# THE FINANCIAL MARKETPLACE THIRDEDITION

Cooper/Fraser



## THE FINANCIAL MARKETPLACE THIRDEDITION

S. Kerry Cooper
Texas A&M University

Donald R. Fraser

Texas A&M University



ADDISON-WESLEY PUBLISHING COMPANY

Reading, Massachusetts ■ Menlo Park, California ■ New York ■ Don Mills, Ontario Wokingham, England ■ Amsterdam ■ Bonn ■ Sydney ■ Singapore Tokyō ■ Madrid ■ San Juan

Sponsoring Editor: Barbara Rifkind

Production Administrator: Loren Hilgenhurst Stevens

Associate Editor: Christine A. O'Brien Managing Editor: Mary Clare McEwing

Copy Editor: Barbara Willette

Cover and Text Design: Vanessa Piñeiro Illustrators: Terry Presnall, George Nichols Manufacturing Supervisor: Roy Logan

#### Library of Congress Cataloging-in-Publication Data

Cooper, S. Kerry.

The financial marketplace/S. Kerry Cooper, Donald R. Fraser.—3rd ed.

p. cm.

Bibliography: p. Includes index.

ISBN 0-201-50848-6

1. Finance. 2. Finance—United States. I. Fraser, Donald R.

II. Title.

HG173.C675 1990

89-34010

332.1—dc20

CIP

Copyright © 1990 by Addison-Wesley Publishing Company, Inc. 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. Printed in the United States of America.

For our wives, Maryvonne
Lyn
and kids, Chris and Danielle
Eleanor

### **Preface**

This third edition of *The Financial Marketplace* appears at the end of a decade of sweeping change in the financial system of the United States and the world. Throughout the 1980s, financial innovation and deregulation were at center stage in the economic arena, and virtually all financial markets and institutions were affected in varying degrees. These changes are incorporated into the discussion of each of the chapters in the new edition. This edition also features a "post-script" describing the Financial Institutions Reform, Recovery, and Enforcement Act of 1989. The "postscript" not only reflects the authors' desire to have the new edition of the book as up-to-date as possible, but also is symbolic of the rapid pace of change in the financial marketplace in recent years.

#### MAJOR CHANGES IN THE THIRD EDITION

Developments such as continuing financial innovation, economic change, and regulatory and legislative developments required the addition of new material and the reorganization of entire chapters. All tables, charts, and other data have been updated as much as possible. Other changes have been made to improve exposition and to enhance treatment of especially significant material. Brief descriptions of some of the major changes, by chapter, follow.

Chapter 1, "An Overview of the Financial System," has been completely rewritten to make it much more substantive and to expand the conceptual treatment of saving, investment, and the role of the financial marketplace. The new Chapter 2, "Financial Assets: Income and Value," now focuses on the principles of valuation of financial instruments. Chapter 6, "The Level of Interest Rates," has been revised to reflect more fully the major role that foreign capital inflows now play in U.S. financial markets. Chapter 9, "The Financial Services Industry: Depository Institutions," has been rewritten to include functions of financial ser-

vice organizations, size and market shares of financial service firms, and a discussion of major factors determining the size and market shares of financial service firms. Chapters 11 and 12, which focus on the federal government's role as financial regulator and lender, have been revised to include discussion of the crises relating to the Farm Credit System, the Federal Home Loan Bank System, and the regulatory (and deregulatory) difficulties of recent years. Indeed, recent developments in regulatory issues have been incorporated into all the chapters concerned with financial institutions, particularly Chapters 9 through 14. Chapter 14, "Issues in the Regulation and Deregulation of Financial Institutions," includes a more extensive treatment of the deposit insurance issue.

The treatment of financial theory in Chapter 15, "Risk, Return, and the Efficiency of Financial Markets," has been expanded to cover arbitrage pricing theory and other theoretical developments. All the chapters concerned with financial markets have been completely updated. Chapter 21, which is concerned with the stock market, features full discussion of the 1987 stock market crash and its implications for market efficiency. Chapter 22, "Futures, Options, and Swaps," has been completely rewritten and offers expanded treatment of these instruments and markets. Chapters 24 and 25, which focus on the international monetary-financial system, have been thoroughly updated to reflect such developments as the trade and external debt problems of the United States, the burgeoning financial power of Japan, and the continuing problem of Third World debt (including a discussion of the Brady plan). Finally, the last three chapters of the book, which are concerned with economic policy, have been updated to reflect both theoretical and institutional developments. Chapter 27, "Fiscal Policy: Federal Taxing, Spending, and Borrowing," includes an updated treatment on the federal budget deficit problem and a thorough discussion of the 1986 federal income tax "reform."

