

# Contents

**Acknowledgments — VII**

**About the Author — IX**

**Preface — XI**

## **Chapter 1**

**Introduction to Global Macroeconomics — 1**

**The Basics — 1**

Three Major Macroeconomic Markets — 3

Business Uses of Macroeconomic Analyses — 5

Macroeconomic Analysis for Economists and Policymakers — 7

Let's Begin! — 8

**The Rest of the Story — 8**

Four Major Business Planning Documents — 8

Conclusion — 10

Key Points — 11

Review Questions — 11

Discussion Questions — 12

## **Chapter 2**

**Taking an Economic Pulse — 13**

**The Basics — 13**

Nominal Gross Domestic Product — 13

Shortcomings of GDP as a Measure of Economic Health — 16

Circular Flow Diagram — 17

Macroeconomic Equilibrium — 25

**The Rest of the Story — 27**

A Second Way to View Macroeconomic Equilibrium — 27

Using the Circular Flow to Explain Recessions — 29

How Do Governments Actually Calculate GDP and GDI? — 31

Gross National Product — 34

Underground Economies — 36

Conclusion — 38

Key Points — 38

Review Questions — 39

Discussion Questions — 41

**Chapter 3**

**Labor Market Conditions — 43**

**The Basics — 44**

Who Uses Labor Market Information? — 44

Measuring Employment and Unemployment — 46

Four Types of Unemployment — 51

Strengths and Weaknesses of Labor Market Measures — 55

Final Comments on Interpreting Unemployment Rate and  
Employment-to-Population Ratio — 59

**The Rest of the Story — 60**

Other Labor Market Measures — 60

If Only I Could Be a Fly on the Wall — 63

Natural Rate of Unemployment — 65

Outsourcing, Offshoring, and Reshoring — 66

Conclusion — 71

Key Points — 72

Review Questions — 74

Discussion Questions — 74

**Chapter 4**

**Inflation and Real GDP — 77**

**The Basics — 77**

What Is Inflation? — 77

Inflation Measures — 79

What Is Price Stability? — 82

Real Versus Nominal GDP — 83

**The Rest of the Story — 85**

Weaknesses of the CPI — 85

Conclusion — 88

Key Points — 89

Review Questions — 90

Discussion Question — 90

**Chapter 5**

**Inflation: Who Wins, and Who Loses? — 91**

**The Basics — 91**

Inflation Diminishes Purchasing Power — 91

Framing the Inflation Issue — 92

Debtors Versus Creditors —	94
Businesses Versus Workers —	99
Governments Versus Taxpayers —	100
Does Inflation Hurt Retirees? —	101
Does Inflation Hurt the Nation as a Whole? —	102
The Rest of the Story —	104
Indexation —	104
How to Profit from a Negative Real Interest Rate —	106
Calculating Nominal Interest Rates with the Precise Formula —	107
Estimating Market Expectations about Future Inflation —	108
Inflation and the Cost of Higher Education —	110
Conclusion —	111
Key Terms —	111
Review Questions —	112
Discussion Questions —	113

## Chapter 6

### Monetary Aggregates — 115

#### The Basics — 115

Commodity Money Versus Fiat Money —	115
Functions of Money —	117
Why Do Nations Measure Their Money Supplies? —	118
Monetary Aggregates —	120

#### The Rest of the Story — 126

U.S. Monetary Aggregates —	126
Financial Assets Included in the U.S. M1 and M2 Money Supplies —	128
Conclusion —	131
Key Points —	131
Review Questions —	132
Discussion Questions —	133

## Chapter 7

### Financial Intermediation — 135

#### The Basics — 135

Financial Intermediaries —	135
Overview of a Typical Bank's Balance Sheet —	139
Check Clearing —	146

#### The Rest of the Story — 149

Financial Disintermediation —	149
International Check Clearing —	152

Check Clearing and Company Cash Management —	153
Causes of Bank Failures —	155
Conclusion —	157
Key Points —	158
Review Questions —	159
Discussion Questions —	160

