

The Financial System in the Economy

Peter S. Rose



The Financial System in the Economy

Peter S. Rose

Texas A & M University

1986



Special Edition for The American College

To My Family

This is a special reprint of *Money and Capital Markets: The Financial System in the Economy*, second edition. It was prepared especially for The American College in Bryn Mawr, Pennsylvania. This special reprint is not intended for use other than by The American College. Other colleges and training programs may contact Business Publications, Inc., 1700 Alma Road, Plano, Texas 75075, to order the standard classroom edition.

© BUSINESS PUBLICATIONS, INC., 1983, 1986

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher.

ISBN 1-55623-007-4

Library of Congress Catalog Card No. 85-72821

Printed in the United States of America

2 3 4 5 6 7 8 9 0 K 3 2 1 0 9 8

PREFACE

As in the first edition, this book is an attempt at a comprehensive analysis of the American financial system and of the major financial markets that make up that system. The financial system of the United States is certainly one of the world's great wonders—the envy of many less well-endowed nations. But it is also a very complex institution—fully understood by few, yet vital to all. As the first chapter of this new edition sets out, the system of financial markets performs several indispensable functions (roles) in a modern market-oriented economy. It provides a profitable and relatively low-risk outlet for the public's savings. Equally important, the financial system generates a continuing supply of credit for businesses, consumers, and governments to fuel both consumption and investment spending. It offers a means to store purchasing power for the future as well as means to raise immediately spendable funds by liquidating stocks, bonds, and other financial assets. The system of financial markets offers services that protect people and property against risk and provides a means to make payments for desired purchases of goods and services. Finally, the financial system offers a channel for the pursuit of government policies designed to move the nation closer to its broad economic goals of full employment, the avoidance of severe inflation, sustainable economic growth, and stability in the nation's international payments position.

Neither the roles of the financial system nor the nation's broad economic goals are easy to accomplish. Indeed, both the American and the global financial systems have many problems today, especially in their efforts to handle huge volumes of government debt, increasingly intense competition for financial services that readily cuts across national boundaries, deregulation of the financial sector with accompanying increases in uncertainty and risk, and a recent dramatic increase in failures among major financial institutions (particularly among banks, thrift institutions, and securities dealers). Perhaps the greatest challenge faced by modern financial systems is whether they can continue to perform their essential functions effectively even if there is a gradual erosion of public confidence in the viability and stability of important financial institutions. For without a strong consensus of public confidence and active participation from businesses, households, and governments at all levels, the financial system will begin to contract on itself, eroding its efficiency until it can no longer perform effectively its vital roles in the economy. Indeed, public confidence *is* the foundation stone upon which all financial systems are built and, without which, they cannot long survive—a truism that we will return to again and again in the pages of this book.

It is always incumbent upon an author to explain how this new edition differs from the one that preceded it. There is one *new* chapter in this edition—Chapter 11, which deals with the forecasting and hedging of interest rates in today's volatile and risk-laden economy. In addition, the sequence of chapters and of material within selected chapters has been altered in order to improve the logical flow of the book. For example, the reader familiar with the first edition will note that the original Chapter 10, Sources of Information for Financial Decision Making, has been moved forward into Part One of this new edition. This was done so that readers of the book will become aware at an early stage about where much of the data about the financial system (such as the vital Flow of Funds Accounts) comes from and how that data is assembled and used.

Changes in content and format appear in all 29 chapters of this new edition. For example, each chapter now contains an introductory information section, explaining to the reader the purpose of that chapter and giving a list of key terms and concepts to watch for in digesting the material. Homework problems now appear at the end of many of the chapters, along with the familiar study questions, to help the reader review the most relevant material. In the narrative portion of all the chapters, figures and charts have been updated to the latest available information as this new edition went to press.

New topics and concepts of special importance in today's financial system have been added throughout the text. For example, new material addresses the wider use of options and hedging strategies by major institutional investors in the money and capital markets. There is a more complete treatment of the characteristics of money market funds and of their potent impact on the sources and uses of funds by deposit-type financial institutions. Discussion of the role of important financial institutions considered in the first edition has been expanded here—especially the discussions of security dealers, investment banks, mortgage banks, real estate investment trusts, leasing companies, and financial conglomerates (symbiotics), such as Sears, Roebuck & Company and Prudential-Bache. The unfolding theory of rational expectations is an important new addition to the review of interest-rate theories in Chapter 7. An expanded discussion of the theory and concepts dealing with the inflation/interest-rate linkage and the yield curve have been added to Chapter 9. This chapter also contains a new section on duration and its uses.

