Preface and Acknowledgments xix

1. Introduction 1
   Four Key Drivers for the Chinese Economy 2
   A Large Population 2
   A Very High Savings Rate 2
   The Government's Role 2
   Labor: The Great Economic Shock Absorber 2
   Macroeconomics Review and Overview 3
   The Macroeconomic Tradition 3
   Case Study 1.1: Confucius, Adam Smith, and Family Values 6
   Back to Supply and Demand 7
   Key Analytic Distinctions in Macroeconomics 9
   Business Cycles vs. Growth Cycles 9
   Nominal and Real Variables 9
   Flow Variables vs. Stock Variables 13
   Exogenous vs. Endogenous Variables 13
   Ten Basic Macro Facts Most Economists Could Agree On: A Chance to Review 14
   Challenging Questions for China (and the Student): Chapter 1 14
   Notes 15
   Reference 15

2. Measuring and Accounting for the Output of a Nation: GDP 16
   Different Approaches to Measuring GDP 16
   Case Study 2.1: China's Basic Numbering System 18
   Value of Final Goods and Sales Approach 18
   Macro Finance Insight 2.1: One Firm's Contribution to GDP 19
   Expenditure Approach 20
   Value-Added Approach 22
   Case Study 2.2: Goldilocks Data—Who Inflated and Shrunk China's GDP? 24
   Macro Finance Insight 2.2: GDP Smoothing and Earnings Management 27
   Income Approach 28
   China's Presentation of GDP Data 29
   Issues in Measuring GDP 30
Contents

Does GDP Correspond to Well-Being? 30

Case Study 2.3: The Environment and Trade with the United States 31

Quality of Growth 32

Macro Finance Insight 2.3: Quantity of GDP vs. Quality of GDP 33

Prices and GDP Measurement 34

Price Distortions 34

Converting Nominal GDP into Real GDP: The Use of Price Indexes 35

China’s Price Indexes 37

Consumer Price Index (CPI) 37

The GDP Deflator 38

Other Price Indexes 39

Price Index Issues 40

Case Study 2.4: China’s Unemployment Rate 40

Alternative Measures of GDP 42

Unaccounted Output 42

Macro Finance Insight 2.4: Stakeholders in the Macroeconomy 43

Purchasing Power Parity GDP 45

Command GDP 46

Challenging Questions for China (and the Student): Chapter 2 48

Notes 49

References 50

3. China and the United States and the Balance of Payments 52

Case Study 3.1: China’s Cautious (Wise) and Staged Liberalization of the Capital Account 53

Balance of Payments 54

Case Study 3.2: How Did China Accumulate Over US$3 Trillion in Foreign Exchange Reserves? 58

Macro Finance Insight 3.1: The Role of the International Monetary Fund 59

Macro Finance Insight 3.2: China’s External Balance Sheet and Capital Structure 60

Macro Finance Insight 3.3: The Pecking Order Theory 61

Current Account Balance from Four Angles 62

Approach #1: Current Account Balance by Definition 62

Approach #2: Current Account Balance and Absorption 62

Case Study 3.3: China and the United States—Two Sides of the Same Coin 63

Approach #3: Current Account Balance and the Gap Between Savings and Investment 63

Approach #4: Current Account Balance and External Debt 64

Macro Finance Insight 3.4: What is the Cash Flow for an Entire Economy? 65

Challenging Questions for China (and the Student): Chapter 3 67

Notes 68

References 68
### Contents

1. **Long-Run Economic Growth** 69

   **Part I: Economic Basis for Long-Run Growth** 71

   - **The Accounting Framework** 71
     - Case Study 4.1: China’s Growth Since the 1978 Economic Reforms 72
   - Accounting for Growth in Labor Productivity 74
     - From Solow Accounting to Solow Theory 74
     - Case Study 4.2: China’s Population Controls 76
     - Case Study 4.3: Solow Theory and Why China Is Growing Far Faster Than the United States and Europe 79
     - Case Study 4.4: Are China’s Provinces Converging? 81
   - Further Insights into Long-Run Growth 83
     - Case Study 4.5: Increasing and Decreasing Returns-to-Scale 84
     - Macro Finance Insight 4.1: Sustainable Growth I—National Returns on Capital 85
     - Case Study 4.6: Cautionary Tale of Two Cities—Singapore vs. Hong Kong 87

2. **Part II: Financial Basis for Long-Run Quality Growth** 88

   - Using ROIC and WACC to Evaluate the Quality of Growth 89
   - Measuring ROIC and the Cost of Capital à la Wicksell 89
   - Measuring Returns on Capital 91
     - The Solow Approach and ROIC 91
     - Macro Finance Insight 4.2: Return to Capital—ROIC and ICOR 93
   - Actual Profits and ROIC 94
     - A Broader Measure of ROIC: The Dupont Model and Macro Aggregates 95
     - Macro Finance Insight 4.3: Sustainable Growth II—The Dupont Model 99
   - Measuring the Cost of Capital 100
     - Summary of China, the United States, and the Cost of Capital 102
     - Macro Finance Insight 4.4: Growth and Competitive Advantage 103
   - Summary of the Returns and Cost of Capital 104

