollar industry, with the U.S. market alone expected to reach US\$1.5 trillion.

Solved Problem 13-4

Low Demand and High Prices in the Saudi Fresh Poultry Market?

During summer, demand for poultry (and food in general) is relatively low. However, Saudi poultry prices are able to sell at relatively high prices because the quantity demanded is low. Can you reach the paradox with the help of a demand and supply graph?

For only about US\$1.00 per kilo, it may seem strange that the market price is higher when demand is low than when demand is high. Can you reach the paradox with the help of a demand and supply graph?

CHAPTER 3 | Where Prices Come From: The Interaction of Demand and Supply 89

SHIFTING THE PROBLEM:

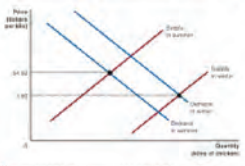
Step 1: Review the chapter material. The problem is about how shifts in demand and supply curves affect the equilibrium price, so you may want to review the section "The Effect of Shifts in Demand and Supply over Time," which begins on page 90.

Step 2: Draw the demand and supply graph. Draw a demand and supply graph, showing the market equilibrium in the market. Label the equilibrium price US\$1.75. Label both the demand and supply curves "summer."

Step 3: Add to your graph a demand curve for winter.

Step 4: Explain the graph. After studying the graph, it is possible to see how the equilibrium price can fall from US\$1.75 to US\$1.00, despite the increase in demand. The supply curve must have shifted to the right in enough to cause the equilibrium price to fall to US\$1.00. Draw the new supply curve, labeled "winter," and label the new equilibrium price US\$1.00. The demand for chicken does increase in winter compared with the summer. But the increase in the supply of chicken between summer and winter is even greater. So, the equilibrium price falls.

CHAPTER 3 | Where Prices Come From: The Interaction of Demand and Supply 90



YOUR TURN: Try to solve problems 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

Shifts in a Curve versus Movements along a Curve

When studying markets using demand and supply curves, it is important to remember that when a shift in a demand or supply curve causes a change in equilibrium price, the change in price does not cause a further shift in demand or supply. For instance, suppose an increase in supply causes the price of a good to fall, while everything else that affects the willingness of consumers to buy the good is constant. The result will be an increase in the quantity demanded but not an increase in demand. For demand to increase, the whole demand curve shifts. The point is the same for supply. If the price of the good falls but everything else that affects the willingness of sellers to supply the good is constant, the quantity supplied decreases but the supply does not. For supply to increase, the whole supply curve must shift.

Economics in YOUR Life!

At the beginning of the chapter, we asked you to consider two questions: would you choose to buy a Zune if it had a lower price than a comparable iPod and would you choose a Zune if the songs sold on Zune Marketplace were cheaper than the songs sold on iTunes? To determine the answers, you have to recognize that iPod and Zune are substitutes, while Zune and songs sold on Zune Marketplace are complements. If a Zune has a lower price than an iPod, then more consumers will purchase the Zune rather than the iPod, provided that the two players have the same features. If consumers believe that the Zune and the iPod are very close substitutes, a fall in the price of Zunes would cause the demand for iPods to decline, as the quantity of Zunes demanded increased. If iPods sold at the price of a Zune sold on Zune Marketplace so that it was lower than the price of the same song on iTunes, even if iPods and Zunes had the same price, the demand for Zunes would increase, and the demand for iPods would decrease.

Additional *Solved Problems* appear in the following areas:

- The Instructor’s Manual
- PowerPoint® slides
- The *Test Item Files* includes problems tied to the *Solved Problems* in the main book.

Making the Connection

Each chapter includes a number of *Making the Connection* features that present real-world reinforcement of key concepts and help students learn how to interpret what they read on the Web or in newspapers. Most *Making the Connection* features use relevant, stimulating, and provocative news stories focused on businesses and policy issues. The majority of the *Making the Connection* features are updated using real-life examples from the Arab world. Some *Making the Connection* features have a supporting end-of-chapter problem to allow students to test their understanding of the topic discussed. Here are some of the new *Making the Connection* features:

- Trade-Offs: The Pattern of Charitable Giving in the Arab World (**Chapter 2**, “Trade-offs, Comparative Advantage, and the Market System”)
- Google Responds to a Growing Arab World Demand on Internet Navigation by launching “Ahlan Online” (**Chapter 3**, “Where Prices Come From: The Interaction of Demand and Supply”)
- The Importance of Adopting Industrial Energy-Efficiency Strategies in the Arab World (**Chapter 13**, “Externalities, Environmental Policy, and Public Goods”)
- The WTO Strategy for the Arab Region (**Chapter 14**, “Comparative Advantage and the Gains from International Trade”)
- Why the Egyptian Economy is compared to the South Korean Economy (**Chapter 14**, “Comparative Advantage and the Gains from International Trade”)
- Why Do Firms Pay Mohamed Aboutrika to Endorse Their Products? (**Chapter 6**, “Consumer Choice and Behavioral Economics”)
- The Rise and Fall of Apple’s Macintosh Computer (**Chapter 9**, “Monopolistic Competition: The Competitive Model in a More Realistic Setting”)
- The End of the Arab World’s Mobile Telecom Monopolies (**Chapter 11**, “Monopoly and Antitrust Policy”)
- Price Discrimination at Foreign Restaurants in the Gulf countries (**Chapter 12**, “Pricing Strategy”)
- In a Global Economy, How Can You Tell the Imports from the Domestic Goods? (**Chapter 20**, “Aggregate Demand and Aggregate Supply Analysis”)
- Saudi’s Slow Economic Recovery (**Chapter 20**, “Aggregate Demand and Aggregate Supply Analysis”)
- Do We Still Need the Fils, Piaster, or penny? (**Chapter 21**, “Money, Banks, and the Federal Reserve System”)
- Why Does Khaleej Times Care about Monetary Policy? (**Chapter 22**, “Monetary Policy”)

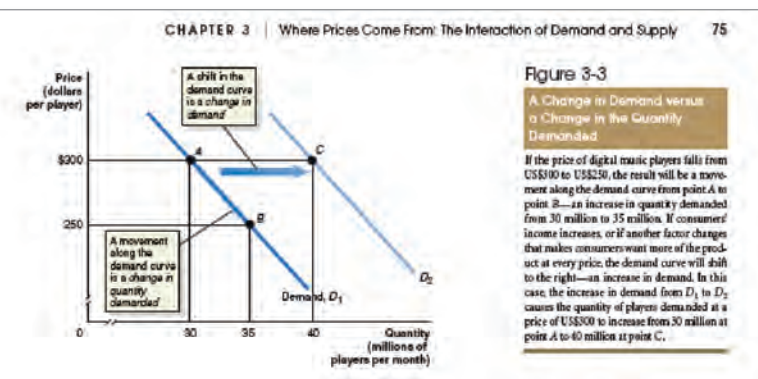


- Is Losing Your Job Good for Your Health? (**Chapter 23**, “Fiscal Policy”)
- The Incredible Falling Dollar (**Chapter 25**, “Macroeconomics in an Open Economy”)

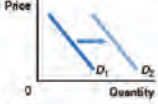
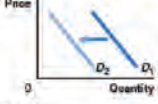

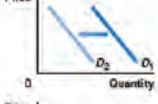
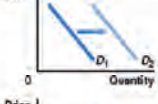

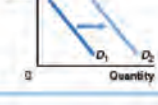
Graphs and Summary Tables

Graphs are an indispensable part of the principles of economics course but are a major stumbling block for many students. Every chapter except Chapter 1 includes end-of-chapter problems that require students to draw, read, and interpret graphs. We use four devices to help students read and interpret graphs:

1. Detailed captions
2. Boxed notes
3. Color-coded curves
4. Summary tables with graphs



74 PART 1 | Introduction

TABLE 3-1 Variables That Shift Market Demand Curves	AN INCREASE IN...	SHIFTS THE DEMAND CURVE...	BECAUSE...
	income (and the good their is normal)		consumers spend more of their higher income on the good.
	income (and the good is inferior)		consumers spend less of their higher income on the good.
	the price of a substitute good		consumers buy less of the substitute good and more of this good.
	the price of a complementary good		consumers buy less of the complementary good and less of this good.
	taste for the good		consumers are willing to buy a larger quantity of the good at every price.
	population		additional consumers result in a greater quantity demanded at every price.
	the expected price of the good in the future		consumers buy more of the good today to avoid the higher price in the future.

New Review Questions and Problems and Applications—Grouped by Learning Objective to Improve Assessment

All the end-of-chapter material—*Summary*, *Review Questions*, and *Problems and Applications*—is grouped under learning objectives. We reorganized chapter *Summaries* and placed them together in one section, which is separated from the *Review Questions and Problems and Applications* section. The goals of this new organization are to make it easier for instructors to assign problems based on learning objectives, both in the book and in MyEconLab, and to help students efficiently track and review chapter summaries. If students have difficulty with a particular learning objective, an instructor can easily identify which end-of-chapter questions and problems support that objective and assign them as homework or discuss them in class. Every exercise in a chapter's *Problems and Applications* section is available in MyEconLab. Using MyEconLab, students can complete these and many other exercises online, get tutorial help, and receive instant feedback and assistance on those exercises they answer incorrectly. Also, student learning will be enhanced by having the summary material grouped by learning objective, which will allow students to focus on the parts of the chapter they found most challenging. Each major section of the chapter, paired with a learning objective, has at least two review questions and three problems.

We also include one or more end-of-chapter problems that test the students' understanding of the content presented in the *Solved Problem* and *Making the Connection* special features in the chapter. Instructors can cover the feature in class and assign the corresponding problem for homework. The Test Item Files also include test questions that pertain to these special features.

Summary

3.1 LEARNING OBJECTIVE

Discuss the variables that influence demand, pages 44–74.

The Demand Side of the Market

The model of demand and supply is the most powerful in economics. The model applies exactly only to perfectly competitive markets, where there are many buyers and sellers, all the products sold are identical, and there are no barriers to new sellers entering the market. But the model can also be used in analyzing markets that don't meet all of these requirements. The quantity demanded is the amount of a good or service that a consumer is willing and able to purchase at a given price. A demand schedule is a table that shows the relationship between the price of a product and the quantity of the product demanded. A demand curve is a graph that shows the relationship between the price of a good and the quantity of the good consumers are willing and able to buy over a period of time. Market demand is the demand by all consumers of a given good or service. The law of demand states that ceteris paribus—holding everything else constant—the quantity of a product demanded increases when the price falls and decreases when the price rises. Demand curves slope downward because of the substitution effect, which is the change in quantity demanded that results from a price change making one good more or less expensive relative to another good, and the income effect, which is the change in quantity demanded of a good that results from the effect of a change in the good's price on consumer purchasing power. Changes in income, the prices of related goods, tastes, population and demographics, and expected future prices all cause the demand curve to shift. Substitutes are goods that can be used for the same purpose. Complements are goods that are used together. A normal good is a good for which demand increases as income increases. An inferior good is a good for which demand decreases as income increases. Demographics are the characteristics of a population with respect to age, race, and gender. A change in demand refers to a shift of the demand curve. A change in quantity demanded refers to a movement along the demand curve as a result of a change in the product's price.

3.2 LEARNING OBJECTIVE

Discuss the variables that influence supply, pages 74–88.

The Supply Side of the Market

The quantity supplied is the amount of a good that a firm is willing and able to supply at a given price. A supply schedule is a table that shows the relationship between the price of a product and the quantity of the product supplied. A supply curve shows on a graph the relationship between the price of a product and the quantity of the product supplied. When the price of a product rises, producing the product is more profitable, and a greater amount will be supplied. The law of supply states that, holding everything else constant, the quantity of a product supplied increases when the price rises and decreases when the price falls. Changes in the prices of inputs, technology, the prices of substitutes in production, expected future prices, and the number of firms in a market all cause the supply curve to shift. Technological change is a positive or negative change in the ability of a firm to produce a given level of output with a given quantity of inputs. A change in quantity supplied refers to a movement along the supply curve as a result of a change in the product's price.

Review, Problems and Applications

Visit www.pearsoned.com/awe/hubbard to complete these exercises online and get instant feedback.

3.1 LEARNING OBJECTIVE

Discuss the variables that influence demand, pages 44–74.

Review Questions

- 1.1 What is a demand schedule? What is a demand curve?
- 1.2 What do economists mean when they use the Latin expression *ceteris paribus*?
- 1.3 What is the difference between a change in demand and a change in quantity demanded?
- 1.4 What is the law of demand? What are the main variables that will cause the demand curve to shift? Give an example of each.

Problems and Applications

- 1.5 (Related to the *Making the Connection* on page 73) For each of the following pairs of products, state which are complements, which are substitutes, and which are unrelated.
 - a. Pepsi and Coke
 - b. Alaskan hot dogs and Faragalls hot dog buns
 - c. Huberman's chocolate halos and Vitac's strawberry jam

McDonald's Big Mac hamburgers or whether it will cause the curve to shift. If the demand curve shifts, indicate whether it will shift to the left or to the right and draw a graph to illustrate the shift.

- a. The price of Burger King's Whopper hamburger declines.
- b. McDonald's distributes coupons for US\$3.00 off on a purchase of a Big Mac.
- c. Because of a shortage of potatoes, the price of French fries increases.
- d. Kentucky Fried Chicken raises the price of a bucket of fried chicken.

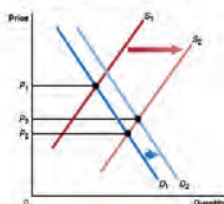
- 1.8 (Related to the *Making the Connection* on page 73) Name three products whose demand is likely to increase rapidly if the following demographic groups increase at a faster rate than the population as a whole.
 - a. Teenagers
 - b. Children under five
 - c. People over age 65

1.9 Suppose the data in the following table present the price of a base model Ford Explorer sport utility vehicle (SUV) and the quantity of Explorers sold. Do these data indicate that the demand curve for Explorers is upward sloping? Explain.

YEAR	PRICE (\$)	QUANTITY
2006	27,865	325,265
2007	28,325	330,648
2008	28,765	352,666

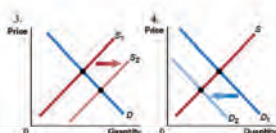
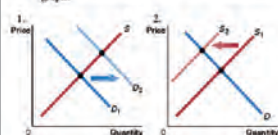
98 PART 1 Introduction

will cause the supply curve for personal computers to shift to the right (from S_1 to S_2). Because this shift in the supply curve results in a lower price (P_3), consumers will want to buy more laptops, and the demand curve will shift to the right (from D_1 to D_2). We know that more laptops will be sold, but we can't be sure whether the price of laptops will rise or fall. That depends on whether the supply curve or the demand curve has shifted farther to the right. I assume that the effect on supply is greater than the effect on demand, so I show the final equilibrium price (P_3) as being lower than the initial equilibrium price (P_1).



Explain whether you agree or disagree with the student's analysis. Be careful to explain exactly what—if anything—you find wrong with her analysis.

- 4.13 Following are four graphs and four market scenarios, each of which would cause either a movement along the supply curve for Pepsi or a shift of the supply curve. Match each scenario with the appropriate graph.



- a. A decrease in the supply of Coke
- b. A drop in the average household income in the United States from US\$42,000 to US\$41,000
- c. An improvement in soft-drink bottling technology
- d. An increase in the price of sugar

4.14 David Scurdam, an economist at Loyola University of Chicago, makes the following observation of the world cotton market at the beginning of the American Civil War:

As the supply of American-grown raw cotton decreased and the price of raw cotton increased, there would be a movement along the supply curve of non-American raw cotton suppliers, and the quantity supplied by other well-known international cotton producers such as Egypt would increase.

Illustrate this observation with one demand and supply graph for the market for American-grown cotton and another demand and supply graph for Egyptian cotton. Make sure your graphs clearly show (1) the initial equilibrium before the decrease in the supply of American-grown cotton and (2) the final equilibrium, after the increase of Egyptian cotton. Also clearly show any shifts in the demand and supply curves for each market.

Source: David C. Scurdam, "King Cotton: Monarch of the Market for the Market for Raw Cotton on the Eve of the American Civil War," *The Economic Library Review*, Vol. 2, No. 1 (Spring 1991), p. 114.

- 4.15 Proposals have been made to increase government regulation of firms providing childcare services by, for instance, setting education requirements for childcare workers. Suppose that these regulations increase the quality of childcare and cause the demand for childcare services to increase. At the same time, assume that complying with the new government regulations increases the costs of firms providing childcare services. Draw a demand and supply graph to illustrate the effects of these changes in the market for childcare services. Briefly explain whether the total quantity of childcare services purchased will increase or decrease as a result of regulation.

Integrated Supplements

Resources for the Instructor

Instructor's Manuals

The *Instructor's Manuals* include chapter-by-chapter summaries, learning objectives, extended examples and class exercises, teaching outlines incorporating key terms and definitions, teaching tips, topics for class discussion, new *Solved Problems*, and solutions to all review questions and problems in the book. The *Instructor's Manual* is available for download from the Instructor's Resource Center.

Test Item Files

The Test Item File includes 2,000 multiple-choice questions, true/false, short-answer, and graphing questions. There are questions to support each key feature in the book. Test questions are annotated with the following information:

- **Difficulty:** 1 for straight recall, 2 for some analysis, 3 for complex analysis
- **Type:** multiple-choice, true/false, short-answer, essay
- **Topic:** the term or concept the question supports
- **Skill:** fact, definition, analytical, conceptual
- Learning objective
- **AACSB** (see description that follows)
- Page number
- **Special feature in the main book:** chapter-opening business example, Economics in Your Life, Solved Problem, Making the Connection, and An Inside Look.

The Association to Advance Collegiate Schools of Business (AACSB)

The Test Item File connects select questions to the general knowledge and skill guidelines found in the AACSB Assurance of Learning Standards.

What is the AACSB?

AACSB is a not-for-profit corporation of educational institutions, corporations, and other organizations devoted to the promotion and improvement of higher education in business administration and accounting. A collegiate institution offering degrees in business administration or accounting may volunteer for AACSB accreditation review. The AACSB makes initial accreditation decisions and conducts periodic reviews to promote continuous quality improvement in management education. Pearson Education is a proud member of the AACSB and is pleased to provide advice to help you apply AACSB Assurance of Learning Standards.

What are AACSB Assurance of Learning Standards?

One of the criteria for AACSB accreditation is the quality of the curricula. Although no specific courses are required, the AACSB expects a curriculum to include learning experiences in such areas as:

- Communication
- Ethical Reasoning
- Analytic Skills



- Use of Information Technology
- Multicultural and Diversity
- Reflective Thinking

These six categories are AACSB Assurance of Learning Standards. Questions that test skills relevant to these standards are tagged with the appropriate standard. For example, a question testing the moral questions associated with externalities would receive the Ethical Reasoning tag.

How Can Instructors Use the AACSB Tags?

Tagged questions help you measure whether students are grasping the course content that aligns with the AACSB guidelines noted above. This in turn may suggest enrichment activities or other educational experiences to help students achieve these skills.

TestGen

The computerized TestGen package allows instructors to customize, save, and generate classroom tests. The test program permits instructors to edit, add, or delete questions from the Test Item Files; edit existing graphics and create new graphics; analyze test results; and organize a database of tests and student results. This software allows for extensive flexibility and ease of use. It provides many options for organizing and displaying tests, along with search and sort features. The software and the Test Item Files can be downloaded from the Instructor's Resource Center (accessed via www.pearsoned.co.uk/awe/hubbard).