There are more numerical examples throughout the book, such as explicit calculation of after-tax yields to maturity, yields on callable securities, real interest rates, and the mathematics of compound interest. New developments in each major financial market, including the appearance of new financial instruments, have been added where relevant to the flow and development of ideas. A good example is Chapter 18 where several important consumer-oriented financial services—Super NOWs,

money market deposit accounts (MMDAs), universal life insurance policies, IRAs and Keoghs, and cash-management services—have been added to that chapter's discussion of the latest developments in the consumer market. Other new topics and concepts include consumer bankruptcy laws, inflation-hedged bonds, leveraged buyouts, currency futures, tax reform proposals, contemporaneous reserve accounting, shelf registrations, IS-LM analysis, new money-supply definitions, and the recent "ir-relevance" controversy over the effects of government debt and government borrowing.

The new Chapter 11, dealing with interest-rate patterns, forecasting, and hedging, begins by exploring well-established patterns in market interest rates over time—patterns that any student of the financial system needs to know well. The analysis focuses initially on the importance of business-cycle fluctuations and seasonal factors in shaping movements in interest rates and security prices. Then the key benefits and problems in interest-rate forecasting are noted, followed by a step-by-step review of several widely used rate forecasting approaches (e.g., analysis of money-supply changes, econometric models, the Flow-of-Funds approach, and implied market forecasts). Due to the inherent difficulties of interest-rate forecasting many economists and financial analysts have turned to *hedging* strategies in order to insulate financial transactions from interest-rate fluctuations. The new chapter discusses four major rate-hedging devices—duration, GAP management (interest-sensitivity analysis), financial futures contracts, and interest-rate SWAPs—and how they might be used to deal with the dynamic and often treacherous character of modern financial trading.

As with the first edition, a book of the scope and size of this one has benefited from the criticisms, ideas, and information provided by many financial experts and institutions. The author is indebted especially to James C. Baker of Kent State University, Ivan T. Call of Brigham Young University, Eugene F. Drzycimski of the University of Wisconsin, Mona J. Gardner of Illinois State University, Timothy Koch of Texas Tech, David J. Leahigh of Lehigh University, Paul Leonard of Union College, Dixie Mills of Illinois State University, John P. Olienyk of Colorado State University, Coleen C. Pantalone of Northeastern University, and Richard Rivard of the University of South Florida for their review of the entire manuscript and for numerous suggestions to improve it. Organizations graciously providing reprint material or data for the book included the *Canadian Banker*, official publication of the Canadian Bankers' Association, the American Council of Life Insurance, the Chicago Board of Trade, the Insurance Information Institute, the Credit Union National Association, Dun & Bradstreet, Inc., Moody's Investor Service, the United States League of Savings Associations, the First Boston Corporation, Dow Jones Reprints, and Standard & Poor's Corporation. The author also is grateful

to his family, especially to his wife Kandy Beth, for their patience and encouragement in completing this second edition. As always, however, the errors and deficiencies that remain, along with the personal opinions that appear from time to time in the pages of this book, are the responsibility of the author alone.

Peter S. Rose

CONTENTS

Part One

The Financial System in Perspective

1

1 The Role of the Financial System in the Economy 3

The Economy and the Financial System, 4 *Flows within the Economic System. The Role of Markets in the Economic System. Types of Markets. The Financial Markets and the Financial System.* Functions Performed by the Financial System and the Financial Markets, 10 *Savings Function. Wealth Function. Liquidity Function. Credit Function. Payments Function. Risk Function. Policy Function.* Types of Financial Markets within the Financial System, 14 *The Money Market versus the Capital Market. Divisions of the Money and Capital Markets. Open versus Negotiated Markets. Primary versus Secondary Markets. Spot versus Futures and Forward Markets. Factors Tying All Financial Markets Together.* The Plan of this Book, 21 Study Questions, 24 Selected References, 25