#### **New Applications**

To help focus the reader on the most significant innovations and issues, we have added special-interest boxes in most chapters to illuminate significant topics, including "Money, Money, Money" (page 60), "CARs and CARDs: The Securitization of Practically Everything" (page 221), "Property Held by the Deposit Insurance Agencies: The Disposable and the Nondisposable" (page 342), "The Explosion of Junk" (page 453), and "Europe '92: European Economic Integration" (page 567).

#### USE OF THE BOOK

As with previous editions, *The Financial Marketplace* is designed primarily for use in junior, senior, and MBA courses concerned with the financial system—its components, functions, economic roles, and significance. In such macrofinancial courses, the book is designed to serve as the primary textbook. The book is also

PREFACE vii

suitable for use as a companion or supplemental text in courses concerned with microfinancial decision-making, such as commercial bank management and financial institutions management courses.

The Financial Marketplace covers the entire spectrum of the financial system in the economy, with special emphasis on financial markets. The sequence and selection of chapters can be easily adapted to suit the background of students, the emphasis and orientation of the instructor, and the course in which the book is used. For example, coverage of Chapter 4, "Money and the Financial System," and Chapter 5, "The Structure and Role of the Federal Reserve System," may be of marginal value for students with a strong background in economics. Also, instructors wishing to devote maximum attention to private-sector financial markets, instruments, and institutions (and less to monetary policy and other macroeconomic influences), may choose to omit or minimize coverage of Chapters 4, 5, 26 ("Monetary Policy: Formulation, Implementation, and Impact"), 27 ("Fiscal Policy: Federal Taxing, Spending and Borrowing"), and Chapter 28 ("The Record of Economic Policy").

As in previous editions, the text material is presented with minimal mathematics and only limited integration with the original literature. Technical terms are carefully defined when introduced and, on occasion, redefined when employed in a subsequent chapter. This facilitates altering the chapter sequence and also helps the student develop a thorough grasp of the terminology of the financial marketplace. A careful balance of description and analysis is attempted for all subjects. It is intended that students using this text will find the descriptive content complete and the analytical aspect useful.

#### **ACKNOWLEDGMENTS**

We have received a great deal of help from many individuals on all editions of this book. We are very grateful for their assistance and regret that we cannot acknowledge them all. We are particularly indebted to the following individuals who have served as reviewers on one or more editions: Fuad A. Abdullah, University of Nebraska, Omaha; James C. Baker, Kent State University; William Christiansen, Florida State University; Lawrence Conway, University of Toledo; Inayat U. Mangla, Western Michigan University; David Nawrocki, Villanova University; and Daniel White, Georgia State University.

Finally, we wish to thank the staff at Addison-Wesley Publishing Company, especially Barbara Rifkind, Senior Editor, Christine O'Brien, Associate Editor, and Loren Hilgenhurst Stevens, Production Administrator. We also extend our thanks to Vanessa Piñeiro, text designer, and Terry Presnall, illustrator.

We welcome any suggestions and comments on this text from both students and faculty.

S.K.C. D.R.F.

#### Contents

# PART I THE STRUCTURE AND ROLE OF THE FINANCIAL SYSTEM 1

#### 1 AN OVERVIEW OF THE FINANCIAL SYSTEM 3

The Role of the Financial System 4
Saving, Investment, and Financial Markets 7
Financial Intermediation 9
Financial Intermediaries and Instruments 13
Organization and Structure of Financial Markets 18
The Efficiency of the Financial System 21
Summary 22
Questions 23
References 23

#### 2 FINANCIAL ASSETS: INCOME AND VALUE 25

Measuring the Income Stream from a Financial Asset 25
Valuation of Financial Assets 29
Interest Rate Changes and Price Volatility for Financial Instruments 34
Price Volatility and Duration 35
Summary 37
Questions 38
References 38

## 3 HISTORICAL DEVELOPMENT OF THE UNITED STATES BANKING AND FINANCIAL SYSTEM 39

The Colonial Period 39
From the Revolution to the Civil War 41
From the Civil War to the Founding of the Federal Reserve 46
From the Founding of the Federal Reserve to the Present 49
Summary 54
Questions 55
References 56