PowerPoint® Lecture Presentation

A comprehensive set of PowerPoint® slides that can be used by instructors for class presentations or by students for lecture preview or review. The presentation includes all the graphs, tables, and equations in the textbook.

Instructors may download these PowerPoint® presentations from the Instructor's Resource Center (accessed via www.pearsoned.co.uk/awe/hubbard).

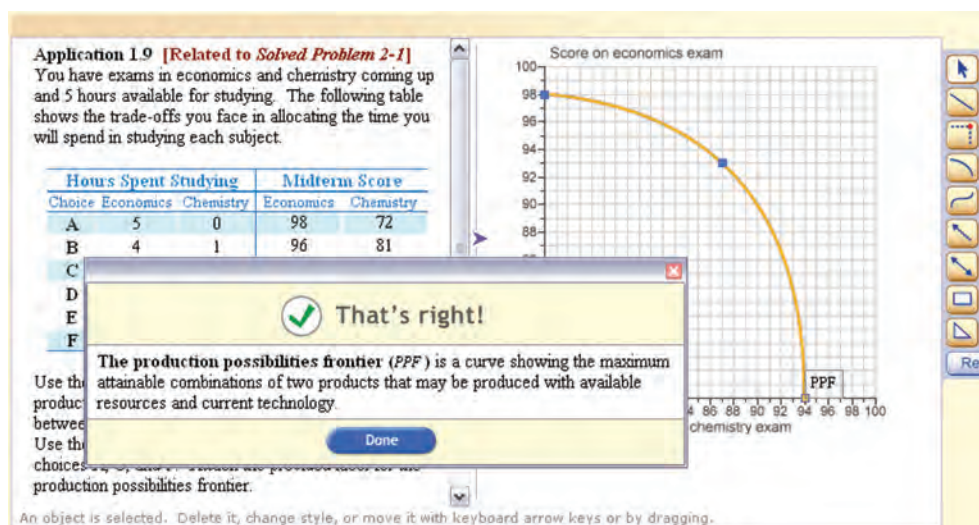
For the Instructor

MyEconLab is an online course management, testing, and tutorial resource. Instructors can choose how much, or how little, time to spend setting up and using MyEconLab.

Each chapter contains two Sample Tests, Study Plan Exercises, and Tutorial Resources. Student use of these materials requires no initial set-up by their instructor. The online Gradebook records each student's performance and time spent on the Tests and Study Plan and generates reports by student or by chapter.

Instructors can assign Tests, Quizzes, and Homework in MyEconLab using four resources:

- Pre-loaded Sample Test questions
- Problems similar to the end-of-chapter problems
- Test Item File questions
- Self-authored questions using Econ Exercise Builder



Exercises use multiple-choice, graph drawing, and free-response items, many of which are generated algorithmically so that each time a student works them, a different variation is presented.

MyEconLab grades every problem, even those with graphs. When working homework exercises, students receive immediate feedback with links to additional learning tools.

For the Student

MyEconLab puts students in control of their learning through a collection of testing, practice, and study tools tied to the online, interactive version of the textbook and other medial resources.

Within MyEconLab's structured environment, students practice what they learn, test their understanding, and pursue a personalized Study Plan generated from their performance

on Sample Tests and tests created by their instructors. At the core of MyEconLab are the following features:

- Sample Tests, two per chapter
- Personal Study Plan
- Tutorial Instruction
- Graphing Tool

Sample Tests

Two Sample Tests for each chapter are pre-loaded in MyEconLab, enabling students to practice what they have learned, test their understanding, and identify areas in which they need to do further work. Students can study on their own, or they can complete assignments created by their instructor.

Personal Study Plan

Based on a student's performance on tests, MyEconLab generates a personal Study Plan that shows where he or she needs further study. The Study Plan consists of a series of additional practice exercises with detailed feedback and guided solutions and keyed to other tutorial resources.

The screenshot displays the MyEconLab 'Study Plan' page. The sidebar on the left contains navigation buttons for 'My Courses', 'Student' (with sub-options: Course Home, Economic News, Quizzes & Tests, Study Plan, Homework, Results, Calendar, Textbook Resources, Student Center), and 'Instructor' (with sub-option: Course Manager). The main content area is titled 'Study Plan' and includes instructions on how to use the study plan. Below the instructions is a table titled 'Book Contents for All Topics' with columns for 'Correct', 'Worked', and 'Available Exercises'. The table lists four chapters with their respective available exercises.

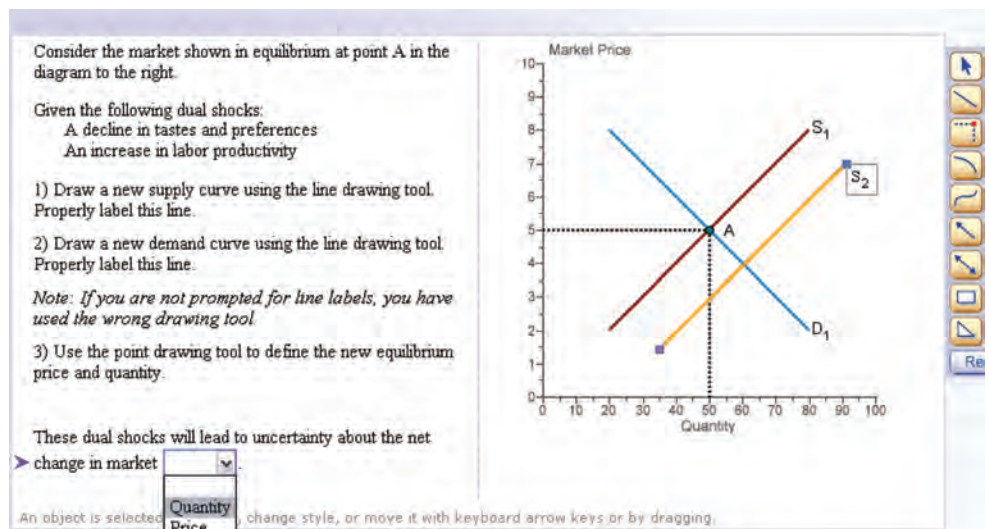
Book Contents for All Topics	Correct	Worked	Available Exercises
Ch 1: Economics: Foundations and Models			60
Ch 2: Trade-Offs, Comparative Advantage, and the Market System			26
Ch 3: Where Prices Come From: The Interaction of Demand and Supply			49
Ch 4: Economic Efficiency, Government Price Setting, and Taxes			49

Tutorial Instruction

Launched from many of the exercises in the Study Plan, MyEconLab provides tutorial instruction in the form of step-by-step solutions and other media-based explanations.

Graphing Tool

A graphing tool is integrated into the Tests and Study Plan exercises to enable students to make and manipulate graphs. This feature helps students understand how concepts, numbers, and graphs connect.



Additional MyEconLab Tools

MyEconLab also includes the following additional features:

1. **Economics in the News**—Links to regional articles from the Financial Times
2. **eText**—While working in the Study Plan or completing homework assignments, part of the tutorial resources available is a link directly to the relevant page of the text so the student can review the appropriate material to help them complete the exercise
3. **Glossary**—a searchable version of the textbook glossary with additional examples and links to related terms
4. **Glossary Flashcards**—every key term is available as a flashcard, allowing students to quiz themselves on vocabulary from one or more chapters at a time
5. **Ask the Author**—e-mail economic related questions to the author

A Word of Thanks

We would like to express our deep appreciation to the Pearson team, as we benefited greatly from their dedication and professionalism. Sophie Bulbrook, the Senior Development Editor and Editorial Team Leader of Arab World Editions, worked really hard for more than a year to ensure that this book was as good as it could be. Sophie's support, advice, and encouragement were crucial to us, especially during the writing stage of the manuscript. Acquisitions Editor Rasheed Roussan is the person who first started the arrangements of this project. Rasheed was always a great help to us with his kind words and advice. He was very keen to dedicate much of his time to make this project a success. We were also pleased to work with Kate Sherington, Project Editor, and Fay Gibbons, Editorial Assistant. Their editorial comments were very helpful. We would also like to extend our thanks to all reviewers of the Arab World Edition for their time and effort, and for their valuable remarks.

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Ashraf Galal Eid
 Amany El Anshasy

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Comparative Advantage and the Gains from International Trade

Trade Policy: Who Wins and Who Loses?

Trade is, simply, the act of buying or selling. Is there a difference between trade that takes place within a country and international trade? Within the United Arab Emirates, for example, domestic trade makes it possible for consumers in Abu Dhabi to eat chicken grown in Ras Al-Khaima or for consumers in Dubai to use furniture made in Sharjah. Similarly, international trade makes it possible for consumers in the UAE to drink milk from Saudi Arabia or use HD-DVD players from Japan. But one significant difference between domestic trade and international trade is that international trade is more controversial. To see this, think of 30 years ago when most of the TVs, shoes, clothing, and toys consumed in the Arab world were produced mainly by firms in other countries. Today, some of these goods are produced within the Arab world. This shift has benefited Arab workers because domestic firms were able to grow and hire more labor,

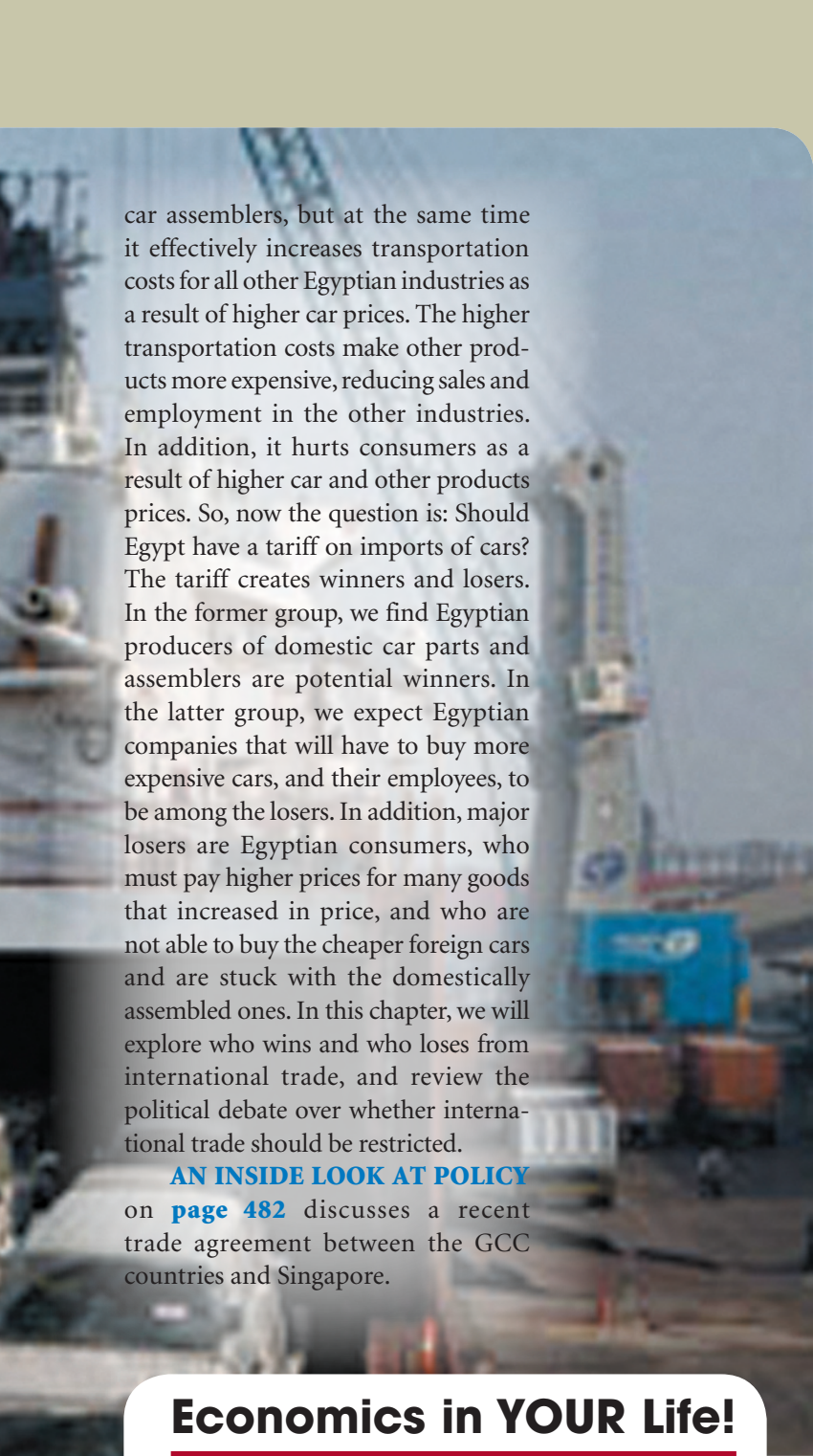
and hence more job opportunities were created. Not surprisingly, many Arab countries favor reducing international trade because they believe doing so would preserve domestic jobs. Arab consumers, on the other hand, are expected to lose because foreign-made goods, e.g., Chinese goods, have lower prices than the Arab-made goods.

But do restrictions on trade actually preserve jobs? In fact, restrictions on trade may preserve jobs in particular industries, but only at the cost of reducing jobs in other industries. Consider, for example, Egypt's car industry. Egypt imposes a 140 percent import duty (tariff) on fully built imported cars with an engine capacity larger than 1.6 liters. Smaller cars with engines in the range of 1.3 to 1.6 liters used to be subject to a 104 percent duty, until it was reduced to 40 percent in 2005. On the other hand, Egypt has international car brands assembled locally with at least 45 percent domestically manufactured component parts, as required by local laws designed to support the growth of the domestic parts and assembly industry. The imported proportion of the car parts falls under a considerably lower

tariff bracket than fully built cars. This difference in the tariff rate between fully built cars and car parts has had implications for the prices of cars in Egypt.

For example, in 2009, a 1.5L Korean-made imported Hyundai Matrix would on average cost the Egyptian consumer around US\$15,000; this is relatively cheaper than the sale price of the same Egyptian assembled Matrix. However, after adding the 40 percent tariff to the import price of the Korean-made Hyundai Matrix it becomes far more expensive than its Egyptian-assembled counterpart. Therefore, based on this scenario, the Egyptian-assembled Hyundai car can only be sold in the market as long as the tariff stays. If the tariff is lifted or substantially reduced, it will be cheaper for the consumer to buy the Korean-made car. In that sense, the tariff protects the Egyptian producer by restricting imports and foreign competition. But is restricting international trade a good idea? Some would argue in favor of restrictions and some against.

The tariff helps Egyptian firms that produce car parts and Egyptian



car assemblers, but at the same time it effectively increases transportation costs for all other Egyptian industries as a result of higher car prices. The higher transportation costs make other products more expensive, reducing sales and employment in the other industries. In addition, it hurts consumers as a result of higher car and other products prices. So, now the question is: Should Egypt have a tariff on imports of cars? The tariff creates winners and losers. In the former group, we find Egyptian producers of domestic car parts and assemblers are potential winners. In the latter group, we expect Egyptian companies that will have to buy more expensive cars, and their employees, to be among the losers. In addition, major losers are Egyptian consumers, who must pay higher prices for many goods that increased in price, and who are not able to buy the cheaper foreign cars and are stuck with the domestically assembled ones. In this chapter, we will explore who wins and who loses from international trade, and review the political debate over whether international trade should be restricted.

AN INSIDE LOOK AT POLICY on **page 482** discusses a recent trade agreement between the GCC countries and Singapore.

LEARNING Objectives

After studying this chapter, you should be able to:

- 14.1 Discuss the role of **international trade** in the **Arab world economy**, page 454.
- 14.2 Understand the difference between **comparative advantage** and **absolute advantage** in international trade, page 459.
- 14.3 Explain **how countries gain** from international trade, page 461.
- 14.4 Analyze the economic effects of **government policies** that restrict international **trade**, page 468.
- 14.5 Evaluate the arguments over **trade policy** and **globalization**, page 476.

Economics in YOUR Life!

Why Does Egypt Still Have a High Tariff on Imported Cars?

The rapid growth of the car industry puts more pressure on the government to keep a high tariff. Politicians often support restrictions on trade to convince people that they are working for their best interests. The workers in the industries protected by tariffs are likely to vote for these politicians because the workers think trade restrictions will protect their jobs. But these workers are just a small fraction of the population. The majority of people are not workers in the industries that benefit from the protection from foreign competition. Millions of consumers have had to pay higher prices not only for cars, but also for transportation in general. How, then, have car manufacturers convinced the Egyptian government to keep the tariff and why don't most people oppose it? As you read the chapter, see if you can answer this question. You can check your answers against those we provide at the end of the chapter. ➤ **Continued on page 480**

Markets for internationally traded goods and services can be analyzed using the tools of demand and supply that we developed in Chapter 3. We saw in Chapter 2 that trade in general—whether within a country or between countries—is based on the principle of comparative advantage. In this chapter, we look more closely at the role of comparative advantage in international trade. We also use the concepts of consumer surplus, producer surplus, and deadweight loss from Chapter 4 to analyze government policies that interfere with trade. With this background, we can return to the political debate over whether the Arab world benefits from international trade. We begin by looking at how large a role international trade plays in the Arab world economy.

14.1 LEARNING OBJECTIVE

14.1 | Discuss the role of international trade in the Arab World economy.

The Arab World in the International Economy

International trade has significantly grown over the past 50 years. The increase in trade is the result of the falling costs of shipping products around the world, the spread of inexpensive and reliable communications, and changes in government policies. Firms can use large container to send their products across the oceans at low cost. Businesspeople today can travel to Europe or Asia using fast, inexpensive, and reliable air transportation. The Internet allows managers to communicate in seconds at a very low cost with customers and suppliers around the world. These and other improvements in transportation and communication have created a global marketplace that earlier generations of businesspeople could only dream of.

In addition, over the past 50 years, many governments have changed policies to encourage international trade. For example, tariff rates have fallen. A **tariff** is a tax imposed by a government on *imports* of a good into a country. **Imports** are goods and services bought domestically but produced in other countries. The average tariff rate has dramatically dropped in many countries. Today, for example, this rate is less than 2 percent in the U.S., 0.7 percent in Saudi Arabia, and 7 percent in Bahrain. Many countries around the world have signed free trade agreements, by which tariffs among signatory countries are eliminated or substantially reduced.

In North America, most tariffs between Canada, Mexico, and the United States were eliminated following the passage of the North American Free Trade Agreement (NAFTA) in 1994. Twenty-seven countries in Europe have formed the European Union, which has eliminated all tariffs among member countries, greatly increasing both imports and **exports**, which are goods and services produced domestically but sold to other countries. In the Arab-Gulf area, six Arab countries formed the Gulf Cooperation Council (GCC) in 1981, allowing free trade among the member countries. In 2008, the GCC announced a common market that will act as a unified bloc, after members unify their tariffs, when trading with other countries and blocs around the world. In 2005, 17 Arab countries in the MENA region, including the six GCC countries, signed the Greater Arab Free Trade Agreement (GAFTA) that aimed to encourage inter-Arab trade.

Tariff A tax imposed by a government on imports.

Imports Goods and services bought domestically but produced in other countries.

Exports Goods and services produced domestically but sold to other countries.

**Making
the
Connection**

Would the Greater Arab Free Trade Area Agreement (GAFTA) help Arabs Boost Exports?