2 Financial Assets, Money, and Financial Transactions 26

The Creation of Financial Assets, 27 *Characteristics of Financial Assets. Different Kinds of Financial Assets. The Creation Process for Financial Assets.* Financial Assets and the Financial System, 33 Lending and Borrowing in the Financial System, 35 Money As a Financial Asset, 38 *What is Money? The Functions of Money.* Types of Financial Transactions, 40 *Direct Finance. Semidirect Finance. Indirect Finance.* Relative Size and Importance of Major Financial Institutions, 44 Classification of Financial Institutions, 46 Portfolio Decisions by Financial Intermediaries and Other Financial Institutions, 46 Disintermediation of Funds, 48 Conclusions, 49 Study Questions, 49 Selected References, 50

3 Sources of Information for Financial Decision Making in the Money and Capital Markets 51

Debt Security Prices and Yields, 53 Stock Prices and Dividend Yields, 57 Information on Security Issuers, 62 General Economic and Financial Conditions, 66 Social Accounting Data, 67 *National Income Accounts. The Flow of Funds Accounts.* Conclusions, 81 Study Questions, 82 Problems, 82 Selected References, 84

Part Two	
Financial Institutions in the Financial System	85
4 Commercial Banks and Money Creation	87
The Structure of U.S. Commercial Banking, 88 <i>A Trend toward Consolidation. Branch Banking. Bank Holding Companies. International Banking. Bank Failures. Changing Technology. The Regulatory Framework for Banks, 97 The Federal Reserve System. The Comptroller of the Currency. Federal Deposit Insurance Corporation. State Banking Commissions. Portfolio Characteristics of Commercial Banks, 101 Cash and Due from Banks (Primary Reserves). Security Holdings and Secondary Reserves. Loans. Deposits. Nondeposit Sources of Funds. Equity Capital. Revenues and Expenses. Money Creation and Destruction by Banks, 111 Reserve Requirements and Excess Reserves. The Creation of Money and Credit. Destruction of Deposits and Reserves. Implications of Money Creation and Destruction. Summary and Conclusions, 117 Study Questions, 118 Problems, 118 Selected References, 119</i>	
5 Nonbank Thrift Institutions: Credit Unions, Savings and Loan Associations, Mutual Savings Banks, and Money Market Mutual Funds	121
Credit Unions, 123 <i>Growth of Credit Unions. Chartering and Regulation. Credit Union Membership. Size of Credit Unions. New Services Offered. Government Regulation of Loans, Investments, and Dividends. A Strong Competitive Force. Savings and Loan Associations, 130 Chartering and Regulation. How Funds Are Raised and Allocated. Trends in Revenues and Costs. Legal Interest-Rate Ceilings. Trends in Industry Structure. Possible Remedies for the Industry's Problems. Mutual Savings Banks, 136 Number and Distribution of Savings Banks. Charters and Regulations. How Funds Are Raised and Allocated. Current Trends and Future Problems. Money Market Funds, 140 Summary and Conclusions, 143 Study Questions, 144 Selected References, 145</i>	
6 Insurance Companies, Pension Funds, and Other Financial Institutions	146
Life Insurance Companies, 147 <i>The Insurance Principle. Investments of Life Insurance Companies. Sources of Life Insurance Company Funds. Regulating the Industry. Structure and Growth of the Life Insurance Industry. New Services. Property-Casualty Insurance Companies, 156 Makeup of the Property-Casualty Insurance Industry. Changing Risk Patterns in Property-Liability Coverage. Investments by Property-Casualty Companies. Sources of Income. Business Cycles, Inflation, and Competition. Pension Funds, 160 Growth of Pension Funds. Investment Strategies of Pension Funds. Pension Fund Assets. Factors Affecting the Growth of Pension Funds in the Years Ahead. Finance Companies, 165 Different Finance Companies for</i>	

Different Purposes. Growth of Finance Companies. Methods of Industry Financing. Recent Changes in the Character of the Finance Company Industry. Investment Companies, 169 The Background of Investment Companies. Regulation of Investment Companies. Tax Status of the Industry. Open-End and Closed-End Investment Companies. Goals and Earnings of Investment Companies. Other Financial Institutions, 174 Trends Affecting All Financial Institutions Today, 177 Study Questions, 178 Problems, 179 Selected References, 180