#### 4 MONEY AND THE FINANCIAL SYSTEM 57

The Nature of Money 57
Measurement of the Money Supply 58
The Economic Significance of Money 64
Money Creation in a Modern Economy 71
Sources of Change in Bank Reserves 81
The Fed and the Money Supply 85
The Monetary Base and the Monetary Multiplier 90
The Federal Reserve System's Role in the Financial Marketplace 93
Summary 93
Questions 94
References 95

## 5 THE STRUCTURE AND ROLE OF THE FEDERAL RESERVE SYSTEM 97

Origins of the Fed 97
Structure of the Federal Reserve System 99
Tools of Monetary Policy 106
Problems of Monetary Control 118
The Fed as Fiscal Agent 119
Regulation and Supervision of Member Banks 119
The Fed and Banking Structure 120
National Payments System 121
The Independence of the Fed 121
Summary 123
Questions 124
References 125

### 

#### 6 THE LEVEL OF INTEREST RATES 129

The Real Interest Rate 129
The Loanable Funds Theory of Interest Rate Determination 135
Summary 145
Questions 146
References 146
Appendix 148
References 153

#### 7 THE TERM STRUCTURE OF INTEREST RATES 155

Maturity and Yield: Yield Curves 156
Factors Shaping the Yield Curve 162
The Pure Expectations Theory 168
An Eclectic View of Term Structure Determination 171
Uses of the Yield Curve 172
Summary 178
Questions 178
References 179
Appendix 180
References 182

## 8 INFLATION AND OTHER INFLUENCES ON THE STRUCTURE OF INTEREST RATES 185

Inflation 185
Interest Rates and Inflation 191
Inflation and the Structure of Interest Rates 198
Default Risk 198
Taxability 203
Callability 206
Marketability 207
Summary 207
Questions 208
References 209

### 

## THE FINANCIAL SERVICES INDUSTRY: DEPOSITORY INSTITUTIONS 213

The Functions of Financial Services Organizations 214
Sizes and Market Shares of Financial Service Firms 216
Major Factors Affecting the Sizes and Market Shares
of Financial Service Firms 218
Commercial Banks Versus Other Depository Institutions 225
The Bank as a Firm: Sources and Uses of Funds 225
Other Depository Financial Institutions 231
Summary 236
Questions 237
References 237

## THE FINANCIAL SERVICES INDUSTRY: NONDEPOSITORY FINANCIAL INSTITUTIONS 239

Money Market Funds 241
Contractual Financial Institutions 243
Other Financial Institutions 247
Summary 254
Questions 254
References 255

## THE ROLE OF GOVERNMENT AS LENDER: FEDERAL CREDIT AGENCIES 257

Federal Credit Agencies 258
Federal Lending Agencies 264
Federally Sponsored Credit Agencies 267
Summary 271
Questions 271
References 272

# PART IV \_\_\_\_\_\_ GOVERNMENT REGULATION AND THE FINANCIAL SYSTEM 273

## 12 THE ROLE OF GOVERNMENT AS FINANCIAL REGULATOR 275

The Economic Basis for Depository Institution Regulation 275
Emergence of the Present Regulatory Framework 281
Regulation of Nonbank Depository Institutions 291
The Regulatory Structure: Summary and Assessment 294
The Functions of Regulatory Agencies 295
Summary 301
Questions 301
References 302

## FINANCIAL REFORM AND THE REVOLUTION IN THE FINANCIAL SERVICES INDUSTRY 305

Deregulation 306
Competition from Nondepository Organizations 309
Overlap of Functions 311
Consequences of the Revolution in the Financial
Services Industry 312
The Financial Services Industry of the Future 318
Summary 321
Questions 322
References 323

## 14 ISSUES IN THE REGULATION AND DEREGULATION OF FINANCIAL INSTITUTIONS 325

Product Deregulation 325
Deposit Insurance 337
Reform of the Regulatory Structure 345
Summary 349

Questions 350 References 351

### 

## RISK, RETURN, AND THE EFFICIENCY OF FINANCIAL MARKETS 355

## SECTION A ASSET PRICING IN FINANCIAL MARKETS

Portfolio Selection and Diversification 357 The Capital-Asset Pricing Model 363 Financial Market Efficiency 367

#### SECTION B

#### TYPES OF FINANCIAL MARKETS 370

The Money Markets 370
The Capital Market 372
Linkages between the Money and Capital Markets 374
Futures Markets 374
Summary 375
Questions 376
References 376