Did you know that Arab countries began their first steps toward economic integration before European countries? This is a question that economics instructors in the Arab world often ask their students when they discuss regional trade agreements. Students usually answer, doubtfully, with a big “No.” In

fact, several attempts to promote regional economic integration among Arab countries have been made over the past 60 years (starting with the creation of the Arab League in 1945). Examples of these attempts are: (i) in 1953, six Arab countries signed the Agreement on Trade Flow and Transit Rules (Egypt, Iraq, Jordan, Lebanon, Saudi Arabia, and Syria), (ii) in 1964, Arab countries established the Arab Common Market (ACM) whose primary goal was to have full exemption from tariff and non-tariff barriers, and (iii) in 1981, the Economic and Social Council of the Arab League signed the Agreement on Trade Flow Facilitation and Development, which was a declaration of intent by the signatories to negotiate the full exemption of tariffs and nontariff measures for manufactured and semi-manufactured goods. The first two agreements created limited benefits to Arab countries as many of them did sign the agreements.¹

Finally, in February 1997, the Arab Economic Union decided to create the Great Arab Free Trade Area (GAFTA) by the year 2008. For this purpose, the majority of the Arab League members signed a treaty aiming at the elimination of all trade barriers between them by gradually lowering by 10 percent each year the customs duties on their trade, gradually removing trade barriers in a process that started in February 1998. In September 2001, the Arab League's Economic and Social Council met in Riyadh and decided to move the deadline for the end of the transition period forward to early 2005.² As of 2009, there are 17 Arab countries in GAFTA: Jordan, the UAE, Bahrain, Tunisia, Saudi Arabia, Syria, Iraq, Oman, Palestine, Qatar, Kuwait, Sudan, Lebanon, Libya, Egypt, Yemen, and Morocco.

The main privileges given to Arab countries are summarized as follows:³

1. Since 2005, goods of Arab origin and traded between GAFTA members are fully exempted from customs duties.
2. A preferential treatment is granted to the least developing Arab countries: Sudan and Yemen. These countries enjoy free access to the markets of GAFTA members while they are obligated to reduce customs duties on imports from GAFTA members by only a percentage of 16 percent to 20 percent.
3. Palestine is granted free access to the GAFTA markets with no obligation to give similar treatment to its imports from GAFTA members.
4. No additional taxes should be imposed on goods originated in GAFTA members.
5. Elimination of all non-tariff barriers such as: excessive technical barriers, excessive administrative barriers, and excessive financial barriers (transit fees).
6. GAFTA members should treat goods imported from each other the same as domestically produced goods.

Many economists are skeptical about the extent to which GAFTA has been successful in promoting trade among its members. For example, the 2008 World Bank Economic Developments and Prospects Report indicates that intraregional trade among GAFTA countries is low compared with its potential, and with levels achieved by economic blocs elsewhere in the world. For example, intraregional merchandise exports among GAFTA members are about 9 percent of total bloc exports, which is much less than the levels achieved by blocs such as the North American Free Trade Agreement (NAFTA) and the Association of Southeast Asian Nations (ASEAN). A very common explanation of these low levels of intraregional trade is because production and trade structures across the Arab world do not complement each other. The following table shows the level of trade with partners in several regional agreements within the Arab world.



Goods of Arab origin traded between GAFTA members should be treated the same as local imports, and therefore are fully exempted from customs duties.

(Continued)

Merchandise Imports and Exports with Partners as a Share of Total Merchandise Trade in 2007

AGREEMENT COUNTRY	AGADIR AGREEMENT*	ARAB MAGHREB UNION**	GCC***	GAFTA
Algeria	—	1.2	—	—
Bahrain	—	—	35	38.6
Egypt	1.5	—	—	13.6
Iraq	—	—	—	14.7
Jordan	3	—	—	35.7
Kuwait	—	—	4.5	7.4
Lebanon	—	—	—	30.6
Libya	—	2.7	—	5.1
Morocco	1.2	2.2	—	7.5
Oman	—	—	11	12.2
Qatar	—	—	6.4	7.5
Saudi Arabia	—	—	4.1	9.1
Syria	—	—	—	46.7
Tunisia	1.4	6.7	—	7.4
UAE	—	—	4.8	7.4
Yemen	—	—	—	24.5
Mauritania	—	2.8	—	—
Sudan	—	—	—	18.3

Sources: 2008 MENA Economic Developments and Prospects: Regional Integration for Global Competitiveness,” The World Bank, www.worldbank.org.

*Agadir Agreement is a free trade zone between the Arabic Mediterranean nations. It was signed in Rabat, Morocco, on February 25, 2004, and aims at establishing a free trade area between Jordan, Tunisia, Egypt, and Morocco.

** Arab Maghreb Union is a pan-Arab trade agreement aiming at establishing economic and political unity between North African countries, namely: Algeria, Libya, Mauritania, Morocco, and Tunisia.

*** GCC, the Gulf Cooperation Council, is a trade bloc involving the six Arab countries of the Arab Gulf: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE.

The percentages shown in the last column of the previous table indicate that, except for a few successful cases, such as Syria, Bahrain, and Jordan, the level of trade between Arab countries in the same free trade agreement is really low. This explains why many economists are raising doubts as to whether GAFTA and other Arab sub-regional free trade agreements can achieve their desired economic goals.

Source 1: “League of Arab States: Greater Arab Free Trade Agreement,” The Institute for Domestic and International Affairs, Inc. (IDIA), Rutgers Model United Nations, 2007.

Source 2: “Arab Free Trade Area,” European Institute for Research on Euro-Arab Cooperation, www.medeia.be/en/themes/economy-and-trade/arab-free-trade-area-afta/.

Source 3: “The Great Arab Free Trade Area: An Explanatory Guide,” The General Assembly of the Arab League (in Arabic), 2007.

The Importance of Trade to the Arab Economy

Arab consumers buy increasing quantities of goods and services produced in other countries. At the same time, businesses sell increasing quantities of goods and services to consumers in other countries. *Merchandise exports and imports* refer to internationally traded manufactured goods or raw materials such as cloths and petroleum. Also, countries trade commercial *services* such as telecommunication or financial and insurance services. The total exports of a country as a percentage of its gross domestic product reflects the importance of international trade in that particular economy.

Figure 14-1 shows the share of foreign trade in some selected Arab nations’ incomes between 1995 and 2007. As major oil exporters, the GCC countries depend heavily on

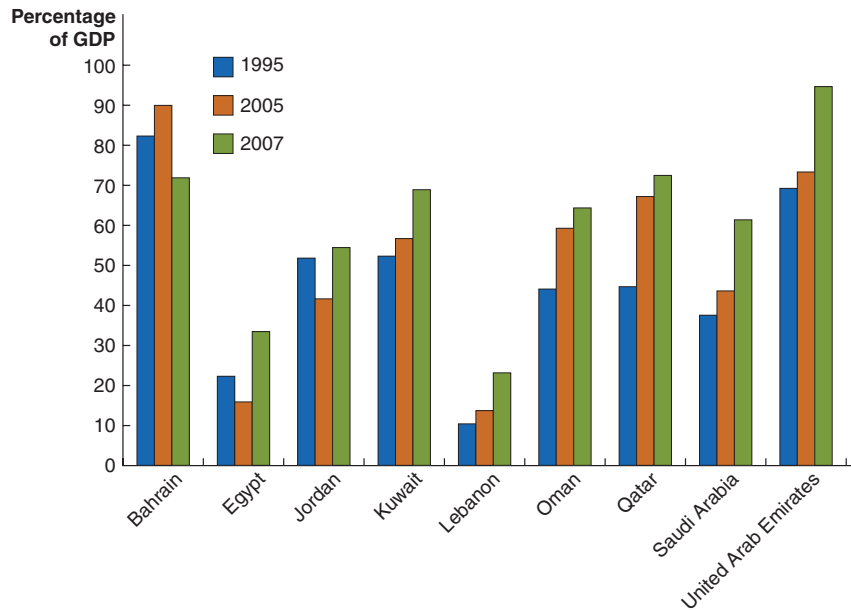


Figure 14-1

Exports of Goods and Services as a Percentage of GDP in selected Arab countries

Exports are increasing in importance for many Arab countries' incomes. Arab oil-producing countries experienced an increasing export share in 2007 due to the increase in oil prices.

Source: World Bank, World Development Indicators (WDI), 2009.

exports, which made up more than 50 percent of their incomes in 2007. In Jordan, due to increasing trade with other Arab countries and the promotion of free trade, international trade made up more than 50 percent of its income. Despite less dependence on international trade, the importance of exports in Egypt's and Lebanon's incomes almost doubled between 2000 and 2007. During the same period, the UAE depended on exports for 95 percent of its GDP; exceeding, by a large margin (more than 20 percent), Qatar, the next most dependent on exports among this group of Arab countries.

Figure 14-2 shows us that merchandise exports in major Arab countries have grown almost eightfold in value between 1998 and 2008. That reflects both increases in the volume of exports and the prices of major exports, mainly oil, petroleum products, and petrochemicals. Services in recent years have also seen important developments in the Arab world.

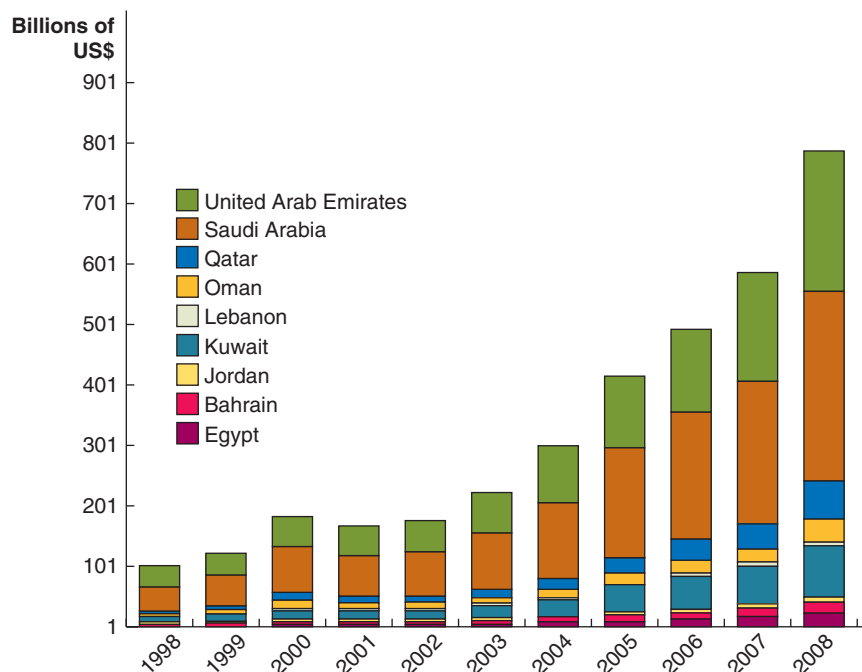


Figure 14-2

Merchandise exports in Selected Arab countries

Merchandise exports in major Arab countries have grown almost eightfold in value between 1998 and 2008.

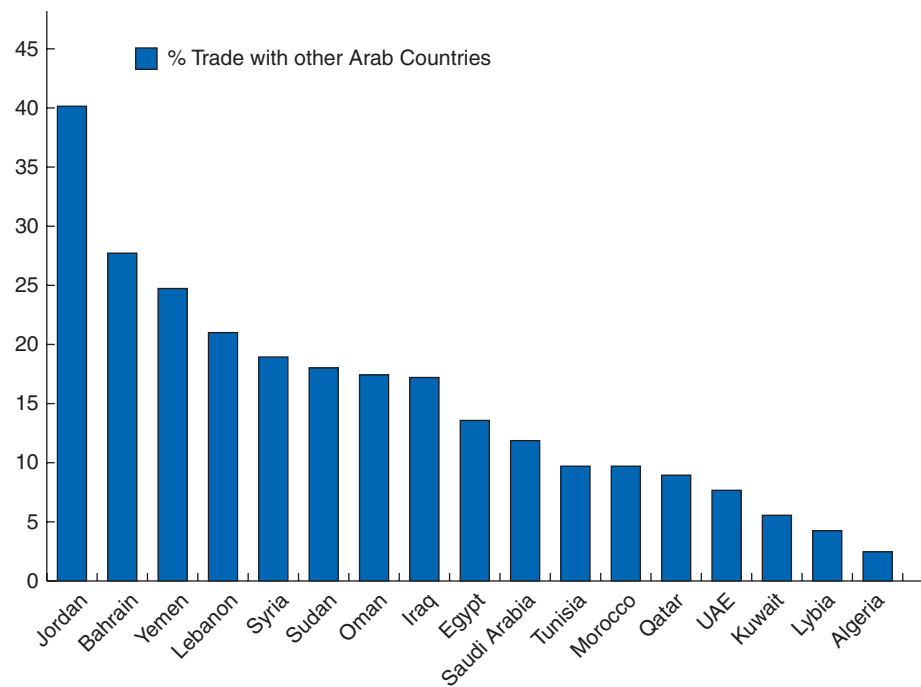
Source: WTO, International Trade Statistics (ITS), 2009.

Figure 14-3

Inter-Arab trade as a percentage of each country's total external trade in 2006

Only four Arab countries - Jordan, Bahrain, Yemen, and Lebanon - depend on inter-Arab trade as more than 20% of their total external trade.

Source: ATFP, Arab Trade Financing Program 2006, www.atfp.org.ae.



Since 2004, Kuwait has emerged as a new player in the telecommunications industry. The country has specialized in mobile communication services and its exports recorded rapid annual average growth of almost 156 percent. According to WTO 2007 statistics, Kuwait ranked fourth, after the EU, U.S., and Canada, as a major telecommunications services exporter worldwide.⁴ In 2006, Kuwait tripled its telecommunications services' exports to US\$3.4bn, and became the leading telecommunications provider in the Middle East. Kuwait connected an estimated 27 million mobile subscribers in neighboring Middle Eastern countries and in Sub-Saharan Africa. That amounts to about 40 percent of the total number of subscribers in the region. Egypt also showed a significant increase in its commercial services exports. The WTO 2007 report shows Egypt among the major worldwide exporters of construction and transportation services. Between 2000 and 2006, the exports of the two sectors were growing rapidly by an estimated annual growth rate of 24 percent and 13 percent, respectively.

Trading among Arab countries has gained momentum in recent years. An estimated 10 percent of total Arab countries' external trade takes place within the greater Arab area. The signing of the GAFTA by 17 Arab countries reflects the fact that Arabs are willing to take the necessary measures towards expanding inter-Arab trade. The importance of trading with other Arab nations is depicted in Figure 14-3, which shows trading with other Arab countries as a percentage of a country's total external trade.

By 2006, Jordan had by far the most dependent economy on Arab trade, with at least 40 percent of its total external trade being with Arab countries. As you saw earlier, exports in general make up more than 50 percent of Jordan's gross domestic product; hence trading with the Arab world makes almost one-fifth of Jordan's income. Following Jordan, Bahrain, Yemen, and Lebanon also rely on Arab trade for more than 20 percent of their total external trade.

The Importance of Arab Trade to the World Economy

In a world context, the Middle East's international trade is a relatively small fraction of the World trade, as shown by Figure 14-4. For the period 1948 to 2008, the percentage of Middle Eastern trade to total international trade ranged from 2 percent to about 6.8 percent. This share, however, grew steadily from 1948, to reach a peak around the

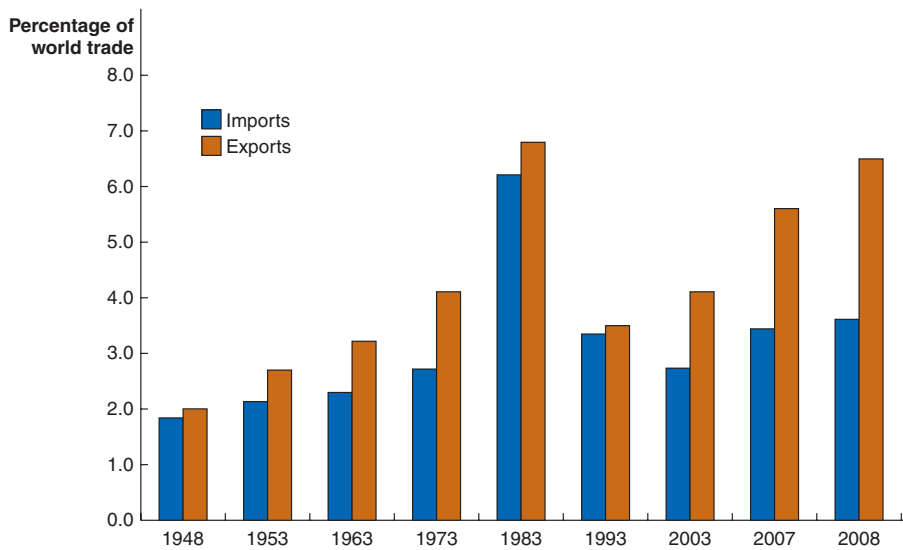


Figure 14-4

Middle East Trade as a percentage of World Trade

During the period from 1948 to 2008, international trade in the Arab world accounted for a relatively small fraction of world trade.

Source: WTO, World Trade Statistics, 2009.

mid-1980s. The increase in oil prices in the 1970s, known as the first and second oil shocks, has contributed to almost doubling that share between 1973 and 1983.

The sharp decline in oil prices around the mid-1980s and in the 1990s, two Gulf wars, growing political tensions in the region, and a world recession in the 80s, have contributed to a sharp decline in production⁵ capacity and exports. However, from 2003 to 2008, the rebound of oil prices and a faster world growth resulted in a recovery in exports and an increase in the share of the Middle East international trade in World trade to almost 6.5 percent by 2008. In addition, efforts to diversify the oil economies to become less dependent on oil, more free trade policies, the abandoning of high protection of local industries, and a growing trade among Arab countries have helped that recovery.

14.2 | Understand the difference between comparative advantage and absolute advantage in international trade.

14.2 LEARNING OBJECTIVE

Comparative Advantage In International Trade

Why have businesses around the world increasingly looked for markets in other countries? Why have consumers increasingly purchased goods and services made in other countries? People trade for one reason: trade makes them better off. Whenever a buyer and seller agree to a sale, they must both believe they are better off; otherwise, there would be no sale. This outcome must hold whether the buyer and seller live in the same city or in different countries. As we will see, governments are more likely to interfere with international trade than they are with domestic trade, but the reasons for the interference are more political than economic.

A Brief Review of Comparative Advantage

In Chapter 2, we discussed the key economic concept of *comparative advantage*. **Comparative advantage** is the ability of an individual, a firm, or a country to produce a good or service at a lower opportunity cost than competitors. Recall that **opportunity cost** is the highest-valued alternative that must be given up to engage in an activity. People, firms, and countries specialize in economic activities in which they have a comparative advantage. In trading, we benefit from the comparative advantage of other people (or firms or countries), and others benefit from our comparative advantage.

Comparative advantage The ability of an individual, a firm, or a country to produce a good or service at a lower opportunity cost than competitors.

Opportunity cost The highest-valued alternative that must be given up to engage in an activity.

A good way to think of comparative advantage is to recall the example in Chapter 2 of you and your neighbor picking fruit. Your neighbor is better at picking both apples and cherries than you are. Why, then, doesn't your neighbor pick both types of fruit? Because the opportunity cost to your neighbor of picking her own apples is very high: she is a particularly skilled cherry picker, and every hour spent picking apples is an hour taken away from picking cherries. You can pick apples at a much lower opportunity cost than your neighbor, so you have a comparative advantage in picking apples. Your neighbor can pick cherries at a much lower opportunity cost than you can, so she has a comparative advantage in picking cherries. Your neighbor is better off specializing in picking cherries, and you are better off specializing in picking apples. You can then trade some of your apples for some of your neighbor's cherries, and both of you will end up with more of each fruit.