Part Three

Interest Rates and Security Prices

181

7 Interest Rates in the Financial System

183

Functions of the Rate of Interest in the Economy, 184 The Classical Theory of Interest Rates, 185 *Saving by Households. Saving by Business Firms. Saving by Government. The Demand for Investment Funds. The Equilibrium Rate of Interest in the Classical Theory of Interest. Limitations of the Classical Theory of Interest. The Liquidity Preference Theory, 195 The Demand for Liquidity. The Supply of Money. The Equilibrium Rate of Interest in Liquidity Preference Theory. Limitations of the Liquidity Preference Theory. The Loanable Funds Theory, 201 Consumer Demand for Loanable Funds. Business Demand for Loanable Funds. Government Demand for Loanable Funds. Total Demand for Loanable Funds. The Supply of Loanable Funds. The Equilibrium Rate of Interest in the Loanable Funds Theory. The Rational Expectations Theory, 207 Conclusions, 211 Study Questions, 212 Problems, 213 Selected References, 214*

8 Relationships between Interest Rates and Security Prices

216

Units of Measurement for Interest Rates and Security Prices, 217 *Definition of Interest Rates. Basis Points. Security Prices. Measures of the Rate of Return, or Yield, on a Loan or Security, 219 Coupon Rate. Current Yield. Yield to Maturity. Holding-Period Yield. Calculating Yields to Maturity and Holding-Period Yields. Yield-Price Relationships, 227 Interest Rates Charged by Institutional Lenders, 230 The Simple-Interest Method. Add-On Rate of Interest. Discount Method. Annual Percentage Rate (APR). Compound Interest. Conclusions, 235 Study Questions, 235 Problems, 236 Selected References, 237*

9 Inflation and Yield Curves

238

Inflation and Interest Rates, 239 *The Correlation between Inflation and Interest Rates. The Nominal and Real Interest Rate. The Fisher Effect. Alternative Views on Inflation and Interest Rates. The Maturity of a Loan, 247 The Yield Curve and the Term Structure of Interest Rates. Types of Yield Curves. The Expectations Hypothesis. The Role of Expectations in Shaping the Yield Curve. Relative Changes in Long-Term Interest Rates. Policy Impli-*

cations of the Expectations Hypothesis. The Liquidity Premium View of the Yield Curve. The Segmented-Markets or Hedging-Pressure Argument. Policy Implications of the Segmented-Markets Theory. The Preferred Habitat or Composite Theory of the Yield Curve. Research Evidence on Yield-Curve Theories. Uses of the Yield Curve. Duration: A Different Approach to Maturity, 260 The Price Elasticity of a Debt Security. The Impact of Varying Coupon Rates. An Alternative Maturity Index for a Security: Duration. Uses of Duration. Summary and Conclusions, 265 Study Questions, 266 Problems, 267 Selected References, 268

10 Marketability, Default Risk, Call Privileges, Taxes, and Other Factors Affecting Interest Rates 270

Marketability, 271 Default Risk and Interest Rates, 272 The Premium for Default Risk. The Expected Rate of Return or Yield on a Risky Security. Anticipated Loss and Default-Risk Premiums. Factors Influencing Default-Risk Premiums. Call Privileges, 278 Calculating the Yields on Called Securities. Advantages and Disadvantages of the Call Privilege. The Call Premium and Interest-Rate Expectations. Research Evidence. Effect of Coupon Rates on Call Risk. Taxation of Security Returns, 282 The Tax Treatment of Capital Gains. Tax-Exempt Securities. Convertible Securities, 289 Summary and Conclusions, 291 Study Questions, 293 Problems, 294 Selected References, 295

11 Interest-Rate Patterns, Forecasting, and Hedging in a Dynamic Economy 297

The Influence of the Business Cycle in Shaping Interest Rates, 298 Relative Movements in Short-and Long-Term Interest Rates and Security Prices over the Business Cycle. Seasonality, 302 Forecasting Interest Rates: Advantages and Problems, 303 Advantages of Rate Forecasting. Problems in Forecasting Interest Rates. Approaches to Modern Interest-Rate Forecasting, 304 Money-Supply Approaches. Inflation and the Fisher Effect. Econometric Models. The Flow of Funds Accounts as a Source of Forecasting Information. Following the Forward Calendar of New Security Offerings. Market Expectations and Rate Forecasting. The Consensus Forecast. Interest-Rate Hedging Strategies, 319 Duration. GAP Management. Financial Futures Contracts. Interest-Rate SWAP's. Summary and Conclusions, 322 Study Questions, 323 Problems, 324 Selected References, 325