3. **Challenging Questions for China (and the Student): Chapter 4** 104

4. **Notes** 105

5. **References** 106

6. **Consumption and Savings in China and the United States** 108

   **China’s Current Savings Rate** 108

   - Theories of Savings 110
     - Disposable Income, Consumption, and the Interest Rate 111
     - Life Cycle, Permanent Income, and Wealth Effects 111
     - Case Study 5.1: Is Consumption (消费) a Bad Word? 113
     - Liquidity/Borrowing Constraints 113
     - Precautionary Motive for Savings 114
     - Specific Savings Motives 115
   - Why Has China’s Savings Rate Risen So High? 115
     - China’s Precautionary Motive 115
     - Case Study 5.2: Recent Chinese History and the Precautionary Motive for Savings. 116
Defining Money (Institutionally) 156
Case Study 7.2: RMB Notes by the Carload 158
Macro Finance Insight 7.1: Walras's Law and How China and the United States Hold Wealth 159
Defining the Velocity of Money 163
Case Study 7.3: Did the Chinese Invent Velocity, Too? 163
The Money Supply Process 164
Monetary Policy Tools 165
Open Market Operations 165
Discount Window Lending 166
Macro Finance Insight 7.2: Seasonality and an Elastic Currency 168
Window Guidance 172
Reserve Requirements 172
Macro Finance Insight 7.3: Return on Equity (ROE) and the Money Multiplier 174
Interest Rate Ceilings and Floors 175
Directed Credit 178
Case Study 7.4: Developments in China's Financial Markets 179
Regulatory Fiat 180
Government Deposit Management 180
Price-Based vs. Quantity-Based; Market-Based vs. Non-Market-Based 181
Summary of Differences 181
Case Study 7.5: China's 'Big Four' Banks 182
Case Study 7.6: Financial Innovation or Financial Disintermediation in China 184
Macro Finance Insight 7.4: Demand for Money as an Option: the Precautionary Motive 184
Challenging Questions for China (and the Student): Chapter 7 187
Notes 188
References 188

8. Monetary Policy in Action 190
Broad Goals of Monetary Policy 190
The Chinese Dilemma and the Policy Trilemma 191
The Basic Conflict 191
Macro Finance Insight 8.1: Current Account Surpluses and the Policy Trilemma 195
Capital Mobility and the Policy Trilemma 197
Sterilization and the Monetary Authority's Balance Sheet 199
Case Study 8.1: Walras's Law, the Flow of Funds, and Missing Assets and Wealth 200
Case Study 8.2: Are China's Holdings of U.S. Dollars Profitable? 202
Recent Monetary Policy Developments 202
Case Study 8.3: China's Capital Structure 208
Summary 210
Challenging Questions for China (and the Student): Chapter 8 210
Notes 211
References 211
9. **The Keynesian Model: Extensions to China and Beyond** 213

*Traditional Keynesian Framework: Investment, Savings, Liquidity Preference, and Money Supply* 213

*IS/LM: A Review* 213

Equilibrium in the Market for Goods and Services (the Market for GDP or the IS Curve) 213

Equilibrium in the Money Market (the LM Curve) 215

Equilibrium in Both Markets 217

*Case Study 9.1: China and the Keynesian Framework* 219

*Aggregate Demand and Supply* 221

*Keynesian Model Extensions* 224

Goods Market Equilibrium and Interest Rate Overshooting 224

Overshooting in Currency Markets 225

*Macro Finance Insight 9.1: Is a Nation’s Exchange Rate Its ‘‘Stock Price?’’* 227

*Macro Finance Insight 9.2: Sticky Capital Stock: Overshooting in Equity Markets* 230

*Challenges to Fiscal Policy for Economic Management* 232

Crowding Out: The Case Against More Government Spending 232

*Case Study 9.2: Crowding Out in China* 234

Ricardian Equivalence: Linking Government Spending to Future Taxation 235

Flexible Wages, Prices, and Efficient Labor Markets 235

*Case Study 9.3: The Chinese Citizen as a Great Economic Shock Absorber* 236

*Macro Finance Insight 9.3: Adjusted Tobin’s Q as a Measure of Economic Performance* 237

National Budget Constraint in International Financial Markets 238

Intertemporal Budget Constraint (ITBC) 238

*Challenging Questions for China (and the Student): Chapter 9* 240

*Notes* 241

*References* 241

10. **Public Finances and Fiscal Policy in Action** 243

*Case Study 10.1: Administrative Levels in China* 243

*Case Study 10.2: China’s Five-Year Plans* 244

*Key Goals of Fiscal Policy* 245

*Overall Budgets* 247

*Macro Finance Insight 10.1: The Odd Accounting for Budget Deficits* 248

*Tax Revenues* 249

*Case Study 10.3: Revenue Sharing* 250

*Macro Finance Insight 10.2: Risk Pooling, Tax Sharing, and Conglomerates* 254

*Revenues in the United States* 255

*Summary on Revenues* 255

*Government Expenditures in the United States vs. China* 257

*Summary on Public Finance* 259

*Case Study 10.4: Global, Multinational, or Transnational Structure* 260

*Case Study 10.5: China’s Fapiao* 262

*Fiscal and Monetary Policy in Action* 262
Contents  xvii

Macro Finance Insight 10.3: Growth Cycles vs. Business Cycles  263
Policy Responses  266
Similarities and Differences in the Policy Response to the Global Financial Crisis  266
Challenging Questions for China (and the Student): Chapter 10  268
Notes  268
References  269

Appendix A Gross Domestic Product for China in Nominal RMB  271
Appendix B Gross Domestic Product at Constant Prices for China  273
Appendix C Gross Domestic Product by Expenditure Approach for China  275
Appendix D Fixed-Base Price Indices for China  277
Appendix E Useful Web sites Related to China’s Economy and Financial Sector  279
Index  281
About the Author  290