Comparative Advantage in International Trade

The principle of comparative advantage can explain why people pursue different occupations. It can also explain why countries produce different goods and services. International trade involves many countries importing and exporting many different goods and services. Countries are better off if they specialize in producing the goods for which they have a comparative advantage. They can then trade for the goods for which other countries have a comparative advantage.

We can illustrate why specializing on the basis of comparative advantage makes countries better off with a simple example involving just two countries and two products. Suppose the United States and Japan produce only cellphones and digital music players, like Apple's iPod. Assume that each country uses only labor to produce each good, and that Japanese and U.S. cellphones and digital music players are exactly the same. Table 14-1 shows how much each country can produce of each good with one hour of labor.

Notice that Japanese workers are more productive than U.S. workers in making both goods. In one hour of work, Japanese workers can make six times as many cellphones and one and a half times as many digital music players as U.S. workers. Japan has an *absolute advantage* over the United States in producing both goods. **Absolute advantage** is the ability to produce more of a good or service than competitors when using the same amount of resources. In this case, Japan can produce more of both goods using the same amount of labor as the United States.

It might seem at first that Japan has nothing to gain from trading with the United States because it has an absolute advantage in producing both goods. However, Japan should specialize and produce only cellphones. It can obtain the digital music players it needs by exporting cellphones to the United States in exchange for digital music players. The reason that Japan benefits from trade is that although it has an *absolute advantage* in the production of both goods, it has a *comparative advantage* only in the production of cellphones. The United States has a comparative advantage in the production of digital music players.

If it seems contrary to common sense that Japan should import digital music players from the United States even though Japan can produce more players per hour of work, think about the opportunity cost to each country of producing each good. If Japan wants to produce more digital music players, it has to switch labor away from

Absolute advantage The ability to produce more of a good or service than competitors when using the same amount of resources.

TABLE 14-1
An Example of Japanese Workers Being More Productive Than American Workers

	OUTPUT PER HOUR OF WORK	
	CELLPHONES	DIGITAL MUSIC PLAYERS
JAPAN	12	6
UNITED STATES	2	4

OPPORTUNITY COSTS		
	CELLPHONES	DIGITAL MUSIC PLAYERS
JAPAN	0.5 digital music player	2 cellphones
UNITED STATES	2 digital music players	0.5 cellphone

The table shows the opportunity cost each country faces in producing cellphones and digital music players. For example, the entry in the first row and second column shows that Japan must give up 2 cellphones for every digital music player it produces.

TABLE 14-2

The Opportunity Costs of Producing Cellphones and Digital Music Players

cellphone production. Every hour of labor switched from producing cellphones to producing digital music players increases digital music player production by 6 and reduces cellphone production by 12. Japan has to give up 12 cellphones for every 6 digital music players it produces. Therefore, the opportunity cost to Japan of producing one more digital music player is $12/6$, or 2 cellphones.

If the United States switches one hour of labor from cellphones to digital music players, production of cellphones falls by 2, and production of digital music players rises by 4. Therefore, the opportunity cost to the United States of producing one more digital music player is $2/4$, or 0.5 cellphones. The United States has a lower opportunity cost of producing digital music players and, therefore, has a comparative advantage in making this product. By similar reasoning, we can see that Japan has a comparative advantage in producing cellphones. Table 14-2 summarizes the opportunity each country faces in producing these goods.

14.3 | Explain how countries gain from international trade.

14.3 LEARNING OBJECTIVE

How Countries Gain from International Trade

Can Japan really gain from producing only cellphones and trading with the United States for digital music players? To see that it can, assume at first that Japan and the United States do not trade with each other. A situation in which a country does not trade with other countries is called **autarky**. Assume that in autarky each country has 1,000 hours of labor available to produce the two goods, and each country produces the quantities of the two goods shown in Table 14-3. Because there is no trade, these quantities also represent consumption of the two goods in each country.

Autarky A situation in which a country does not trade with other countries.

Increasing Consumption through Trade

Suppose now that Japan and the United States begin to trade with each other. The **terms of trade** is the ratio at which a country can trade its exports for imports from other countries. For simplicity, let's assume that the terms of trade end up with Japan and the United States being willing to trade one cellphone for one digital music player.

Terms of trade The ratio at which a country can trade its exports for imports from other countries.

PRODUCTION AND CONSUMPTION		
	CELLPHONES	DIGITAL MUSIC PLAYERS
JAPAN	9,000	1,500
UNITED STATES	1,500	1,000

TABLE 14-3

Production without Trade

Once trade has begun, the United States and Japan can exchange digital music players for cellphones or cellphones for digital music players. For example, if Japan specializes by using all 1,000 available hours of labor to produce cellphones, it will be able to produce 12,000. It then could export 1,500 cellphones to the United States in exchange for 1,500 digital music players. (Remember: We are assuming that the terms of trade are one cellphone for one digital music player.) Japan ends up with 10,500 cellphones and 1,500 digital music players. Compared with the situation before trade, Japan has the same number of digital music players but 1,500 more cellphones. If the United States specializes in producing digital music players, it will be able to produce 4,000. It could then export 1,500 digital music players to Japan in exchange for 1,500 cellphones. The United States ends up with 2,500 digital music players and 1,500 cellphones. Compared with the situation before trade, the United States has the same number of cellphones but 1,500 more digital music players. Trade has allowed both countries to increase the quantities of goods consumed. Table 14-4 summarizes the gains from trade for the United States and Japan.

By trading, Japan and the United States are able to consume more than they could without trade. This outcome is possible because world production of both goods increases after trade. (Remember that, in this example, our ‘world’ consists of just the United States and Japan.)

Why does total production of cellphones and digital music players increase when the United States specializes in producing digital music players and Japan specializes in producing cellphones? A domestic analogy helps to answer this question: if a company shifts production from an old factory to a more efficient modern factory, its output will increase. In effect, the same thing happens in our example. Producing digital music players in Japan and cellphones in the United States is inefficient. Shifting production to the more efficient country—the one with the comparative advantage—increases total production. The key point is this: *Countries gain from specializing in producing goods in which they have a comparative advantage and trading for goods in which other countries have a comparative advantage.*

TABLE 14-4

The Gains from Trade for Japan and the United States

WITHOUT TRADE

Production and Consumption

	CELLPHONES	MP3 PLAYERS
Japan	9,000	1,500
United States	1,500	1,000

WITH TRADE

Production with Trade

	CELLPHONES	MP3 PLAYERS
Japan	12,000	0
United States	0	4,000

With trade, the United States and Japan specialize in the good they have a comparative advantage in producing . . .

Trade

CELLPHONES	MP3 PLAYERS
Export 1,500	Import 1,500
Import 1,500	Export 1,500

. . . and export some of that good in exchange for the good the other country has a comparative advantage in producing.

Consumption with Trade

CELLPHONES	MP3 PLAYERS
10,500	1,500
1,500	2,500

GAINS FROM TRADE

Increased Consumption

Japan	1,500 Cellphones	<div> <div>The increased consumption made possible by trade represents the gains from trade.</div> </div>
United States	1,500 MP3 Players	

Solved Problem 14-3

The Gains from Trade

The first discussion of comparative advantage appears in *On the Principles of Political Economy and Taxation*, a book written by David Ricardo in 1817. The following example illustrates Ricardo's idea of gains from trade, using dairy products and cloth production in Kuwait and Syria. The following table shows the quantity of output per worker, per year, of cloth (measured in sheets) and dairy products (measured in kilos).

OUTPUT PER YEAR OF LABOR		
	CLOTH	DAIRY PRODUCTS
KUWAIT	100	150
SYRIA	90	60

- a. Explain which country has an absolute advantage in the production of each good.
- b. Explain which country has a comparative advantage in the production of each good.
- c. Suppose that Kuwait and Syria currently do not trade with each other. Each country has 1,000 workers, so each has 1,000 years of labor time to use producing cloth and dairy products, and the countries are currently producing the amounts of each good shown in the table:

	CLOTH	DAIRY PRODUCTS
KUWAIT	18,000	123,000
SYRIA	63,000	18,000

- d. Show that Kuwait and Syria can both gain from trade. Assume that the terms of trade are that one sheet of cloth can be traded for one kilo of dairy products.

SOLVING THE PROBLEM:

- Step 1: Review the chapter material.** This problem is about absolute and comparative advantage and the gains from trade, so you may want to review the section “Comparative Advantage in International Trade,” which begins on page 461, and the section “How Countries Gain from International Trade,” which begins on page 461.
- Step 2: Answer question (a) by determining which country has an absolute advantage.** Remember that a country has an absolute advantage over another country when it can produce more of a good using the same resources. The first table in the problem shows that Kuwait can produce more cloth *and* more dairy products with one year's worth of labor than can Syria. Thus, Kuwait has an absolute advantage in the production of both goods and, therefore, Syria does not have an absolute advantage in the production of either good.
- Step 3: Answer question (b) by determining which country has a comparative advantage.** A country has a comparative advantage when it can produce a good at a lower opportunity cost. To produce 100 sheets of cloth, Kuwait must give up 150 kilos of dairy products. Therefore, the opportunity cost to Kuwait of producing one sheet of cloth is $150/100$, or 1.5 kilos of dairy products. Syria has to give up 60 kilos of dairy products to produce 90 sheets of cloth, so its opportunity cost of producing one sheet of cloth is $60/90$, or 0.67 kilos of dairy products. The opportunity costs of producing dairy products can be calculated in the same way. The following table shows the opportunity cost to Kuwait and Syria of producing each good.

OPPORTUNITY COSTS		
	CLOTH	DAIRY PRODUCTS
KUWAIT	1.5 kilos of dairy products	0.67 sheets of cloth
SYRIA	0.67 kilos of dairy products	1.5 sheets of cloth

Kuwait has a comparative advantage in dairy products because its opportunity cost is lower. Syria has a comparative advantage in cloth because its opportunity cost is lower.

Step 4: Answer question (c) by showing that both countries can benefit from trade. By now it should be clear that both countries will be better off if they specialize where they have a comparative advantage and trade for the other product. The following table is very similar to Table 14-4 and shows one example of trade making both countries better off. (To test your understanding, construct another example.)

WITHOUT TRADE						
PRODUCTION AND CONSUMPTION						
	CLOTH	DAIRY PRODUCTS				
KUWAIT	18,000	123,000				
SYRIA	63,000	18,000				

WITH TRADE						
	PRODUCTION WITH TRADE		TRADE		CONSUMPTION WITH TRADE	
	CLOTH	DAIRY PRODUCTS	CLOTH	DAIRY PRODUCTS	CLOTH	DAIRY PRODUCTS
KUWAIT	0	150,000	Import 18,000	Export 18,000	18,000	132,000
SYRIA	90,000	0	Export 18,000	Import 18,000	72,000	18,000

GAINS FROM TRADE	
INCREASED CONSUMPTION	
KUWAIT	9,000 dairy products
SYRIA	9,000 cloth

YOUR TURN: For more practice, do related problems 3.4 and 3.5 on page 486 at the end of this chapter.

» End Solved Problem 14-3

Why Don't We See Complete Specialization?

In our example of two countries producing only two products, each country specializes in producing one of the goods. In the real world, many goods and services are produced in more than one country. For example, the United States and Japan both produce automobiles. We do not see complete specialization in the real world for three main reasons:

- **Not all goods and services are traded internationally.** Even if, for example, Japan had a comparative advantage in the production of medical services, it would be difficult for Japan to specialize in producing medical services and then export them. There is no easy way for U.S. patients who need operations to receive them from surgeons in Japan.
- **Production of most goods involves increasing opportunity costs.** Recall from Chapter 2 that production of most goods involves increasing opportunity costs. As a result, when the United States devotes more workers to producing digital music players, the opportunity cost of producing more digital music players will increase. At some point, the opportunity cost of producing digital music players in the United States may rise to the level of the opportunity cost of producing digital music players in Japan. When that happens, international trade will no longer push the United States further toward complete specialization. The same will be true of Japan: increasing opportunity cost will cause Japan to stop short of complete specialization in producing cellphones.

- **Tastes for products differ.** Most products are *differentiated*. Cellphones, digital music players, cars, and televisions—to name just a few products—come with a wide variety of features. When buying automobiles, some people look for reliability and good gasoline mileage, others look for room to carry seven passengers, and still others want styling and high performance. So, some car buyers prefer Toyota Prius hybrids, some prefer Chevy Suburbans, and others prefer BMWs. As a result, Japan, the United States, and Germany may each have a comparative advantage in producing different types of automobiles.

Does Anyone Lose as a Result of International Trade?

In our cellphone and digital music player example, consumption increases in both the United States and Japan as a result of trade. Everyone gains, and no one loses. Or do they? In our example, we referred repeatedly to “Japan” or the “United States” producing cellphones or digital music players. But countries do not produce goods—firms do. In a world without trade, there would be cellphone and digital music player firms in both Japan and the United States. In a world with trade, there would only be Japanese cellphone firms and U.S. digital music player firms. Japanese digital music player firms and U.S. cellphone firms would close. Overall, total employment will not change and production will increase as a result of trade. Nevertheless, the owners of Japanese digital music player firms, the owners of U.S. cellphone firms, and the people who work for them are worse off as a result of trade. The losers from trade are likely to do their best to convince the Japanese and U.S. governments to interfere with trade by barring imports of the competing products from the other country or by imposing high tariffs on them.

Making the Connection

The GCC Common Market: Are There Potential Gains? Who Wins and Who Loses?

In January 2008, the GCC countries took a major step towards their full regional economic integration when they launched a common market. The common market allows free labor and capital movements among the GCC states. GCC nationals will be able to pursue all economic, investment, and services activities in any of the member countries. The launching of the common market will also encourage harmony among member countries’ laws and regulations.

According to the Doha Declaration of 2007, the common market would provide a number of advantages for its member countries, namely: (i) allowing GCC nationals to take full advantage of employment and investment opportunities available in the larger GCC economy, (ii) encouraging foreign and inter-GCC investments, (iii) maximizing the economic benefits resulting from large-scale economies, (iv) enhancing efficiency and encouraging the best use of resources, and (v) improving the GCC negotiating power with major economic blocs.

Despite these great expectations, some argue that the impact of the GCC common market would be modest due to the similar economic structure of the member countries and the relatively small volume of trade among them. The common market, however, is expected to bring some economic gains to the GCC member countries. These gains may not necessarily be evenly distributed; some countries may benefit more than others. Some countries may even end up losing.

Examining the GCC countries’ economies, one can see that Saudi Arabia is the largest in terms of population and the size of its economy. Saudi nationals account for almost two-thirds of the total GCC population and its output is about half the GCC total production. Bahrain, on the other hand, is considered the smallest

(Continued)

economy. Qatar, the UAE, and Kuwait are the richest among GCC countries since they enjoy the largest per capita income; Saudi and Oman are at the other end of the scale. The UAE and Bahrain have the most diversified economies, with oil accounting for only one-third and a quarter of their respective GDPs. On the other side of the spectrum, Qatar and Saudi are the least diversified.

These differences will determine to a large extent who stands to win and who stands to lose. If national labor is allowed to move freely, Saudi and Oman would be the largest exporters of national labor. Labor will move to countries with the highest income per person. Indeed, a study by the Public Pension Agency in Saudi Arabia showed that the nationals of Saudi are, by a large number, those who accept the most jobs in other GCC countries, and that their preferred destination is Kuwait. In terms of capital flows, the direction of the flow will depend on the differences in business environment among the GCC economies and on the size of non-oil activities in a particular country. According to the World Bank's 2010 *Ease of Doing Business* report, Saudi Arabia followed by Bahrain and the UAE provide the most competitive business environment. Oman came at the end, behind Qatar and Kuwait. Oman and Kuwait are known to have more government controls, more regulations, and less competitive markets which could drive capital out. Oman also is the only GCC country that levies a relatively high corporate income tax rate of 15 percent on national corporations. On the other end, Qatar, Bahrain, and the UAE have no corporate taxes at all. The retail sector and local chain stores are also expected to seek expansion beyond the borders of their home countries. The main driving force would be the market size. Therefore, relatively larger markets such as Saudi and UAE are considered a potential target for retail business extension, enhancing more competition in the host countries.

In summary, the GCC common market may have few gains in terms of reducing national labor unemployment, attracting foreign capital, or improving the negotiating power of the GCC bloc in the global economy. Yet, some countries would end up net gainers in terms of exploiting better investment and employment opportunities. At the top of the list of expected gainers is Saudi Arabia as a net exporter of national labor and importer of national investments, especially in the retail sector. Oman, on the other hand, may be found at the bottom of the list, with its less diversified economy, less competitive markets, more regulations and government controls, and higher taxes. Both loose labor and capital may migrate, looking for better investment opportunities and a more business-friendly environment in other GCC countries, leaving Oman the ultimate loser.

Source: GCC Research Note: National Bank of Kuwait Economic Research, Kuwait, October 15, 2008.

YOUR TURN: Test your understanding by doing related problem 3.12 on page 486 at the end of this chapter.

Where Does Comparative Advantage Come From?

Among the main sources of comparative advantage are the following:

- **Climate and natural resources.** This source of comparative advantage is the most obvious. Because of geology, Saudi Arabia has a comparative advantage in the production of oil. Because of climate and soil conditions, Costa Rica has a comparative advantage in the production of bananas, and the United States has a comparative advantage in the production of wheat.
- **Relative abundance of labor and capital.** Some countries, such as the United States, have many highly skilled workers and a great deal of machinery. Other countries, such as China, have many unskilled workers and relatively little machinery. As a result, the United States has a comparative advantage in the production of goods that require highly skilled workers or sophisticated machinery to manufacture,

such as aircraft, semiconductors, and computer software. China has a comparative advantage in the production of goods that require unskilled workers and small amounts of simple machinery, such as children's toys.

- **Technology.** Broadly defined, *technology* is the process firms use to turn inputs into goods and services. At any given time, firms in different countries do not all have access to the same technologies. In part, this difference is the result of past investments countries have made in supporting higher education or in providing support for research and development. Some countries are strong in *product technologies*, which involve the ability to develop new products. For example, firms in the United States have pioneered the development of such products as televisions, digital computers, airliners, and many prescription drugs. Other countries are strong in *process technologies*, which involve the ability to improve the processes used to make existing products. For example, firms in Japan, such as Toyota and Nissan, have succeeded by greatly improving the processes for designing and manufacturing automobiles.
- **External economies.** It is difficult to explain the location of some industries on the basis of climate, natural resources, the relative abundance of labor and capital, or technology. For example, why does Southern California have a comparative advantage in making movies or Switzerland in making watches or New York in providing financial services? The answer is that once an industry becomes established in an area, firms that locate in that area gain advantages over firms located elsewhere. The advantages include the availability of skilled workers, the opportunity to interact with other firms in the same industry, and being close to suppliers. These advantages result in lower costs to firms located in the area. Because these lower costs result from increases in the size of the industry in an area, economists refer to them as **external economies**.

External economies Reductions in a firm's costs that result from an increase in the size of an industry.