Part Four

The Money Market

327

12 Characteristics of the Money Market 329

Characteristics of the Money Market, 330 The Need for a Money Market. Borrowers and Lenders in the Money Market. The Goals of Money Market

Investors. Types of Investment Risk. Money Market Maturities. Depth and Breadth of the Money Market. Federal Funds versus Clearinghouse Funds. A Market for Large Borrowers and Lenders. The Volume of Money Market Securities, 338 The Pattern of Interest Rates in the Money Market, 340 Summary and Conclusions, 342 Study Questions, 343 Problems, 344 Selected References, 344

13 Treasury Bills, Dealer Loans, and Repurchase Agreements 345

U.S. Treasury Bills, 346 Volume of Bills Outstanding. Types of Treasury Bills. How Bills Are Sold. Results of a Recent Bill Auction. Calculating the Yield on Bills. Market Interest Rates on Treasury Bills. Investor's in Treasury Bills. Dealer Loans and Repurchase Agreements, 355 Repurchase Agreements. Sources of Dealer Income. Dealer Positions in Securities. Sources of Dealer Financing. Dealer Transactions. Conclusions, 362 Study Questions, 363 Problems, 364 Selected References, 364

14 Federal Funds, Negotiable CDs, and Loans from the Discount Window 365

Federal Funds, 367 The Nature of Federal Funds. Use of the Federal Funds Market to Meet Reserve Requirements. Mechanics of Federal Funds Trading. Volume of Borrowings in the Funds Market. Rates on Federal Funds. Federal Funds and Government Policy. Negotiable Certificates of Deposit, 373 Growth of CDs. Terms Attached to CDs. Buyers of CDs. CDs in Liability Management. New Types of CDs. Loans from the Federal Reserve's Discount Window, 378 Causes and Effects of Borrowing from the Discount Window. Collateral for Discount-Window Loans. Restrictions on Federal Reserve Credit. The Federal Reserve's Discount Rate. A Concluding Comment on Bank Activity in the Money Market, 381 Study Questions, 383 Problems, 384 Selected References, 385

15 Commercial Paper and Federal Agency Securities 386

Commercial Paper, 387 What Is Commercial Paper? Types of Commercial Paper. Recent Growth of Commercial Paper. Maturities of Commercial Paper. Changing Yields on Paper Issues. Advantages of Issuing Commercial Paper. Possible Disadvantages of Issuing Commercial Paper. Principal Investors. Commercial Paper Ratings. Dealers in Paper. Federal Agency Securities, 395 Types of Federal Credit Agencies. Growth of the Agency Market. Terms on Agency Securities. The Marketing of Agency Issues. Summary and Conclusions, 401 Study Questions, 402 Problems, 402 Selected References, 403

16 International Money Market Instruments: Bankers' Acceptances and Eurodollars 404

Bankers' Acceptances, 405 Why Acceptances Are Used in International Trade. How Acceptances Arise. Recent Growth of Acceptance Financing. Acceptance Rates. Investors in Acceptances. Eurodollars, 412 What Is a Eurodollar? The Creation of Eurodollars. Eurodollar Maturities and Risks.

The Supply of Eurodollars. Eurodollars in Domestic Bank Operations. Benefits and Costs of the Eurodollar Market. Conclusions, 423 Study Questions, 424 Problems, 425 Selected References, 426

17 The Financial Futures Market 428

The Nature of Futures Trading, 429 General Principles of Hedging, 430 Opening and Closing a Hedge. Why Hedging Can Be Effective. Risk Selection through Hedging. Financial Futures, 433 The Purpose of Trading in Financial Futures. Securities Used in Financial Futures Contracts, 436 U.S. Treasury Bonds and Notes. U.S. Treasury Bills. GNMA Mortgage Pass-Through or Mortgage-Backed Securities. Ninety-Day Commercial Paper. Bank Certificates of Deposit and Eurodollars. Stock Index Futures. Types of Hedging in the Financial Futures Market, 441 The Long (or Buying) Hedge. The Short (or Selling) Hedge. Cross Hedging. Mechanics of Futures Trading, 445 Traders Active in the Futures Market, 446 Potential Benefits to Financial Institutions from the Futures Market, 448 Social Consequences of the Futures Market, 449 Summary and Conclusions, 451 Study Questions, 452 Problems, 452 Selected References, 453