## **Chapter 8**

### **Money Creation — 161**

#### **The Basics — 161**

Creation of Money by a Single Bank — 161

Money Creation by the Banking System — 171

#### **The Rest of the Story — 178**

Preferred Asset Ratios and the M1 and M2 Money Multipliers — 178

Conclusion — 187

Key Points — 187

Review Questions — 188

Discussion Questions — 191

## **Chapter 9**

### **Central Banks — 193**

#### **The Basics — 193**

Financial Regulation Versus Monetary Policy — 193

$M2 \equiv M2 \text{ Money Multiplier} \times \text{Monetary Base}$  — 194

Guideline #1: Above the Line/Below the Line — 195

Monetary Tools of the Central Bank — 199

Monetary Tools in Action — 213

Lags in Monetary Policy — 214

Summary of “The Basics” — 215

#### **The Rest of the Story — 216**

Central Banking: A Balance Sheet View — 216

Can a Central Bank Become Insolvent? — 222

Macroprudential Regulations — 223

Monetary Policy Targets — 224

Monetary Effects of Central Bank Foreign Exchange Market

Intervention — 230

Central Banks Around the World — 234

Conclusion — 237

Key Points — 238

Review Questions —	240
Discussion Questions —	241

## **Chapter 10**

### **Real Credit Markets — 243**

#### **The Basics — 243**

Clarifying Financial Markets —	243
Inverse Relationship Between Debt Prices and Interest Yield —	245
Cost of Real Credit —	245
Determining Credit's Real Cost and Quantity Per Period —	251
Shifts in the Supply and Demand for Real Credit —	257
Real Credit Market Examples —	266

#### **The Rest of the Story — 273**

Can Central Banks Set Interest Rates? —	273
Conclusion —	275
Key Points —	276
Review Questions —	278
Discussion Questions —	279

## **Chapter 11**

### **The Economics of Cryptocurrencies — 281**

#### **The Basics — 281**

Legal Tender, Fiat, Digital, and Cryptocurrencies —	281
Buying, Selling, and Using Cryptocurrencies —	283
Blockchain, Altcoins, and Enterprise Distributed Ledger Technology —	286
Cryptocurrency Exchange Rate Determination —	288
Cryptocurrencies and Monetary Policies —	291
Taxation and Government Regulation —	293
Are Cryptocurrencies "Money"? —	294
National and Central Bank Digital Currencies —	299
The Future of Cryptocurrencies —	302

#### **The Rest of the Story — 304**

Bitcoin —	304
Conclusion —	307
Key Points —	309
Review Questions —	310
Discussion Questions —	310

**Chapter 12**

**Real Goods and Services Markets — 313**

**The Basics — 313**

Aggregate Supply Curve — 313

Aggregate Demand Curve — 322

Macroeconomic Equilibrium — 328

Don't Confuse Price Level Increases with Increasing Inflation — 330

Spending Multiplier — 331

Applications — 336

**The Rest of the Story — 340**

Demand Pull, Cost Push, and Spiral Inflation — 340

Short-Run Phillips Curve — 344

Hyperinflation and Deflation — 346

Actual Quantity Supplied Always Equals Actual Quantity

Demanded — 350

Why Does a Nation's Aggregate Demand Slope Downward? — 352

Conclusion — 356

Key Points — 358

Review Questions — 359

Discussion Questions — 361

**Chapter 13**

**Fiscal Policy — 363**

**The Basics — 364**

What Is Fiscal Policy? — 364

Taxes and Other Sources of Government Revenues — 365

Government Deficits, Surpluses, and Debts — 366

The Fiscal Multiplier, Crowding-Out, and Crowding-In — 373

Government Surpluses — 377

Automatic Stabilizers — 378

Fiscal Policy in Action — 380

Lags in Fiscal Policy — 381

Monetary Effects of Fiscal Policy — 382

**The Rest of the Story — 384**

Putting Government Debt into Perspective — 384

A Closer Look at Monetary Effects of Fiscal Policy — 387

Greece: Consequences of a Misestimated Fiscal Multiplier — 391

Structural Versus Cyclical Deficits and Surpluses — 392

Crowding-Out: When Is It Complete, Nonexistent, or Partial? — 400

Conclusion — 403

Key Points —	404
Review Questions —	405
Discussion Questions —	406

## **Chapter 14**

### **Business Cycles — 409**

#### **The Basics — 409**

What Are Business Cycles? —	409
How Are Business Cycles Measured? —	409
What Causes Business Cycles? —	411

#### **The Rest of the Story — 415**

U.S. Business Cycles —	415
U.S. Business Cycles from 1947 to 2019 —	417
Conclusion —	422
Key Points —	423
Review Questions —	423
Discussion Question —	424

## **Chapter 15**

### **Foreign Exchange Basics — 425**

#### **The Basics — 425**

Exchange Rates —	425
The Foreign Exchange Market —	427
Participants in the Foreign Exchange Market —	432
Checking Accounts Never Leave the Country —	436
Spot Foreign Exchange Market —	438

#### **The Rest of the Story — 439**

Understanding Spot Foreign Exchange Quotations —	439
Buying and Selling Foreign Exchange: Bid and Ask Rates —	440
The Major Segments of the Foreign Exchange Market —	444
Conclusion —	446
Key Points —	447
Review Questions —	448
Discussion Question —	449

## **Chapter 16**

### **Foreign Exchange Markets — 451**

#### **The Basics — 451**

Measuring a Currency's Value —	451
Bilateral Versus Effective Exchange Rates —	452