## OPERATIONS OF FINANCIAL INSTITUTIONS IN THE FINANCIAL MARKETS 379

The Basic Role of Financial Institutions 380
Financial Institutions and Risk Management 384
Maturity Management 384
Business Fluctuations and the Interest-Rate Cycle 384
Maturity Management, Credit-Risk Management, and the Basic Functions of Financial Institutions: A Synthesis 397
Summary 399

CONTENTS

Questions 399 References 400

## 17 THE MONEY MARKET: U.S. TREASURY AND FEDERAL AGENCY SECURITIES, FEDERAL FUNDS, AND REPURCHASE AGREEMENTS 401

The Money Market: An Overview 401
The Role of the Federal Reserve 403
Government Security Dealers 405
U.S. Government Securities 407
Federal Agency Securities 413
Federal Funds 414
Repurchase Agreements 419
Summary 421
Questions 421
References 422

## THE MONEY MARKET: DOMESTIC AND EURODOLLAR CERTIFICATES OF DEPOSIT, BANKERS ACCEPTANCES, AND COMMERCIAL PAPER 423

Certificates of Deposit 423
Bankers Acceptances 427
Commercial Paper 433
Summary 437
Questions 438
References 438

#### 19 THE CAPITAL MARKET: BONDS 441

Dimensions of the Capital Market 442
Corporate Bonds 443
State and Local Government Bonds 452
U.S. Government and Government Agency Securities 457
CATS and TIGRs and STRIPS 459
Summary 459
Questions 460
References 461

#### 20 THE CAPITAL MARKET: MORTGAGE INSTRUMENTS 463

Characteristics of Mortgages 464
The Primary Mortgage Market 466
The Secondary Mortgage Market 479
Mortgage Yields 482
Summary 482
Questions 484
References 485

#### 21 THE CAPITAL MARKET: EQUITY SECURITIES 487

Business Corporation Equity Financing 487
Characteristics of Equity Securities 490
Ownership of Equity Securities 493
The Primary Market for Equity Securities 493
The Secondary Market for Equity Securities 496
Valuation of Equity Securities 498
Summary 504
Questions 505
References 505

#### 22 FUTURES, OPTIONS, AND SWAPS 507

The Nature of Financial Futures Markets 507
Options 521
Swaps 524
Summary 528
Questions 528
References 528

## THE FLOW OF FUNDS ACCOUNTS IN THE U.S. ECONOMY 531

Concept of the Flow of Funds 531
Sources and Uses of Funds in Financial Markets 539
Using the Flow of Funds to Forecast Financial Market Pressures 541
Summary 542
Questions 543
References 543

## PART VI THE INTERNATIONAL FINANCIAL SYSTEM 545

#### 24 THE INTERNATIONAL MONETARY SYSTEM 547

Fundamentals of the International Monetary System 548
Modern Exchange Rate Systems 562
Interest-Rate and Exchange-Rate Relationships 575
Summary 578
Questions 579
References 579

#### 25 INTERNATIONAL BANKING AND FINANCIAL MARKETS 581

The Nature and Significance of International Financial Markets 581
Instruments of the Eurocurrency Market 590
The International Debt Problem 591
The International Bond Market 594
The Role of Commercial Banks in the International
Financial System 600
Overseas Banking and the U.S. Financial System 602
Foreign Banking in the United States 605
Summary 608
Questions 609
References 610

# PART VII\_\_\_\_\_\_ECONOMIC POLICY AND THE FINANCIAL MARKETPLACE 613

## 26 MONETARY POLICY: FORMULATION, IMPLEMENTATION, AND IMPACT 615

Economic Policy and Economic Activity 615 Goals of Economic Policy 620 Formulation of Monetary Policy 628 The Transmission of Monetary Policy 644 Unsettled Issues of Monetary Policy 649
The Monetarist-Keynesian Debate 649
Summary 657
Questions 658
References 658

### FISCAL POLICY: FEDERAL TAXING, SPENDING, AND BORROWING 661

Fiscal Management Activities of the U.S. Treasury 662
Fiscal Policy 668
"Automatic" and Discretionary Fiscal Effects 677
Debt Management as a Tool of Economic Policy 681
Summary 683
Questions 684
References 684

#### THE RECORD OF ECONOMIC POLICY 687

From the Founding of the Federal Reserve to the Great Depression: (1913–1929) 688

From the Great Depression to the End of World War II 691

Two Decades of Economic Expansion: (1945–1966) 696

From 1966 to 1981 700

Reaganomics: (1981–1988) 702

Summary 705

Questions 706

References 707

POSTSCRIPT 708

**INDEX** 710