Part Five

The Consumer in the Financial Markets 455

18 Consumer Lending and Borrowing 457

Consumers as Lenders of Funds, 458 Financial Assets Purchased by Consumers. The Growing Menu of Savings Instruments Available to Consumers Today. Consumers as Borrowers of Funds, 464 Is Con-Borrowing Excessive? Categories of Consumer Borrowing. Credit and Debit Cards, 468 Credit Cards. Debit Cards. The Determinants of Consumer Borrowing, 470 Consumer Lending Institutions, 472 Commercial Banks. Finance Companies. Other Consumer Lending Institutions. Factors Considered in Making Consumer Loans, 475 Financial Disclosure and Consumer Credit, 477 Truth in Lending. Fair Credit Billing Act. Fair Credit Reporting Act. Consumer Leasing Act. Credit Discrimination Laws, 480 Community Reinvestment Act. Equal Credit Opportunity Act. Fair Housing and Home Mortgage Disclosure Act. Consumer Bankruptcy Laws, 482 Summary and Conclusions, 483 Study Questions, 485 Selected References, 486

19 The Residential Mortgage Market 488

Recent Trends in New Home Prices and the Terms of Mortgage Loans, 489 The Structure of the Mortgage Market, 492 Volume of Mortgage Loans. Residential versus Nonresidential Mortgage Loans. Mortgage-Lending Institutions, 494 The Roles Played by Financial Institutions in the Mortgage Market, 496 Savings and Loan Associations. Commercial Banks. Life Insurance Companies. Mutual Savings Banks. Mortgage Bankers. Govern-

ment Activity. The Impact of the Great Depression on Government Involvement in the Mortgage Market. The Creation of Fannie Mae (FNMA). The Creation of Ginnie Mae (GNMA) The Federal Home Loan Mortgage Corporation (FHLMC). Remaining Problems in Developing a Secondary Market for Mortgages. Sensitivity of the Mortgage Market to Monetary Policy and Credit Conditions, 506 Innovations in Mortgage Instruments, 507 Variable-Rate and Other Adjustable Mortgages. Canadian Rollover and Other Renegotiated Mortgage Loans. Reverse-Annuity Mortgages. Graduated-Payment Mortgages. Epilogue on the Fixed-Rate Mortgage. Creative Financing Techniques, 512 Second Mortgages. Home-Leasing Plans. Land-Leasing Plans and Property Exchanges. Assumption of Old Mortgages and Wraparound Financing. The Message of Creative Financing Techniques. Summary and Conclusions, 514 Study Questions, 517 Selected References, 518

Part Six

Businesses in the Financial Markets

521

20 Business Borrowing in the Money and Capital Markets 523

Factors Affecting Business Activity in the Money and Capital Markets, 524 Characteristics of Corporate Notes and Bonds, 525 *Principal Features of Corporate Notes and Bonds. Term Bonds versus Serial Bonds. Recent Trends in Original Maturities of Bonds. Call Privileges. Sinking Fund and Refunding Provisions. Yields and Costs of Corporate Bonds. The Most Common Types of Corporate Bonds. Inflation-Hedged Securities—New Types of Corporate Bonds.* Investors in Corporate Notes and Bonds, 534 The Secondary Market for Corporate Bonds, 535 The Marketing of Corporate Notes and Bonds, 536 *The Public Sale of Bonds. Private Placements of Corporate Bonds.* The Volume of Borrowing in the Corporate Bond Market, 542 Bank Loans to Business, 544 *The Prime or Base Interest Rate. Commercial Mortgages, 548 Summary and Conclusions, 550 Study Questions, 551 Problems, 553 Selected References, 553*

21 Corporate Stock 555

Characteristics of Corporate Stock, 556 *Common Stock. Preferred Stock.* Stock Market Investors, 561 Characteristics of the Corporate Stock Market, 564 *The Major Organized Exchanges. The Informal Over-the-Counter Market. The Third Market: Trading in Listed Securities off the Exchange, 570 The Fourth Market: Direct Trading between Buyers and Sellers, 571 The Developing Market for Stock Options, 572 Call Options. Puts. Straddles. New Option Markets. Options and Stock Prices.* The Development of a Unified National Market for Stock, 576 Random Walk and Efficient Markets, 579 Summary and Conclusions, 583 Study Questions, 584 Selected References, 585