Comparative Advantage Over Time: The Rise and Fall—and Rise—of the U.S. Consumer Electronics Industry

A country may develop a comparative advantage in the production of a good, and then, as time passes and circumstances change, the country may lose its comparative advantage in producing that good and develop a comparative advantage in producing other goods. For several decades, the United States had a comparative advantage in the production of consumer electronic goods, such as televisions, radios, and stereos. The comparative advantage of the United States in these products was based on having developed most of the underlying technology, having the most modern factories, and having a skilled and experienced workforce. Gradually, however, other countries, particularly Japan, gained access to the technology, built modern factories, and developed skilled workforces. As mentioned earlier, Japanese firms have excelled in process technologies, which involve the ability to improve the processes used to make existing products. By the 1970s and 1980s, Japanese firms were able to produce many consumer electronic goods more cheaply and with higher quality than could U.S. firms. Japanese firms Sony, Panasonic, and Pioneer replaced U.S. firms Magnavox, Zenith, and RCA as world leaders in consumer electronics.

By 2007, however, as the technology underlying consumer electronics evolved, comparative advantage had shifted again, and several U.S. firms surged ahead of their Japanese competitors. For example, Apple Computer had developed the iPod and iPhone; Linksys, a division of Cisco Systems, took the lead in home wireless networking technology; and Kodak developed digital cameras with EasyShare software that made it easy to organize, enhance, and share digital pictures. As pictures and music converted to digital data, process technologies became less important than the ability to design and develop new products. These new consumer electronics products required skills similar to those in computer design and software writing, where the United States had long maintained a comparative advantage.

Once a country has lost its comparative advantage in producing a good, its income will be higher and its economy will be more efficient if it switches from producing the good to importing it, as the United States did when it switched from producing

televisions to importing them. As we will see in the next section, however, there is often political pressure on governments to attempt to preserve industries that have lost their comparative advantage.

14.4 LEARNING OBJECTIVE

14.4 | Analyze the economic effects of government policies that restrict international trade.

Government Policies That Restrict International Trade

Free trade Trade between countries that is without government restrictions.

Free trade, or trade between countries that is without government restrictions, makes consumers better off. We can expand on this idea by using the concepts of consumer surplus and producer surplus from Chapter 4. Figure 14-5 shows the market for average-sized economic cars in Egypt, assuming autarky, where Egypt does not trade with other countries. The equilibrium price of a car is US\$17,000 per car, and the equilibrium quantity is one million cars per year. The blue area represents consumer surplus, and the red area represents producer surplus.

Now suppose that Egypt begins importing cars from Korea and other countries that produce lower-priced average-sized cars, and that a car would sell for US\$13,000 in these countries. Because the world market for average-sized cars is large, we will assume that Egypt can buy as many cars as it wants without causing the *world price* of US\$13,000 per car to rise. Therefore, once imports of cars are permitted into Egypt, Egyptian firms will not be able to sell cars at prices higher than the world price of US\$13,000, and Egypt's price will become equal to the world price.

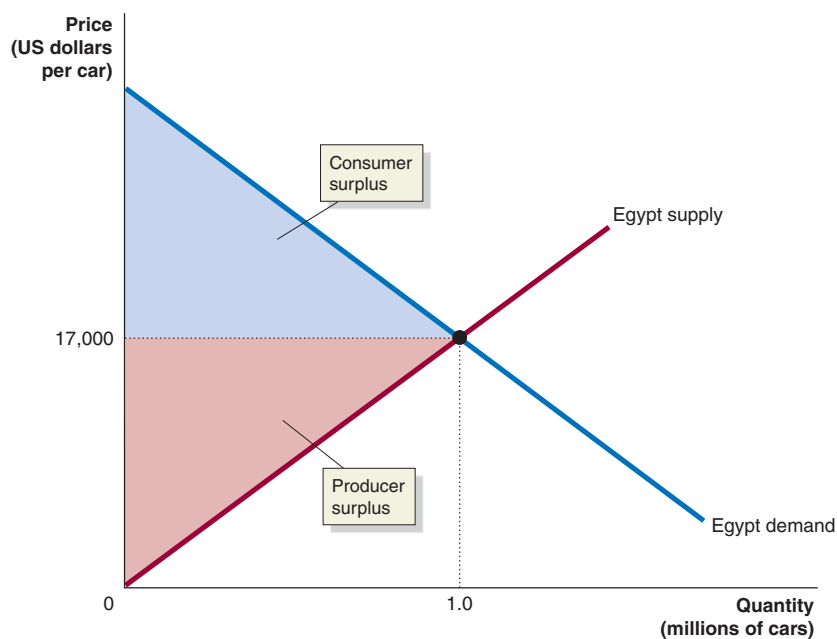
Figure 14-6 shows the result of allowing imports of average-sized cars into Egypt. With the price lowered from US\$17,000 to US\$13,000, Egyptian consumers increase their purchases from one million cars to 1.5 million cars. Equilibrium moves from point *F* to point *G*. In the new equilibrium, Egyptian producers have reduced the quantity of cars they supply from one million cars to half a million cars. Imports will equal one million cars, which is the difference between Egypt's consumption and Egypt's production.

Under autarky, consumer surplus would be area *A* in Figure 8-5. With imports, the reduction in price increases consumer surplus, so it is now equal to the sum of areas

Figure 14-5

The Egyptian Market for Automobiles under Autarky

This figure shows the market for average-sized economic cars in Egypt, assuming autarky, where Egypt does not trade with other countries. The equilibrium price of a car is US\$17,000 per car, and the equilibrium quantity is one million cars per year. The blue area represents consumer surplus, and the red area represents producer surplus.



	Under Autarky	With Imports
Consumer Surplus	A	A + B + C + D
Producer Surplus	B + E	E
Economic Surplus	A + B + E	A + B + C + D + E

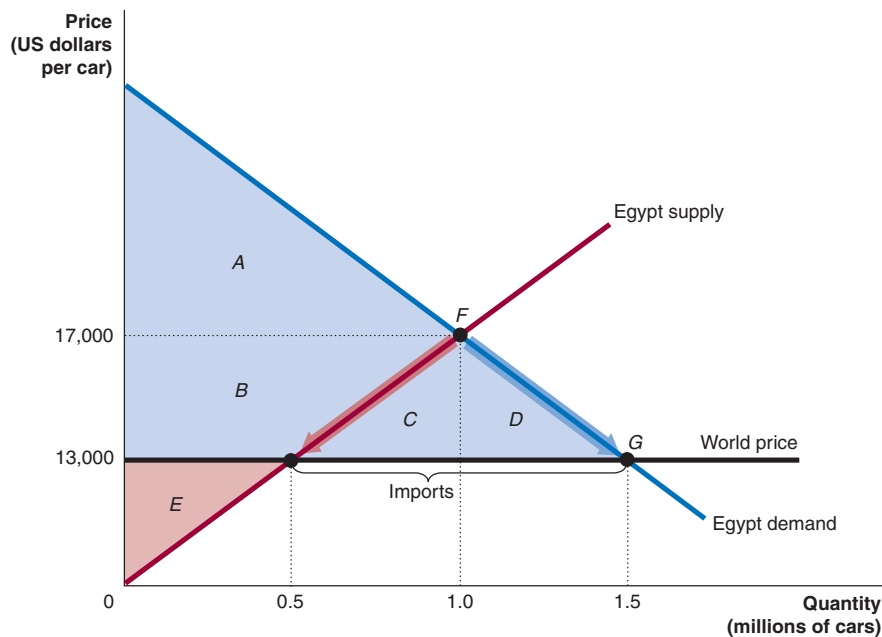


Figure 14-6

The Effect of Imports on Egypt's Automobile Market

When imports of cars are allowed into Egypt, the price of an average-size car falls from US\$17,000 to US\$13,000. Egyptian consumers increase their purchases from one million cars to 1.5 million cars. Equilibrium moves from point F to point G. In the new equilibrium, Egyptian producers have reduced the quantity of cars they supply from one million cars to half a million cars and imports will equal one million cars. Now consumer surplus will be the sum of areas A, B, C, and D, while the producer surplus will be decreased to the area E.

A, B, C, and D. Although the lower price increases consumer surplus, it reduces producer surplus. Under autarky, producer surplus was equal to the sum of the areas B and E. With imports, producer surplus is equal to only area E. Recall that economic surplus equals the sum of consumer surplus and producer surplus. Moving from autarky to allowing imports increases economic surplus in Egypt by an amount equal to the sum of areas C and D.

We can conclude that international trade helps consumers but hurts firms that are less efficient than foreign competitors. As a result, these firms and their workers are often strong supporters of government policies that restrict trade. These policies usually take one of two forms:

- Tariffs
- Quotas and voluntary export restraints.

Tariffs

The most common interferences with trade are *tariffs*, which are taxes imposed by a government on goods imported into a country. Like any other tax, a tariff increases the cost of selling a good. Figure 14-7 shows the impact of a tariff of US\$3,000 per car. The tariff raises the price of cars in Egypt from the world price of US\$13,000 per car to US\$16,000 per car. At this higher price, Egypt's car producers increase the quantity they supply from half a million car to three quarters of a million cars. Egyptian consumers, though, cut back their purchases of cars from 1.5 million to 1.25 million cars. Imports decline from one million cars (1.5 million – 0.5 million) to half a million cars (1.25 million – 0.75 million). Equilibrium moves from point G to point H.

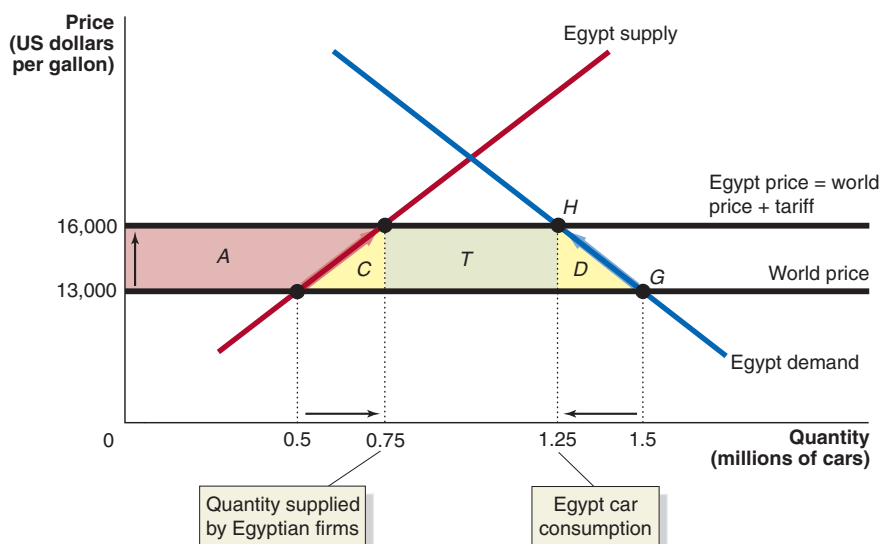
By raising the price of cars from US\$13,000 to US\$16,000, the tariff reduces consumer surplus by the sum of areas A, T, C, and D. Area A is the increase in producer surplus from the higher price. The government collects tariff revenue equal to the tariff of US\$3,000 per car multiplied by the half million cars imported. Area T represents the government's tariff revenue. Areas C and D represent losses to Egyptian consumers

Figure 14-7

The Effects of a Tariff on Cars

Without a tariff on cars, Egyptian producers will sell 0.5 millions of cars, Egyptian consumers will purchase 1.5 million cars, and imports will be 1 million cars. The car price in Egypt will equal the world price of US\$13,000 per car. The tariff raises the price of cars in Egypt from the world price of US\$13,000 per car to US\$16,000 per car. Egypt's car producers increase the quantity they supply from half a million car to three quarters of a million cars. Egyptian consumers cut back their purchases of cars from 1.5 million to 1.25 million cars. Imports decline from one million cars to half a million cars. Equilibrium moves from point G to point H. The tariff reduces consumer surplus by the sum of areas A, T, C, and D. Area A is the increase in producer surplus from the higher price. Area T represents the government's tariff revenue. Areas C and D represent deadweight loss.

Loss of Consumer Surplus	=	Increase in Producer Surplus	+	Government Tariff Revenue	+	Deadweight Loss
$A + C + T + D$		A		T		$C + D$



that are not captured by anyone. They are deadweight loss that represents the decline in economic efficiency resulting from the car tariff. Area C shows the effect on Egyptian consumers of being forced to buy from Egyptian producers who are less efficient than foreign producers, and area D shows the effect of Egyptian consumers buying fewer cars than they would have at the world price. As a result of the tariff, economic surplus has been reduced by the sum of areas C and D. Recall from Chapter 4 that deadweight loss represents a loss of economic efficiency.

We can conclude that the tariff succeeds in helping Egypt's car producers but hurts Egyptian consumers and the efficiency of the Egyptian economy.

Quotas and Voluntary Export Restraints

Quota A numeric limit imposed by a government on the quantity of a good that can be imported into the country.

Voluntary export restraint (VER) An agreement negotiated between two countries that places a numeric limit on the quantity of a good that can be imported by one country from the other country.

A **quota** is a numeric limit on the quantity of a good that can be imported, and it has an effect similar to a tariff. A quota is imposed by the government of the importing country. A **voluntary export restraint (VER)** is an agreement negotiated between two countries that place a numeric limit on the quantity of a good that can be imported by one country from the other country. In the early 1980s, the United States and Japan negotiated a VER that limited the quantity of automobiles the United States would import from Japan. The Japanese government agreed to the VER primarily because it was afraid that if it did not, the United States would impose a tariff or quota on imports of Japanese automobiles. Quotas and VERs have similar economic effects.

The main purpose of most tariffs and quotas is to reduce the foreign competition that domestic firms face. Worth noting, the quota system is rarely used today in most Arab countries as part of the commitment to gradually reduce barriers to trade according to the WTO trade agreements. Let's assume a hypothetical quota that Egypt has imposed on its imports of sugar to protect domestic sugar producers. As shown in Figure 14-8, the effect of a quota is very similar to the effect of a tariff. By limiting imports, a quota forces the domestic price of a good above the world price. In this case, the sugar quota limits sugar imports to 1 million tons per year. (shown by the bracket in Figure 14-8), forcing the domestic price of sugar up to US\$700 per ton, or US\$100 higher than the world price. The domestic price is above the world price because the quota keeps foreign sugar producers from selling the additional sugar in the Egyptian market, which would drive the price down to the world price.

Loss of Consumer Surplus	=	Gain by U.S. Sugar Producers	+	Gain to Foreign Sugar Producers	+	Deadweight Loss
$A + C + B + D$		A		B		$C + D$
US \$2.24 billion	=	US \$1.20 billion	+	US \$0.35 billion	+	US \$0.69 billion

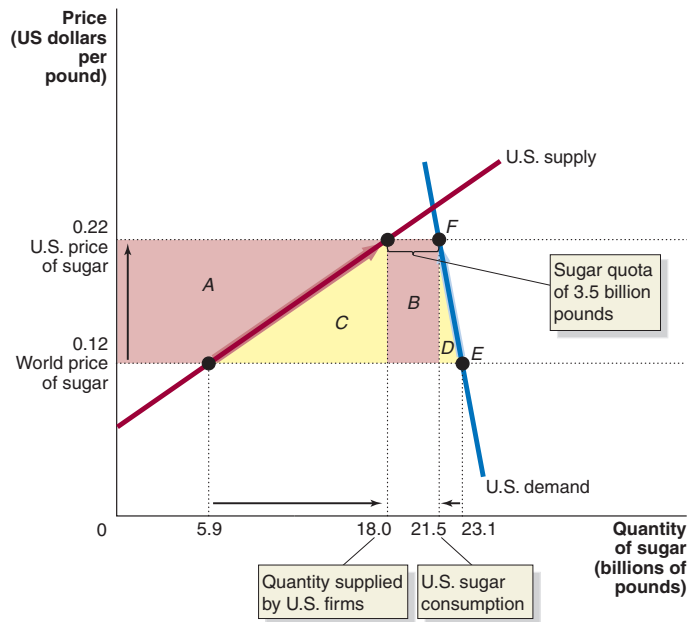


Figure 14-8

The Economic Effect of the Sugar Quota

The sugar quota limits sugar imports to 1 million tons per year forcing the domestic price of sugar up to US\$700 per ton. Egyptian producers increase the quantity of sugar they supply from 2 million tons to 4 million tons, and Egyptian consumers decrease their purchases of sugar from 6 million tons to 5 million tons. Equilibrium moves from point *E* to point *F*. The sugar reduces consumer surplus by the area $A + B + C + D$. Without a sugar quota, producer surplus would be equal to the area below the US\$600 price line and above the supply curve. The higher domestic price resulting from the sugar quota increases the producer surplus of Egyptian sugar producers by an amount equal to area *A*.

At a price of US\$700 per ton, Egyptian producers increased the quantity of sugar they supply from 2 million tons to 4 million tons, and the Egyptian consumers cut back their purchases of sugar from 6 million tons to 5 million tons. Equilibrium moves from point *E* to point *F*.

Measuring the Economic Effect of the Sugar Quota

Once again, we can use the concepts of consumer surplus, producer surplus, and deadweight loss to measure the economic impact of the sugar quota. Without a sugar quota, the world price of US\$600 per ton would also be the domestic price. In Figure 14-8, consumer surplus equals the area above the US\$600 price line and below the demand curve. The sugar quota causes the domestic price to rise to US\$700 a ton and reduces consumer surplus by the area $A + B + C + D$. Without a sugar quota, producer surplus received by Egyptian sugar producers would be equal to the area below the US\$600 price line and above the supply curve. The higher domestic price resulting from the sugar quota increases the producer surplus of Egyptian sugar producers by an amount equal to area *A*.

A foreign producer must have a license from the Egyptian government to import sugar under the quota system. Therefore, a foreign sugar producer that is lucky enough to have an import license also benefits from the quota because it is able to sell sugar on the Egyptian market at US\$700 per ton instead of US\$600 per ton. The gain to foreign sugar producers is area *B*. Areas *A* and *B* represent transfers from Egyptian consumers of sugar to Egyptian and foreign producers of sugar. Areas *C* and *D* represent losses to Egyptian consumers that are not captured by anyone. They are deadweight losses and represent the decline in economic efficiency resulting from the sugar quota. Area *C* shows the effect of Egyptian consumers being forced to buy from Egyptian producers that are less efficient than foreign producers, and area *D*

shows the effect of Egyptian consumers buying less sugar than they would have at the world price.

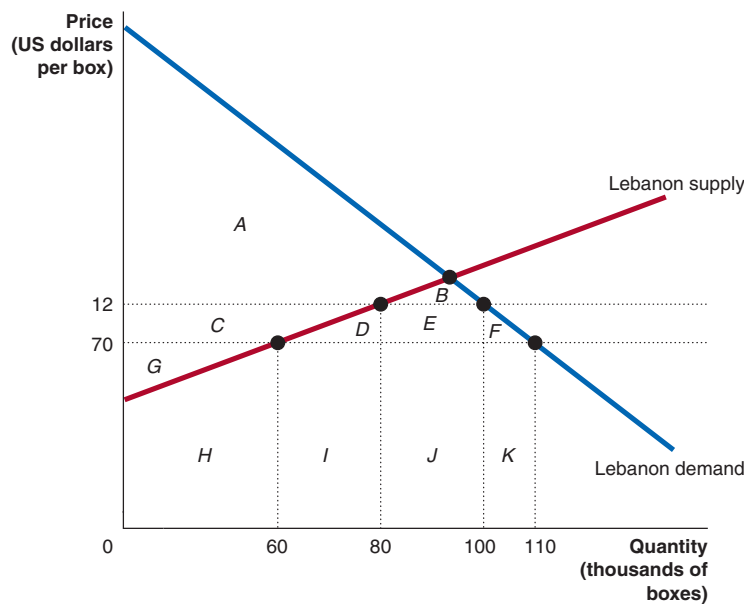
Figure 14-8 provides enough information to calculate the dollar value of each of the four areas. The results of these calculations are shown in the table in the figure. The total loss to consumers from the sugar quota was US\$550 million. About 53 percent of the loss to consumers, or US\$291.5 million, was gained by Egyptian sugar producers as increased producer surplus. About 16 percent, or US\$88 million, was gained by foreign sugar producers as increased producer surplus, and about 31 percent, or US\$169.5 million, was a deadweight loss to the Egyptian economy. Eliminating the sugar quota would result in the loss of some jobs in the Egyptian sugar industry. On the other hand, eliminating the quota would result in new jobs being created, particularly in the candy industry. Egyptian candy companies will benefit from the decline in the sugar's price.