Nominal Versus Real Exchange Rates —	453
How Are Exchange Rates Determined? —	461
What Causes Exchange Rates to Change? —	471
The Rest of the Story —	482
International Exchange Rate Systems —	482
To Fix or Not to Fix, That is the Question —	486
What Is the European Monetary Union? —	489
Should There Be One Global Currency? —	490
Conclusion —	492
Key Points —	493
Review Questions —	495
Discussion Questions —	496
 <b>Chapter 17</b>	
<b>Balance of Payments —</b>	<b>499</b>
The Basics —	499
What Is the Balance of Payments? —	499
Major Parts of the Balance of Payments —	500
Balance of Payments Identity —	510
Net Export Identity —	511
The Rest of the Story —	517
Balance of Payments Measures —	517
Are Current Account Deficits Harmful or Beneficial? —	521
Frequently Asked Questions about the Balance of Payments —	524
The Balance of Payments and Double-Entry Bookkeeping —	525
Understanding IMF Balance of Payments Reports —	528
Conclusion —	535
Key Points —	536
Review Questions —	537
Discussion Questions —	542
 <b>Chapter 18</b>	
<b>Putting It All Together —</b>	<b>543</b>
The Basics —	543
The Three-Sector Model and Common Sense —	543
Integrating Macroeconomic Markets —	545
Conclusion —	559
Key Points —	560
Review Questions —	561



**Chapter 19****Shocks to Nations with Flexible Exchange Rates — 563****The Basics — 563**

Effects of Expansionary Fiscal Policy — 563

Effects of Expansionary Monetary Policy — 585

**The Rest of the Story — 598**

Feedback Effects in the Three-Sector Model — 598

A Second Look at Expansionary Fiscal Policy with Low Mobility

International Capital Markets — 602

Conclusion — 603

Key Points — 604

Review Questions — 605

Discussion Questions — 611

**Chapter 20****Shocks to Nations with Fixed Exchange Rates — 615****The Basics — 615**

Why Do Nations Choose Fixed Exchange Rates? — 615

How Do Nations Fix Their Exchange Rates? — 617

Effects of Expansionary Fiscal Policy — 623

Effects of Expansionary Monetary Policy — 639

**The Rest of the Story — 647**

Balance of Payments Accounting and Central Bank Intervention — 647

Conclusion — 652

Key Points — 653

Review Questions — 653

Discussion Questions — 657

**Chapter 21****Causes, Cures, and Consequences of the Great Recession — 659****The Basics — 661**

Measures of Economic Devastation — 661

U.S. Housing Market and the Great Recession — 662

Fixing the Credit and Goods and Services Markets — 676

Wall Street Reform and Consumer Protection Act — 685

More Than a Decade Later, Is Our Financial System Safer? — 687

Were U.S. Monetary and Fiscal Policies Effective? — 689

Did the Bailout Earn the U.S. Government a Return? — 689

The Next Financial Crisis — 690

Paradoxes of the Great Recession —	690
Conclusion —	697
The Rest of the Story —	698
Fannie Mae and Freddie Mac —	698
Securitization: From Mortgage Origination to Security Sales —	701
Using Taxpayer Money to Bail Out the Rich —	704
Chronology of Major Events: 2007–2009 —	704
Acts That Deregulated the U.S. Financial Industry —	707
Abridged Chronology of U.S. Government Actions: 2007–2009 —	708
Abridged Chronology of Federal Reserve and Federal Deposit Insurance Corporation Actions: 2007–2009 —	710
Key Points —	711
Review Questions —	712
Discussion Questions —	713

## **Chapter 22**

### **Long-Term Growth and Development — 715**

#### **The Basics — 715**

Scenario Planning —	715
Economic Growth and Development —	716
Economic Growth and the Importance of Compounding —	722
Government's Role in Economic Development —	723
Comparative Advantage —	725

#### **The Rest of the Story — 732**

A Country Is Not a Company —	732
Conclusion —	737
Key Points —	739
Review Questions —	740
Discussion Question —	741

## **Chapter 23**

### **Long-Term Inflation, Exchange Rates, and Unemployment — 743**

#### **The Basics — 744**

Phillips Curve and the Natural-Rate Hypothesis —	744
Equation of Exchange —	753
Monetarism and the Quantity Theory of Money —	756
Long-Term Changes in Exchange Rates —	764
Linking Purchasing Power Parity Theory and Quantity Theory of Money —	769

#### **The Rest of the Story — 771**

How Well Does PPP Predict Exchange Rates? — **771**  
Income Velocity Versus Transactions Velocity — **774**  
Conclusion — **775**  
Key Points — **777**  
Review Questions — **778**  
Discussion Questions — **780**

**Appendix A List of Abbreviations — 781**

**Appendix B Important Terms and Concepts — 785**

**Index — 791**