Part Seven

Government in the Financial Markets

587

22 Central Banking and the Role of the Federal Reserve 589

The Role of Central Banks in the Economy, 590 *Control of the Money Supply. Stabilizing the Money and Capital Markets. Lender of Last Resort. Maintaining and Improving the Payments Mechanism.* The Goals and Channels of Central Banking, 592 *The Channels through Which Central Banks Work.* The History of the Federal Reserve System, 596 *Problems in the Early U.S. Banking System. Problems Leading to Creation of the Federal Reserve System. The Early Structure of the Federal Reserve System. Goals and Policy Tools in the Early History of the Federal Reserve System.* How the FED is Organized, 602 *Board of Governors of the Federal Reserve System. The Federal Open Market Committee and Manager of the System Open Market Account. The Federal Reserve Banks. The Member Banks of the Fed's System.* Many Roles of the Federal Reserve System Today, 607 *The Clearing and Collection of Checks and Other Means of Payment. Issuing Currency and Coin and Providing Other Services. Maintaining a Sound Banking and Financial System. Serving as the Federal Government's Fiscal Agent. Carrying Out Monetary Policy. Providing Information to the Public.* Summary and Conclusions, 611 Study Questions, 612 Selected References, 613

23 The Tools of Monetary Policy 614

Reserves and Money—Targets of Federal Reserve Policy, 615 *The Composition of Reserves, 615 The Deposit Multiplier. The Money Multiplier.* General versus Selective Credit Controls, 621 *The General Credit Controls of the FED, 622 Reserve Requirements. Changes in the Federal Reserve's Discount Rate. Open-Market Operations.* Selective Credit Controls Used by the Fed, 637 *Moral Suasion by Federal Reserve Officials. Deposit Interest-Rate Ceilings. Margin Requirements.* Summary and Conclusions, 640 Study Questions, 642 Problems, 643 Selected References, 644

24 Indicators and Goals of Monetary Policy 645

Factors Influencing the Reserves of the Banking System, 647 *Actions of the Public Affecting Reserves. Operations of the Treasury and Foreign Investors Affecting Reserves. Federal Reserve Operations Affecting Reserves. The Heart of the Monetary Policy Process—Controlling Reserves.* The Federal Reserve Statement, 650 *Factors Supplying Reserves. Factors Absorbing Reserves. Interpreting the Federal Reserve Statement.* Measures of the Nation's Money Supply, 653 *Money-Supply Measures. Federal Reserve Control of Money-Supply Growth. Achieving the Fed's Money-Supply Targets.* Money Market Indicators, 661 *The Federal Funds Rate. Other Money Market Interest Rates. Free Reserves. Interpreting Money Market Indicators.* The Federal Reserve and National Economic Goals, 664 *The Goal of Controlling Infla-*

tion. The Goal of Full Employment. The Goal of Sustainable Economic Growth. Equilibrium in the U.S. Balance of Payments and Protecting the Dollar. What Policies Should We Pursue to Achieve the Nation's Economic Goals?, 671 *The Monetarist View. The Credit Availability, or Neo-Keynesian, View. Supply-Side Economics. The Trade-Offs among the Nation's Economic Goals*, 677 *The Limitations of Monetary Policy*, 677 *Study Questions*, 678 *Selected References*, 679

25 The Treasury in the Financial Markets 681

The Fiscal Policy Activities of the U.S. Treasury, 682 *Sources of Federal Government Funds. Federal Government Expenditures. Recent Tax and Expenditure Legislation. Tax Reform. Effects of Federal Borrowing and Budget Deficits on the Financial System and the Economy. Effects of the Retirement of Government Debt from a Budget Surplus on the Financial System and the Economy. Overall Impact of Government Borrowing and Spending. Management of the Federal Debt*, 696 *The Size and Growth of the Public Debt. The Composition of the Public Debt. Marketable Public Debt. Non-marketable Public Debt. Investors in U.S. Government Securities. A Trend toward Shorter Maturities. Methods of Offering Treasury Securities. The Goals of Federal Debt Management. The Impact of Federal Debt Management on the Financial Markets and the Economy. Summary and Conclusions*, 712 *Study Questions*, 713 *Problems*, 714 *Selected References*, 715