Solved Problem

14-4

Measuring the Economic Effect of a Quota

Suppose that currently Lebanon both produces and imports apples. The Lebanese government then decides to restrict international trade in apples by imposing a quota that allows imports of only 20,000 boxes of apples into Lebanon each year. The figure shows the results of imposing the quota.



Fill in the following table, using the prices, quantities, and letters in the figure:

	WITHOUT QUOTA	WITH QUOTA
World price of apples		
Price of apples in Lebanon		
Quantity supplied by Lebanese firms		
Quantity demanded by Lebanese consumers		
Quantity imported		
Area of consumer surplus		
Area of producer surplus		
Area of deadweight loss		

SOLVING THE PROBLEM:

Step 1: Review the chapter material. This problem is about measuring the economic effects of a quota, so you may want to review the section “Quotas and Voluntary Export Restraints,” which begins on page 471, and “Measuring the Economic Effect of the Sugar Quota,” which begins on page 471.

Step 2: Fill in the table. After studying Figure 14-8, you should be able to fill in the table. Remember that consumer surplus is the area below the demand curve and above the market price.

	WITHOUT QUOTA IN US\$	WITH QUOTA IN US\$
World price of apples	10	10
Lebanese price of apples	10	12
Quantity supplied by Lebanese firms	60,000 boxes	80,000 boxes
Quantity demanded by Lebanese consumers	110,000 boxes	100,000 boxes
Quantity imported	50,000 boxes	20,000 boxes
Area of consumer surplus	$A + B + C + D + E + F$	$A + B$
Area of domestic producer surplus	G	$G + C$
Area of deadweight loss	No deadweight loss	$D + F$

YOUR TURN: For more practice, do related problem 11.1 on page 487 at the end of this chapter.

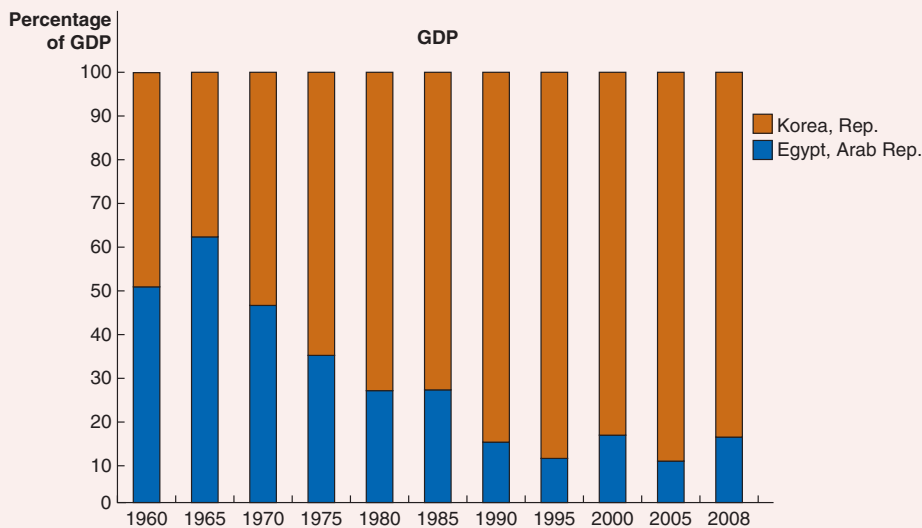
» End Solved Problem 14-4

Making the Connection

Why the Egyptian Economy Is Compared with the South Korean Economy

Why is the Egyptian standard of living not as high as South Koreans? What went wrong? Whenever you discuss economic issues with ordinary Egyptians, you will find many of them hotly debating these questions. The main reason for this comparison goes back to the 1960s when both countries began setting their economic plans, with the common goal of achieving a high economic growth rate. What really surprises Egyptians these days is that Egypt and South Korea were almost at the same stage of development in the 1960s. In fact, economic indicators show that

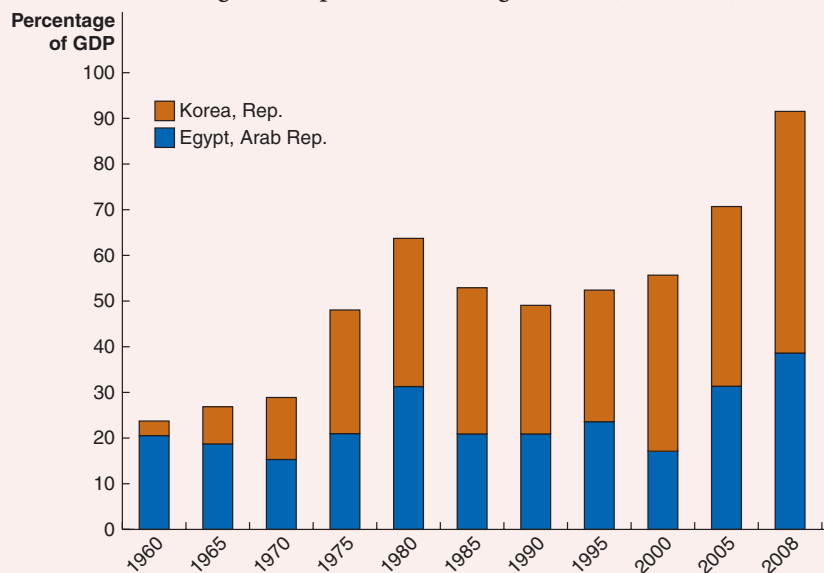
Figure 1: GDP in Egypt and South Korea (1960–2008)



Source: World Bank: World Development Indicators (WDI).

(Continued)

Figure 2: Exports as Percentage of GDP (1960–2008)



Source: World Bank: World Development Indicators (WDI).

the Egyptian economy is performing better than the South Korean economy, specifically, in terms of exports and aggregate output. Figures 1 and 2 show this fact.

In 1960, Egypt's gross domestic product (GDP) was US\$4,144 billion compared with US\$3,891 billion for South Korea. In addition, the percentage of exports to GDP in Egypt was 19.5, while it was only 3.1 for South Korea. Looking at the same indicators for 2008, we see an increase in Egyptian GDP to US\$162,818 billion, while the South Korean GDP jumped to US\$929,120 billion (more than five times the Egyptian GDP). The percentage of exports to GDP rose to 52.8 in South Korea compared with 37.6 in Egypt.

One explanation behind this dramatic difference in economic performance in both countries during the second half of the twentieth century is based on the trade policy adopted by each government in the 1960s. As pointed out by Paul Rivlin (2009), South Korea, and other East Asian Economies, started their economic development plan by implementing a *selective* import substitution policy that let private firms learn and achieve economies of scale (the so-called infant industry protection argument), followed by a policy of export incentives. It was obvious that the South Korean government believed that boosting exports would not be successful without reducing or eliminating import controls. This simply means that South Korea started to be integrated in the world economy in the 1960s. It is worth saying that the South Korean government used to penalize those firms that received government assistance if they failed to meet their export quota. The story was different in Egypt as the government played a central role in the economy by following the Soviet model of nationalizing private properties, and applying a policy of almost *complete* import substitution. This prevented the Egyptian economy from being integrated into the world economy and, thus, it lost the possible gains of open trading. During this socialist phase in the 1960s, the private sector was either eliminated or seriously weakened, so that it was unable to fill the economic gap left by the gradual withdrawal of the public sector, in the 1990s and the first decade of the twenty-first century, from several economic activities.

Source: www.worldbank.org; Paul Rivlin, *Arab Economies in the Twenty-First Century*, Cambridge, MA: Cambridge University Press, 2009.

Gains from Unilateral Elimination of Tariffs and Quotas

Some argue that eliminating tariffs and quotas would help the domestic economy only if other countries eliminated their tariffs and quotas in exchange. It is easier to gain political support for reducing or eliminating tariffs or quotas if it is done as part of an agreement with other

countries that involves their eliminating some of their tariffs or quotas. But it is important to note that, as the example of the sugar quota shows, *the Egyptian economy would gain from the elimination of tariffs and quotas even if other countries do not reduce their tariffs and quotas.*

Making the Connection

Qualified Industrial Zones and the Middle East Free Trade Area

The United States has started to apply a new economic strategy that aims at integrating Arab economies into the world economy through a number of bilateral free trade agreements (FTA) between the U.S. and individual Arab countries, on one hand, and multilateral trade agreements between the U.S. and some Middle East economies, on the other hand. The later strategy began in 1996 when the U.S. Congress amended the Free Trade Area Implementation Act of 1975 with the goal of promoting peace, development, and trade in the Middle East—particularly in Egypt, Jordan, and Palestine—via the creation of Qualified Industrial Zones (QIZs) within those countries. QIZs are identified as designated geographic areas where companies located inside these zones enjoy free access status to the U.S. market, provided that they satisfy the agreed Israeli component (a minimum of 7 percent to 8 percent of the product price paid by the U.S. buyer in the U.S.–Jordan agreement) as per the pre-defined rules of origin. As a result of establishing QIZs in Jordan in 1997, Jordanian exports to the U.S. increased from US\$2.4 million in 1998, to US\$1.33 billion in 2007, of which 70 percent came from QIZs⁶.

In the same trend, the U.S. and Egypt signed a QIZ agreement in 2004. As indicated by Paul Rivlin (2009), QIZs in Egypt created 15,000 jobs, and Egyptian apparel exports to the U.S. rose by 5.3 percent in 2005 (from US\$442 million in 2004, to US\$444 million in 2005). This small percentage increase may seem disappointing; however, for some Egyptian government officials, it is a success, as it was expected that—without the QIZ agreement—the Egyptian garment exports to the U.S. would have decreased in 2005 under pressure from Chinese competition. Egyptian exports of textiles and textile products rose by 31 percent in 2006 (80 percent of QIZ companies produce textiles and clothing articles since Egypt has a comparative advantage in such industry). QIZs currently account for 33 percent of Egypt's total exports. In addition, the Egyptian government estimates that over the next few years, QIZ will create 300,000 new jobs⁷.

On the other hand, in 2003, the U.S. President, George W. Bush, created a plan aimed at enhancing the international trade with the Arab countries: first, by negotiating comprehensive free trade agreements with countries in the region bilaterally, and then, combining these into a single arrangement between the United States and the Middle East region as a whole. The strategy is known as the Middle East Free Trade Area (MEFTA). The U.S. administration began to implement this strategy by negotiating free trade agreements with Morocco, Oman, Bahrain, and the UAE. Several studies estimated the benefits of MEFTA on Arab economies and found that the economic impact is fairly small and that, in most Arab countries, imports from the U.S. increased by more than exports to the U.S. The main reason behind this result is that, in 2003, many Arab countries used to levy fairly high tariffs on U.S. exports, while the U.S. generally charges small duties on imports from Arab countries. So, when all tariffs between the U.S. and Arab countries are eliminated under the MEFTA, imports from the U.S. are expected to realize a significant increase relative to the increase in exports to the U.S. The estimated increase in welfare due to the MEFTA is far less than 1 percent of Arab countries' GDP⁸.

Source 6: Paul Rivlin, (2009), *Arab Economies in the Twenty-First Century*, Cambridge: Cambridge University Press.

Source 7: The American Chamber of Commerce in Egypt, www.amcham.org.eg; and the Egyptian Ministry of Trade and industry, www.qizegypt.gov.eg.

Source 8: "The Arab World Competitiveness Review 2007," The World Economics Forum, www.weforum.org/en/initiatives/gcp/Arab%20World%20Competitiveness%20Report/index.htm.

Other Barriers to Trade

In addition to tariffs and quotas, governments sometimes erect other barriers to trade. For example, all governments require that imports meet certain health and safety requirements. Sometimes, however, governments use these requirements to shield domestic firms from foreign competition. This can be true when a government imposes stricter health and safety requirements on imported goods than on goods produced by domestic firms.

Many governments also restrict imports of certain products on national security grounds. The argument is that in time of war, a country should not be dependent on imports of critical war materials. Once again, these restrictions are sometimes used more to protect domestic companies from competition than to protect national security.

14.5 LEARNING OBJECTIVE

14.5 | Evaluate the arguments over trade policy and globalization.

The Argument over Trade Policies and Globalization

The argument over whether governments should regulate international trade is very old. By the end of World War II in 1945, government officials in the United States and Europe were looking for a way to reduce tariffs and revive international trade. To help achieve this goal, they set up the General Agreement on Tariffs and Trade (GATT) in 1948. Countries that joined GATT agreed not to impose new tariffs or import quotas. In addition, a series of *multilateral negotiations*, called *trade rounds*, took place, in which countries agreed to reduce tariffs from the very high levels of the 1930s.

In the 1940s, most international trade was in goods, and the GATT agreement covered only goods. In the following decades, trade in services and in products incorporating *intellectual property*, such as software programs and movies, grew in importance. Many GATT members pressed for a new agreement that would cover services and intellectual property, as well as goods. A new agreement was negotiated, and in January 1995, GATT was replaced by the **World Trade Organization (WTO)**, headquartered in Geneva, Switzerland. More than 130 countries are currently members of the WTO.

World Trade Organization (WTO) An international organization that oversees international trade agreements.

Why Do Some People Oppose the World Trade Organization?

During the years immediately after World War II, many low-income, or developing, countries erected high tariffs and restricted investment by foreign companies. When these policies failed to produce much economic growth, many of these countries decided during the 1980s to become more open to foreign trade and investment. This process became known as **globalization**. Most developing countries joined the WTO and began to follow its policies.

During the 1990s, opposition to globalization began to increase. In 1999, this opposition took a violent turn at a meeting of the WTO in Seattle, Washington. The purpose of the meeting was to plan a new round of negotiations aimed at further reductions in trade barriers. A large number of protesters assembled in Seattle to meet the WTO delegates. Protests started peacefully but quickly became violent. Protesters looted stores and burned cars, and many delegates were unable to leave their hotel rooms.

Why would attempts to reduce trade barriers with the objective of increasing income around the world cause such a furious reaction? The opposition to the WTO comes from three sources. First, some opponents are specifically against the globalization process that began in the 1980s and became widespread in the 1990s. Second, other opponents have the same motivation as the supporters of tariffs in the 1930s—to erect trade barriers to protect domestic firms from foreign competition. Third, some critics of the WTO support globalization in principle but believe that the WTO favors the interests of the high-income countries at the expense of the low-income countries. Let's look more closely at the sources of opposition to the WTO.

Globalization The process of countries becoming more open to foreign trade and investment.

Anti-Globalization Many people distrust globalization. Some believe that free trade and foreign investment destroy the distinctive cultures of many countries. As developing countries began to open their economies to imports from the United States and other high-income countries, these imports of food, clothing, movies, and other goods began to replace the equivalent local products. So, a teenager in a country like Saudi Arabia, Kuwait, or Qatar, which has its own national dress, might be sitting in a McDonald's restaurant, wearing Levi's jeans and a Ralph Lauren shirt, listening to a recording by U2 on his iPod, before going to the local movie theater to watch *Spider-Man 3*. Globalization has increased the variety of products available to consumers in developing countries, but some people argue that this is too high a price to pay for what they see as damage to local cultures.

Globalization has also allowed multinational corporations to relocate factories from high-income countries to low-income countries. These new factories in Indonesia, Egypt, Pakistan, and other countries pay much lower wages than are paid in the United States, Europe, and Japan and often do not meet the environmental or safety regulations that are imposed in high-income countries. Some factories use child labor, which is illegal in high-income countries. Some people have argued that firms with factories in developing countries should pay workers wages as high as those paid in the high-income countries. They also believe these firms should follow the health, safety, and environmental regulations that exist in the high-income countries.

The governments of most developing countries have resisted these proposals. They argue that when the currently rich countries were poor, they also lacked environmental or safety standards, and their workers were paid low wages. They argue that it is easier for rich countries to afford high wages and environmental and safety regulations than it is for poor countries. They also point out that many jobs that seem very poorly paid by high-income country standards are often better than the alternatives available to workers in low-income countries.

Making the Connection

The WTO Strategy for the Arab Region

In 2001, the United Nations Conference on Trade and Development (UNCTAD) organized the UNCTAD High-Level Meeting for Arab countries on WTO trade issues for representatives of Arab countries accredited to UNCTAD and WTO. The major items on the agenda included a review of the implementation of WTO agreements; future trade issues on international trade; and matters related to the accession to WTO. At that time, only 11 Arab countries were WTO members and 5 countries were observers.

The then WTO Director-General Mike Moore gave a speech delivering the WTO view toward the Arab world. The following extract is a part of his speech.

We in the WTO are working on a Strategy for the Arab Region. There is a lot to do and it should have been done earlier. For the first time ever, we organized a meeting with Ambassadors from the Arab region to receive their advice on our strategy. We are also seeking guidance from other sources in the Arab region. The principal objectives of our strategy for the Arab region are:

- **First, to raise awareness in the Arab world on WTO.** It is important to explain to the Arab world what the WTO is, what it does, and what to expect of its upcoming ministerial. Awareness must also be raised on the importance international trade for economic growth.
- **Second, to facilitate the flow of information.** There is of course an undeniable language barrier confronting Arab members of WTO in the day-to-day work of the Organization. Another barrier to information flow is the dearth of Arab authors, and Arabic language publications, on WTO. These barriers must be overcome through improved information flow.

(Continued)

- **Third, to assist the Geneva-based missions of Arab delegations,** particularly small missions, in dealing with the very demanding work of WTO. The WTO is an organization in which large numbers of meetings can run simultaneously, and whose meetings require careful preparation as well as follow-up. Missions must be assisted in confronting this workload.
- **And, fourth, to prepare Arab countries for a potential round.** If a round is started, much work will be needed to help Arab countries seize the opportunities it provides.

Source: "The WTO and the Arab world: preparations for Doha," speech by Director-General Mike Moore at UNCTAD High-Level Meeting for Arab countries, Geneva, 20-21 June 2001. Transcript available at www.wto.org/english/news_e/spmm_e/spmm65_e.htm.

Note: As of 2009, 12 Arab countries became WTO members: Bahrain, Djibouti, Egypt, Jordan, Kuwait, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, and the United Arab Emirates. The following five countries are observers: Algeria, Lebanon, Libya, Sudan, and Yemen, www.wto.org.

Protectionism The use of trade barriers to shield domestic firms from foreign competition.