26 State and Local Governments in the Financial Markets 717

Growth of State and Local Government Borrowing, 718 *Sources of Revenue for State and Local Governments*, 720 *State and Local Government Expenditures. Motivations for State and Local Government Borrowing*, 725 *Uses of Borrowed Funds*, 725 *Types of Securities Issued by State and Local Governments*, 726 *Short-Term Securities. Long-Term Securities. Types of Revenue Bonds. Innovations in Municipal Securities. Types of Securities Issued by Different Governmental Units. Key Features of Municipal Debt*, 732 *Tax Exemption. Credit Ratings. Serialization. How Municipal Bonds are Marketed*, 738 *Problems in the Municipal Market*, 739 *Problems and Proposals Regarding Tax Exemption. California's Proposition 13. The Growing Burden of Local Taxes and Debt. Study Questions*, 742 *Selected References*, 744

Part Eight The International Financial System

745

27 The Balance of Payments and International Transactions 747

The Balance of Payments, 749 *The U.S. Balance of International Payments. The Current Account. The Capital Account. The Basic Balance. Cumulative Balance in International Accounts and Short-Term Capital Flows. Official*

Reserve Transactions. Disequilibrium in the Balance of Payments. Trends in the U.S. Balance of Payments. The Problem of Different Monetary Units in International Trade and Finance, 761 The Gold Standard. The Gold Exchange Standard. The Modified Exchange Standard. Abandonment of the Bretton Woods System. The Managed Floating Currency Standard. Determining Currency Values in the Modern World, 768 Pegging Exchange Rates. Special Drawing Rights. Floating Currency Values. The European Monetary System. Freedom and a Flexible Exchange-Rate System. Study Questions, 772 Selected References, 773

28 The Markets for Foreign Exchange 774

The Structure of the Foreign Exchange Market, 776 The Role of Banks in the Foreign Exchange Market. Foreign Exchange Brokers. Nonbank Financial Institutions. Instruments of the Foreign Exchange Market, 779 Cable Transfers. Mail Transfers. Bills of Exchange. Foreign Currency and Coin. Other Foreign Exchange Instruments. Foreign Exchange Rates, 781 Exchange Rate Quotations. Factors Affecting Foreign Exchange Rates. Supply and Demand for Foreign Exchange. Effects of Changes in the Relative Supply and Demand for Currencies. The Forward Market for Currencies, 790 Spot, Forward, and Option Contracts. Methods of Quoting Forward Exchange Rates. Functions of the Forward Exchange Market, 793 Commercial Covering. Hedging an Investment Position. Speculation on Future Currency Prices. Covered Interest Arbitrage. The Principle of Interest-Rate Parity. Trading Centers for Forward Exchange Contracts, 797 The Market for Foreign Currency Futures, 797 Government Intervention in the Foreign Exchange Markets, 800 U.S. Intervention in the Currency Markets during the 1960s. U.S. Foreign Exchange Policy during the 1970s. A Limited Intervention Policy for the 1980s. Study Questions, 804 Problems, 805 Selected References, 806

29 International Banking 807

The Scope of International Banking Activities, 808 Multinational Banking Corporations. Types of Facilities Operated by U.S. Banks Abroad. Growth of U.S. International Banking Activities. Services Offered by International Banks, 813 Issuing Letters of Credit (LC). Buying and Selling Foreign Exchange (FOREX). Issuing Bankers' Acceptances. Accepting Eurocurrency Deposits and Making Eurocurrency Loans. Assisting in the Marketing of Eurocurrency Bonds. Other Services Provided by International Banks. Smaller Banks Enter the International Field, 816 Foreign Banks in the United States, 817 Recent Growth of Foreign Banks in the United States. Types of Organizations Operated by Foreign Banks in the United States. Federal Regulation of Foreign Bank Activity. Foreign Banks and the International Banking Act of 1978. Regulation of the International Banking Activities of U.S. Banks, 822 Problems and the Future of International Banking, 823 The Risks of International Lending. Public Confidence and Bank Failures. Prospects and Issues in the 1980s, 828 Study Questions, 829 Selected References, 830