'Old-Fashioned' Protectionism The anti-globalization argument against free trade and the WTO is relatively new. Another argument against free trade, called *protectionism*, has been around for centuries. **Protectionism** is the use of trade barriers to shield domestic firms from foreign competition. For as long as international trade has existed, governments have attempted to restrict it to protect domestic firms. As we saw with the hypothetical example of the sugar quota in Egypt, protectionism causes losses to consumers and eliminates jobs in the domestic industries that use the protected product. In addition, by reducing the ability of countries to produce according to comparative advantage, protectionism reduces incomes.

Why, then, does protectionism attract support? Most Arab countries adopted different protectionism measures in the past. Protectionism was justified on the basis of one of the following arguments:

- **Saving jobs.** Supporters of protectionism argue that free trade reduces employment by driving domestic firms out of business. It is true that when more-efficient foreign firms drive less-efficient domestic firms out of business, jobs are lost, but jobs are also lost when more-efficient domestic firms drive less-efficient domestic firms out of business. These job losses are rarely permanent. No economic study has ever found a long-term connection between the total number of jobs available and the level of tariff protection for domestic industries. In addition, trade restrictions destroy jobs in some industries at the same time that they preserve jobs in others. A sugar quota could have saved jobs in the Egyptian sugar industry, but it may also have destroyed some jobs in the Egyptian candy industry.
- **Protecting high wages.** Some people worry that firms in high-income countries will have to start paying much lower wages to compete with firms in developing countries. This fear is misplaced, however, because free trade actually raises living standards by increasing economic efficiency. When a country practices protectionism and produces goods and services it could obtain more inexpensively from other countries, it reduces its standard of living. In the 1970s, Saudi Arabia reduced imports of wheat and began growing it domestically. The government gave large subsidies to local producers to encourage growing wheat. By the late 1980s, Saudi became a net exporter of wheat. But this would entail a very high opportunity cost because growing wheat would require large amounts of water. Without the government's subsidy the wheat would have to sell for a very high price to cover these costs. By 2008, the government abolished the wheat self-sufficiency program after the 30-year-project almost depleted Saudi's water reserves. The Kingdom now aims at meeting the domestic demand totally through imports by 2016. Eliminating the subsidies to Saudi farmers at some future time would eliminate the jobs of Saudi wheat workers, but the standard of living in Saudi Arabia would rise as wheat prices declined and labor, machinery, and other resources moved out of wheat production and into production of goods and services for which Saudi has a comparative advantage.

- **Protecting infant industries.** It is possible that firms in a country may have a comparative advantage in producing a good, but because the country begins production of the good later than other countries, its firms initially have higher costs. In producing some goods and services, substantial ‘learning by doing’ occurs. As workers and firms produce more of the good or service, they gain experience and become more productive. Over time, costs and prices will fall. As the firms in the ‘infant industry’ gain experience, their costs will fall, and they will be able to compete successfully with foreign producers. Under free trade, however, they may not get the chance. The established foreign producers can sell the product at a lower price and drive domestic producers out of business before they gain enough experience to compete. To economists, this is the most persuasive of the protectionist arguments. It has a significant drawback, however. Tariffs used to protect an infant industry eliminate the need for the firms in the industry to become productive enough to compete with foreign firms. In the 1960s, the government of Egypt used the ‘infant industry’ argument to justify high tariff rates and lists of banned imports. Unfortunately, most of the infant industries never grew up, and they continued for years as inefficient drains on the economy.
- **Protecting national security.** As already discussed, a country should not rely on other countries for goods that are critical to its military defense. For example, Egypt would probably not want to import all its jet fighter engines from Iran.

Dumping

In recent years, some countries have extended protection to some domestic industries by using a provision in the WTO agreement that allows governments to impose tariffs in the case of *dumping*. **Dumping** is selling a product for a price below its cost of production. Although allowable under the WTO agreement, using tariffs to offset the effects of dumping is very controversial.

In practice, it is difficult to determine whether foreign companies are dumping goods because the true production costs of a good are not easy for foreign governments to calculate. As a result, the WTO allows countries to determine that dumping has occurred if a product is exported for a lower price than it sells for on the home market. There is a problem with this approach, however. Often there are good business reasons for a firm to sell a product for different prices to different consumers. For example, the airlines charge business travelers higher ticket prices than leisure travelers. Firms also use ‘loss leaders’—products that are sold below cost, or even given away free—when introducing a new product or, in the case of retailing, to attract customers who will also buy full-price products. For example, when du started business and had to compete with Etisalat, the first company in the UAE telecom market, du gave the phone away free with every new subscription. During holydays, Carrefour offers toys at very cheap prices that could be in some cases below what they paid to the manufacturers. It’s unclear why these normal business practices should be unacceptable when used in international trade.

Dumping Selling a product for a price below its cost of production.

Positive versus Normative Analysis (Once Again)

Economists emphasize the burden on the economy imposed by tariffs, quotas, and other government restrictions on free trade. Does it follow that these interferences are bad? Remember from Chapter 1 the distinction between *positive analysis* and *normative analysis*. Positive analysis concerns what *is*. Normative analysis concerns what *ought to be*. Measuring the impact of the sugar quota on the Egyptian economy is an example of positive analysis. Asserting that the sugar quota is bad public policy and should be eliminated is normative analysis. The sugar quota—like all other interferences with trade—makes some people better off and some people worse off and it reduces total income and consumption. Whether increasing the profits of Egyptian sugar companies and the number of workers they employ justifies the costs imposed on consumers and the reduction in economic efficiency is a normative question.

Most economists do not support interferences with trade, such as the sugar quota. But the opposite view is certainly intellectually respectable. It is possible for someone to understand the costs of tariffs and quotas but still believe that tariffs and quotas are a good idea, perhaps because they believe unrestricted free trade would cause too much disruption to the economy.

The success of industries in getting the government to erect barriers to foreign competition depends partly on some members of the public knowing full well the costs of trade barriers but supporting them anyway. However, two other factors are also at work:

- 1 The costs tariffs and quotas impose on consumers are large in total but relatively small per person in a large country. In our hypothetical sugar quota example, the total burden of the quota spread across 80 million Egyptians would only be US\$7 per person: too little to bother most people, even if they know that the burden exists. So, the burden of quotas and tariffs per person in a large country is usually too small for an individual person to worry about.
- 2 The jobs lost to foreign competition are easy to identify, but the jobs created by foreign trade are less easy to identify. In other words, the industries that benefit from tariffs and quotas benefit a lot, whereas each consumer loses relatively little. This concentration of benefits and widely spread burdens makes it easy to understand why legislators are subject to strong pressure from some industries to enact tariffs and quotas and relatively little pressure from the general public to reduce them.

➤ Continued from page 453

Economics in YOUR Life!

At the beginning of the chapter, we asked you to consider how car companies have convinced the Egyptian government to keep the high tariff for years. In the chapter, we saw that the car tariff costs the Egyptian consumers as a result of higher domestic car prices. It also may have led several firms to eliminate domestic jobs and perhaps move their facilities to other countries as a result of higher transportation costs. This might seem to increase the mystery of why the government has kept the tariff; especially when it saves relatively few jobs in the Egyptian car industry. We have also seen that *per person*, the burden of the car tariff could be small per year. This cost is hidden and is not observable or directly linked to the car tariff for most consumers. Therefore, not too many people will be willing to take the time and effort to oppose the tariff. On the other hand, the Egyptian car industry's gains from the tariff are substantial, and hence car industry businessmen usually lobby hard to keep the tariff barriers high on fully made imported cars while reducing the tariff on parts. As a signatory of the General Agreement on Tariffs and Trade (GATT), the Egyptian government will eventually have to gradually reduce the import tariff on vehicles by 2019.

Conclusion

There are few issues economists agree upon more than the economic benefits of free trade. However, there are few political issues as controversial as government policy toward trade. Many people who would be reluctant to see the government interfere with domestic trade are quite willing to see it interfere with international trade. The damage high tariffs inflicted on the world economy during the 1930s shows what can happen when governments around the world abandon free trade. Whether future episodes of that type can be avoided is by no means certain.

Read *An Inside Look at Policy* on the next page for a discussion of how eliminating tariffs benefits the GCC countries and Singapore.

GULF NEWS, DECEMBER 15, 2008

First GCC Trade Accord Signed with Singapore

a Dubai: The six Gulf oil producers on Monday signed a free trade agreement (FTA) with Singapore, the first-ever FTA, a statement said.

“The Gulf Cooperation Council (GCC) Singapore FTA (GSFTA), the first-ever FTA for the GCC, is a key step forward for economic relations between Singapore and its 7th largest trading partner,” the statement said.

The GCC and Singapore agreed to enhance cooperation in the air services sector. Such cooperation may include, among other things, concluding air services agreements between one or more of the GCC countries and Singapore.

The GCC currently accounts for 40 per cent of Singapore’s oil imports. Bilateral trade with the GCC, comprising Saudi Arabia, the UAE, Qatar, Kuwait, Bahrain and Oman, reached a record high of US\$42.4 billion (Dh105.45 billion)

in 2007, a 127 per cent increase since 2002.

The agreement was signed in Doha between Singapore Prime Minister Lee Hsien Loong and his GCC counterparts, President-in-Office of the GCC Ministerial Council and Qatar Prime Minister Shaikh Hamad bin Jasem Al Thani, and GCC Secretary-General Abdul Rahman bin Hamad Al Attiyah.

b The GSFTA is a comprehensive free trade agreement covering areas including trade in goods, trade in services, investments, rules of origin, customs procedures, government procurement, electronic commerce, and economic cooperation.

(a) The agreement will grant tariff-free access for about 99 per cent of Singapore’s domestic exports, worth about US\$3.1 billion in 2007. All GCC goods entering into Singapore will also be granted tariff-free access.

(b) The GSFTA will also encourage a greater recognition of Singapore’s halal standards in the six-member Arab trade group. The GCC countries have committed to either recognize

or begin talks to recognize the Singapore Muis Halal Standards (SMHS) as consistent and compliant with similar standards in their countries.

Recognition of SMHS by the GCC countries will not only facilitate trade in halal product exports to the GCC, but will also provide greater assurance to Gulf visitors that their dietary requirements will be met when they visit Singapore.

(c) The GSFTA allows Singapore-based companies and Singapore permanent residents to hold majority stakes in key sectors of the GCC markets. In particular, Singapore gained enhanced access in the UAE, Saudi Arabia, and Qatar for construction services, computer services, environmental services, and professional services.

GCC countries are committed to signing bilateral Investment Guarantee Agreements (IGAs) with Singapore in order to better protect the investments of our businessmen in each other’s countries.

Source: Staff Report, *Gulf News*, December 15, 2008.



and increase the flow of goods, services, and investment between the two economies.

Analyzing the News

a Free Trade Agreements can facilitate the flow of investments to the services

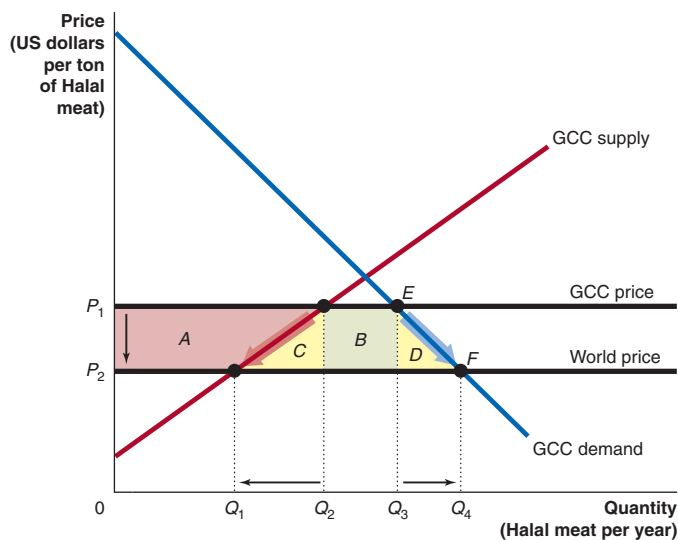
sector, resulting in larger trade in services as well. Trade agreements can also encourage increasing bilateral and multilateral investment agreements, increasing capital flows.

b In this chapter, we saw that expanding trade raises living standards by increasing consumption and economic efficiency. Reducing tariffs on trade between Singapore and the GCC countries will aid consumers in both countries. The figure below shows the GCC market as a bloc following the elimination of the tariff on Singapore halal meat products. (For simplicity, we assume that there are no remaining GCC tariffs on meat products.) The price of halal processed meat in the GCC countries falls from P_1 to P_2 , and equilibrium in the GCC processed meat market moves from point E to point F . GCC consumption of processed meat increases from Q_3 to Q_4 , the

quantity of processed meat supplied by GCC markets declines from Q_2 to Q_1 , and imports increase from $Q_3 - Q_2$ to $Q_4 - Q_1$. Consumer surplus increases by the sum of areas A , B , C , and D . Area A represents a transfer from producer surplus under the tariff to consumer surplus. Areas C and D represent the conversion of deadweight loss to consumer surplus. Area B represents a conversion of government tariff revenue to consumer surplus. Eliminating the tariff reduces the cost to Singapore processed meat producers of selling their product in the GCC markets. GCC consumers purchase a larger quantity of Singaporean processed meat products at a lower price. The figure shows that eliminating the tariff on halal processed meat also eliminates the revenue the GCC governments had been collecting from this tariff. In developing oil-rich countries, such as the GCC countries, governments receive most of their revenues from royalties and oil sales. The tax base is generally weak, and tariff revenues are a very small percentage of all revenue received by the government. In more developed economies, the government mostly relies on taxes on personal and corporate income. But governments in low-income developing countries often have difficulty collecting income taxes, so they rely heavily on tariffs for revenue. In these countries, the government's need for revenue can pose a serious barrier to expanding international trade by reducing tariffs because governments have difficulty replacing the revenues lost from tariff reductions.

Note: Halal meat is Islamic-Law- (Sharia-) compliant meat products from animals that have been slaughtered and processed according to Islamic Law.

Increase in Consumer Surplus	=	Decrease in Producer Surplus	+	Decrease in Government Tariff Revenue	+	Decrease in Deadweight Loss
$A + C + B + D$		A		B		$C + D$



The market for halal meat in the GCC after the elimination of the tariff on Singapore halal meat products.

Thinking Critically About Policy

1. Tariffs on Singaporean meat products imports save jobs for GCC nationals working in those industries. Do you support these tariffs? Why or why not?
2. In which goods mentioned in the article does the GCC have a comparative advantage? In which does Singapore have a comparative advantage? Explain your reasoning.

Key Terms

Absolute advantage, p. 460	External economies, p. 467	Protectionism, p. 478	Voluntary export restraint (VER), p. 470
Autarky, p. 461	Free trade, p. 468	Quota, p. 470	World Trade Organization (WTO), p. 476
Comparative advantage, p. 459	Globalization, p. 476	Tariff, p. 454	
Dumping, p. 479	Imports, p. 454	Terms of trade, p. 461	
Exports, p. 454	Opportunity cost, p. 459		

Summary

14.1 LEARNING OBJECTIVE

Discuss the role of international trade in the Arab world economy, pages 454–459.

The Arab World in the International Economy

International trade has been increasing in recent decades, in part because of reductions in *tariffs* and other barriers to trade. A **tariff** is a tax imposed by a government on imports. The quantity of goods and services the United States imports and exports has been continually increasing. **Imports** are goods and services bought domestically but produced in other countries. **Exports** are goods and services produced domestically but sold to other countries. Today, the United States is the leading exporting country in the world, and about 20 percent of U.S. manufacturing jobs depend on exports.

14.2 LEARNING OBJECTIVE

Understand the difference between comparative advantage and absolute advantage in international trade, pages 459–461.

Comparative Advantage in International Trade

Comparative advantage is the ability of an individual, a business, or a country to produce a good or service at the lowest **opportunity cost**. **Absolute advantage** is the ability to produce more of a good or service than competitors when using the same amount of resources. Countries trade on the basis of comparative advantage, not on the basis of absolute advantage.

14.3 LEARNING OBJECTIVE

Explain how countries gain from international trade, pages 461–468.

How Countries Gain from International Trade

Autarky is a situation in which a country does not trade with other countries. The **terms of trade** is the ratio at which a country can trade its exports for imports from other countries. When a country specializes in producing goods where it has a comparative advantage and trades for the other goods it needs, the country will have a higher level of income and consumption. We do not see complete specialization in production for three reasons: not all goods and services are traded internationally, production of most goods involves increasing opportunity costs, and tastes for products differ across countries. Although the population of a country as a whole benefits from trade, companies—and their workers—that are unable to compete with lower-cost foreign producers lose. Among the main sources of comparative advantage are climate and natural resources, relative abundance of labor and capital, technology, and *external economies*. **External economies** are reductions in a firm’s cost that result from an increase in the size of an industry. A country may develop a comparative advantage in the production of a good, and then as time passes and circumstances change, the country may lose its comparative advantage in producing that good and develop a comparative advantage in producing other goods.

14.4 LEARNING OBJECTIVE

Analyze the economic effects of government policies that restrict international trade, pages 468–476.

Government Policies That Restrict International Trade

Free trade is trade between countries without government restrictions. Government policies that interfere with trade usually take the form of: *tariffs*, *quotas*, or *voluntary export restraints* (VERs). A **tariff** is a tax imposed by a government on imports to protect the domestic industry, save jobs, and raise revenue. A **quota** is a numeric limit

imposed by a government on the quantity of a good that can be imported into the country. A **voluntary export restraint (VER)** is an agreement negotiated between two countries that places a numeric limit on the quantity of a good that can be imported by one country from the other country. Saving jobs by using tariffs and quotas is often very expensive since consumers of imported goods will pay higher price to enjoy consuming these goods.

The Argument over Trade Policies and Globalization

The **World Trade Organization (WTO)** is an international organization that enforces international trade agreements. The WTO has promoted **globalization**, the process of countries becoming more open to foreign trade and investment. Some critics of the WTO argue that globalization has damaged local cultures around the world. Other critics oppose the WTO because they believe in **protectionism**, which is the use of trade barriers to shield domestic firms from foreign competition. The WTO allows countries to use tariffs in cases of **dumping**, when an imported product is sold for a price below its cost of production. Economists can point out the burden imposed on the economy by tariffs, quotas, and other government interferences with free trade. But whether these policies should be used is a normative decision.

14.5 LEARNING OBJECTIVE

Evaluate the arguments over trade policy and globalization, pages 476–481.

Review, Problems and Applications



Visit www.pearsoned.co.uk/awe/hubbard to complete these exercises online and get instant feedback.

14.1 LEARNING OBJECTIVE

Discuss the role of international trade in the Arab world economy, pages 454–459.

Review Questions

- 1.1 Briefly explain whether you agree or disagree with the following statement: “International trade is more important to the Arab countries than some developed economies such as the U.S. economy.”

- 1.3 Briefly explain why you agree with the following statement: “Egypt and Lebanon exports to their GDP are much less than those of Saudi Arabia, Qatar, and Kuwait”.

Problems and Applications

- 1.2 If the United Arab Emirates were to stop trading goods and services with other countries, how this will affect the UAE economy? Briefly explain.

14.2 LEARNING OBJECTIVE

Understand the difference between comparative advantage and absolute advantage in international trade, pages 459–461.

Review Questions

- 2.1 A World Trade Organization publication calls comparative advantage “arguably the single most powerful insight in economics.” What is comparative advantage? What makes it such a powerful insight?
Source: World Trade Organization, *Trading into the Future*, April 1999.
- 2.2 What is the difference between absolute advantage and comparative advantage? Will a country always be an exporter of a good where it has an absolute advantage in production?

Problems and Applications

- 2.3 Why do the goods that countries import and export change over time? Use the concept of comparative advantage in your answer.
- 2.4 Briefly explain whether you agree with the following argument: “Unfortunately, Oman does not have a comparative advantage with respect to the Jordan in the production of any good or service.” (*Hint: You do not need any specific information about the economies of Oman or Jordan to be able to answer this question.*)

2.5 In 1987, an economic study showed that, on average, workers in the Japanese consumer electronics industry produced less output per hour than did U.S. workers producing the same goods. Despite this fact, Japan exported large quantities of consumer

electronics to the United States. Briefly explain how this is possible.

Source: Study cited in Douglas A. Irwin, *Free Trade under Fire*, Princeton, NJ: Princeton University Press, 2002, p. 27.

14.3 LEARNING OBJECTIVE
Explain how countries gain from international trade, pages 461–468.

Review Questions

- 3.1 Briefly explain how international trade increases a country’s consumption.
- 3.2 What is meant by a country specializing in the production of a good? Is it typical for countries to be completely specialized? Briefly explain.
- 3.3 What are the main sources of comparative advantage?

Problems and Applications

3.4 (Related to Solved Problem 14-3 on page 463) The following table shows the hourly output per worker in two industries in Kuwait and Syria.

	OUTPUT PER HOUR OF WORK	
	CLOTHES	DAIRY PRODUCTS
KUWAIT	8	6
SYRIA	1	2

- a. Explain which country has an absolute advantage in the production of clothes and which country has an absolute advantage in the production of dairy products.
- b. Explain which country has a comparative advantage in the production of clothes and which country has a comparative advantage in the production of dairy products.
- c. Suppose that Kuwait and Syria currently do not trade with each other. Each has 1,000 hours of labor to use producing clothes and dairy products, and the countries are currently producing the amounts of each good shown in the following table.

	CLOTHES	DAIRY PRODUCTS
KUWAIT	7,200	600
SYRIA	600	800

Using this information, give a numeric example of how Kuwait and Syria can both gain from trade. Assume that after trading begins, one hat can be exchanged for one kilo of dairy products.

3.5 (Related to Solved Problem 14-3 on page 463) A political commentator makes the following statement:

The idea that international trade should be based on the comparative advantage of each country is fine for rich countries like the United States and Japan. Rich countries have educated workers and large quantities of machinery and equipment. These advantages allow them to produce every product more efficiently than poor countries can. Poor countries like Kenya and Bolivia have nothing to gain from international trade based on comparative advantage.

Do you agree with this argument? Briefly explain.

- 3.6 Demonstrate how the opportunity costs of producing cellphones and digital music players in Japan and the United States were calculated in Table 14-2 on page 457.
- 3.7 Briefly explain whether you agree or disagree with the following statement: “Most countries exhaust their comparative advantage in producing a good or service before they reach complete specialization.”
- 3.8 Is free trade likely to benefit a large, populous country, such as Egypt, more than a small country with fewer people, such as Qatar? Briefly explain.
- 3.9 Many Arabs could associate free trade with job losses rather than opportunities and a higher standard of living. Do you agree? Briefly explain.

Source: Surya Sen and Dan Wassmann, *The Great Trade Debate: From Rhetoric to Reality*, Federal Reserve Bank of Chicago, January 1999.

3.10 Hal Varian, an economist at the University of California, Berkeley, has made two observations about international trade:

- a. Trade allows a country “to produce more with less.”
- b. There is little doubt who wins [from trade] in the long run: consumers.

Briefly explain whether you agree with either or both of these observations.

Source: Hal R. Varian, “The Mixed Bag of Productivity,” *New York Times*, October 23, 2003.

3.11 Briefly explain whether you agree or disagree with the following statement: “I can’t believe that anyone opposes expanding international trade. After all, when international trade expands, everyone wins.”

3.12 (Related to the Making the Connection on page 465) Explain why there are advantages to a movie studio operating in Egypt, rather than in, say, Bahrain.

14.4 LEARNING OBJECTIVE

Analyze the economic effects of government policies that restrict international trade,

pages 468–476.

Review Questions

- 4.1 What is a tariff? What is a quota? Give an example of a non-tariff barrier to trade.
- 4.2 Who gains and who loses when a country imposes a tariff or a quota on imports of a good?

Problems and Applications

- 4.3 An editorial in *BusinessWeek* argued the following:

[President] Bush needs to send a pure and clear signal that the U.S. supports free trade on its merits.... That means resisting any further protectionist demands by lawmakers. It could even mean unilaterally reducing tariffs or taking down trade barriers rather than erecting new ones. Such moves would benefit U.S. consumers while giving a needed boost to struggling economies overseas.

What does the editorial mean by “protectionist demands”? How would the unilateral elimination of U.S. trade barriers benefit both U.S. consumers and economies overseas?

Source: “The Threat of Protectionism,” *BusinessWeek*, June 3, 2002.

- 4.4 Do you agree that a country benefits from free trade only if every other country also practices free trade? Briefly explain.
- 4.5 Saudi Arabia produces beef and also imports beef from other countries.
 - a. Draw a graph showing the supply and demand for beef in Saudi Arabia. Assume that Saudi Arabia can import as much as it wants at the world price of beef without causing the world price of beef to increase. Be sure to indicate on the graph the quantity of beef imported.
 - b. Now show on your graph the effect of Saudi Arabia imposing a tariff on beef. Be sure to indicate on your graph the quantity of beef sold by Saudi producers before and after the tariff is imposed, the quantity of beef imported before and after the tariff, and the price of beef in Saudi Arabia before and after the tariff.
 - c. Discuss who benefits and who loses when Saudi Arabia imposes a tariff on beef.
- 4.6 When Congress was considering a bill to impose quotas on imports of textiles, shoes, and other products (the bill that affected the exports of Jordan, Morocco, and Egypt), Milton Friedman, a Nobel Prize-winning economist, made the following comment: “The consumer will be forced to spend several extra dollars to subsidize the producers [of these goods] by one dollar. A straight handout would be far cheaper.” Why would a quota result in

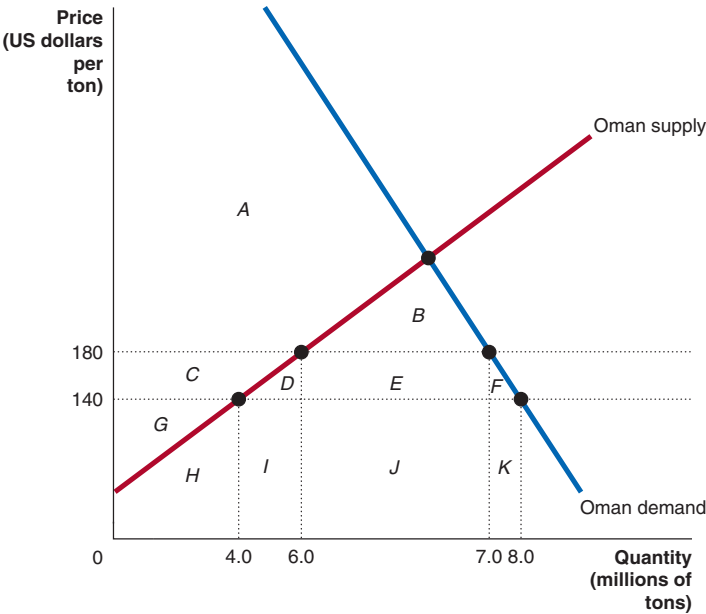
consumers paying much more than domestic producers receive? Where do the other dollars go? What does Friedman mean by a “straight handout”? Why would this be cheaper than a quota?

Source: Milton Friedman, “Free Trade,” *Newsweek*, August 27, 1970.

- 4.7 In the 1980s, Saudi wheat farmers received large subsidies from the government. These payments resulted in Saudi farmers producing much more wheat than they otherwise would. That resulted in Saudi becoming a net wheat exporter. Why could it be the case that the subsidies paid to wheat farmers in Saudi will reduce the incomes of wheat farmers in Africa?
- 4.8 Suppose that the Egyptian government decided to impose a quota on steel imports in order to protect the domestic steel industry and save hundreds of jobs in the steel industry. Some opponents say that this procedure will result in losing jobs in other Egyptian industries. Why would a quota on steel imports cause employment to fall in other industries? Which other industries are likely to be most affected?
- 4.9 A student makes the following argument:

Tariffs on imports of foreign goods into Jordan will cause the foreign companies to add the amount of the tariff to the prices they charge in Jordan for those goods. Instead of putting a tariff on imported goods, we should ban importing them. Banning imported goods is better than putting tariffs on them because Jordanian producers benefit from the reduced competition and Jordanian consumers don’t have to pay the higher prices caused by tariffs.

Briefly explain whether you agree with the student’s reasoning.
- 4.10 Suppose China decides to pay large subsidies to any Chinese company that exports goods or services to the GCC. As a result, these companies are able to sell products in the GCC at far below their cost of production. In addition, China decides to bar all imports from the GCC. The dollars that the GCC countries pay to import Chinese goods are left in banks in China. Will this strategy raise or lower the standard of living in China? Will it raise or lower the standard of living in the GCC? Briefly explain. Be sure to provide a definition of ‘standard of living’ in your answer.
- 4.11 (Related to Solved Problem 14-4 on page 472) Suppose that Oman currently both produces cement and imports it. The government of Oman then decides to restrict international trade in cement by imposing a quota that allows imports of only one million tons of cement into Oman each year. The figure shows the results of imposing the quota.



Fill in the table on the following page using the letters in the figure:

	WITHOUT QUOTA	WITH QUOTA
World price of cement		
Oman price of cement		
Quantity supplied by Omani firms		
Quantity demanded		
Quantity imported		
Area of consumer surplus		
Area of domestic producer surplus		
Area of deadweight loss		

14.5 LEARNING OBJECTIVE
Evaluate the arguments over trade policy and globalization, pages 476–481.

Review Questions

- What events led to the General Agreement on Tariffs and Trade? Why did the World Trade Organization eventually replace GATT?
- What is globalization? Why are some people opposed to globalization?
- What is protectionism? Who benefits and who loses from protectionist policies? What are the main arguments people use to justify protectionism?
- What is dumping? Who benefits and who loses from dumping? What problems arise when implementing anti-dumping laws?

Problems and Applications

- Steven Landsburg, an economist at the University of Rochester, wrote the following in an article in the *New York Times*:

Free trade is not only about the right of American consumers to buy at the cheapest possible price; it's also about the right of foreign producers to earn a living. Steelworkers in West Virginia struggle hard to make ends meet. So do steelworkers in South Korea. To protect one at the expense of the other, solely because of where they happened to be born, is a moral outrage.

How does the U.S. government protect steelworkers in West Virginia at the expense of steelworkers in South Korea? Is Landsburg making a positive or a normative statement? A few days later, Tom Redburn published an article disagreeing with Landsburg:

It is not some evil character flaw to care more about the welfare of people nearby than about that of those far away—it's human nature. And it is morally—and economically—defensible.... A society that ignores the consequences of economic disruption on those among its citizens who come out at the short end of the stick is not only heartless, it also undermines its own cohesion and adaptability.

Which of the two arguments do you find most convincing?

Sources: Steven E. Landsburg, "Who Cares if the Playing Field Is Level?" *New York Times*, June 13, 2001; and Tom Redburn, "Economic View: Of Politics, Free Markets, and Tending to Society," *New York Times*, June 17, 2001.

- Do you agree that the negative effects of international trade are more visible than the positive effects? Briefly explain.

Glossary

Absolute advantage | الميزة المطلقة

The ability of an individual, a firm, or a country to produce more of a good or service than competitors, using the same amount of resources

Accounting profit | الربح المحاسبي

A firm's net income measured by revenue minus operating expenses and taxes paid

Aggregate demand and aggregate supply model |

نموذج الطلب الإجمالي و العرض الإجمالي

A model that explains short-run fluctuations in real GDP and the price level.

Aggregate demand curve | منحني الطلب الإجمالي

A curve that shows the relationship between the price level and the quantity of real GDP demanded by households, firms, and the government.

Aggregate expenditure (AE) | منحني الإنفاق الإجمالي

The total amount of spending in the economy: the sum of consumption, planned investment, government purchases, and net exports.

Aggregate expenditure model | الإنفاق الإجمالي نموذج

A macroeconomic model that focuses on the relationship between total spending and real GDP, assuming that the price level is constant.

Allocative efficiency | الفعالية التخصيصية

A state of the economy in which production is in accordance with consumer preferences; in particular, every good or service is produced up to the point where the last unit provides a marginal benefit to society equal to the marginal cost of producing it

Antitrust laws | قوانين مقاومة الإحتكار

Laws aimed at eliminating collusion and promoting competition among firms

Autarky | الاكتفاء الذاتي

A situation in which a country does not trade with other countries.

Automatic stabilizers | مثبتات تلقائية للاقتصاد

Government spending and taxes that automatically increase or decrease along with the business cycle.

Autonomous expenditure | النفقات التلقائية

An expenditure that does not depend on the level of GDP.

Average fixed cost | متوسط التكلفة الثابتة

Fixed cost divided by the quantity of output produced

Average product of labor | متوسط إنتاج العمال

The total output produced by a firm divided by the quantity of workers

Average revenue (AR) | متوسط العائد، معدل الدخل

Total revenue divided by the quantity of the product sold

Average total cost | متوسط إجمالي التكاليف

Total cost divided by the quantity of output produced

Average variable cost | معدل التكلفة المتغيرة

Variable cost divided by the quantity of output produced

Balance of payments | ميزان المدفوعات

The record of a country's trade with other countries in goods, services, and assets.

Balance of trade | الميزان التجاري

The difference between the value of the goods a country exports and the value of the goods a country imports.

Bank panic | ذعر بنكي

A situation in which many banks experience runs at the same time.

Bank run | سحب غير اعتيادي للودائع

A situation in which many depositors simultaneously decide to withdraw money from a bank.

Barrier to entry | حاجز تجاري، عائق تجاري

Anything that keeps new firms from entering an industry in which firms are earning economic profits

Behavioral economics | الاقتصاد السلوكي

The study of situations in which people make choices that do not appear to be economically rational

Black market | سوق سوداء، سوق موازية

A market in which buying and selling take place at prices that violate government price regulations.

Brand management | إدارة العلامة التجارية

The actions of a firm intended to maintain the differentiation of a product over time

Budget constraint | ضغط الموازنة

The limited amount of income available to consumers to spend on goods and services

Budget deficit | عجز الموازنة

The situation in which the government's expenditures are greater than its tax revenue.

Budget surplus | فائض الموازنة

The situation in which the government's expenditures are less than its tax revenue.

Business cycle | دورة الأعمال التجارية

Alternating periods of economic expansion and economic recession.

Business strategy | استراتيجية إدارة الأعمال

Actions taken by a firm to achieve a goal, such as maximizing profits

Capital | رأس المال

Manufactured goods that are used to produce other goods and services.

Capital account | حساب رأس المال

The part of the balance of payments that records relatively minor transactions, such as migrants' transfers, and sales and purchases of nonproduced, nonfinancial assets.

Cartel | اتفاق احتكاري، اتحاد احتكاري للمنتجين

A group of firms that collude by agreeing to restrict output to increase prices and profits

Cash flow | تدفق نقدي

The difference between the cash revenues received by a firm and the cash spending by the firm.

Central Bank | البنك المركزي

An agency of the government that regulates the money supply.

Central Bank's funds rate | البنك المركزي سعر فائدة

The interest rate banks charge each other for overnight loans

Centrally planned economy | الإقتصاد مركزي التخطيط

An economy in which the government decides how economic resources will be allocated

Ceteris paribus("all else equal"): بقية العوامل متكافئة

The requirement that when analyzing the relationship between two variables—such as price and quantity demanded—other variables must be held constant

Circular-flow diagram | مخطط التدفق الدائري

A model that illustrates how participants in markets are linked

Closed economy | اقتصاد مغلق

An economy that has no interactions in trade or finance with other countries.

Coase theorem | نظرية كوز

The argument of economist Ronald Coase that if transactions costs are low, private bargaining will result in an efficient solution to the problem of externalities.

Collusion | تحالف احتكاري

An agreement among firms to charge the same price or otherwise not to compete

Command and control approach | نهج الضبط والتحكم

An approach that involves the government imposing quantitative limits on the amount of pollution firms are allowed to emit or requiring firms to install specific pollution control devices.

Commodity money | النقود السلعية

A good used as money that also has value independent of its use as money.

Common resource | المورد المشترك

A good that is rival but not excludable.

Comparative advantage | الميزة النسبية

The ability of an individual, a firm, or a country to produce a good or service at a lower opportunity cost than competitors.

Comparative advantage | الميزة النسبية

The ability of an individual, a firm, or a country to produce a good or service at a lower opportunity cost than competitors

Compensating differentials | تعويض الفوارق

Higher wages that compensate workers for unpleasant aspects of a job.

Competitive market equilibrium | سوق تنافسي التوازن

A market equilibrium with many buyers and many sellers

Complements | سلع مترابطة

Goods and services that are used together

Constant returns to scale | عوائد ثابتة بالنسبة للحجم

The situation when a firm's long-run average costs remain unchanged as it increases output

Consumer price index (CPI) | مؤشر أسعار المستهلكين

An average of the prices of the goods and services purchased by the typical urban family of four.

Consumer surplus | فائض المستهلك

The difference between the highest price a consumer is willing to pay and the price the consumer actually pays

Consumption | استهلاك

Spending by households on goods and services, not including spending on new houses.

Consumption function | دالة الاستهلاك

The relationship between consumption spending and disposable income.

Contractionary monetary policy | سياسة مالية انكماشية

The Federal Reserve's adjusting the money supply to increase interest rates to reduce inflation.

Cooperative equilibrium | التوازن التعاوني

An equilibrium in a game in which players cooperate to increase their mutual payoff

Copyright | حقوق الإنتاج

A government-granted exclusive right to produce and sell a creation

Cross-price elasticity of demand | المرونة السعرية التقاطعية للطلب

The percentage change in quantity demanded of one good divided by the percentage change in the price of another good

Crowding out | التزاحم الطارد

A decline in private expenditures as a result of an increase in government purchases.

Currency appreciation | ارتفاع سعر العملة

An increase in the market value of one currency relative to another currency.

Currency depreciation | انخفاض قيمة العملة

A decrease in the market value of one currency relative to another currency.

Current account | الحساب الجاري

The part of the balance of payments that records a country's net exports, net investment income, and net transfers.

Cyclical unemployment | بطالة دورية

Unemployment caused by a business cycle recession

Cyclically adjusted budget deficit or surplus | عجز أو فائض الميزانية المعدل دورياً

The deficit or surplus in the federal government's budget if the economy were at potential GDP.

Deadweight loss | السوق الساكنة خسارة

The reduction in economic surplus resulting from a market not being in competitive equilibrium

Deflation | الانكماش

A decline in the price level.

Demand curve | منحنى الطلب

A curve that shows the relationship between the price of a product and the quantity of the product demanded

Demand schedule | جدول الطلب

A table showing the relationship between the price of a product and the quantity of the product demanded

Demographics | التغيرات السكانية

The characteristics of a population with respect to age, race, and gender

Derived demand | طلب مشتق

The demand for a factor of production that is derived from the demand for the good the factor produces.

Discount loans | القروض المخفضة / المخصومة

Loans the Federal Reserve makes to banks.

Discount rate | سعر الخصم

The interest rate the Federal Reserve charges on discount loans.



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