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◆ SECOND EDITION ◆

FOUNDATIONS OF FINANCIAL MARKETS AND INSTITUTIONS

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To my father, Alfonso Fabozzi, and to the
memory of my mother, Josephine Fabozzi.

Frank J. Fabozzi

To all of my students, wherever they are.

Franco Modigliani

To my mother, Peggy Maginn Ferri, and
to the memory of my father,
Ferdinand E. Ferri.

Michael G. Ferri

PREFACE

PURPOSE AND STRUCTURE OF TEXT

In the preface to the first edition, we wrote that the last 30 years had been a time of profound, indeed revolutionary, change in the financial markets and institutions of the world. The hallmarks of that change were innovation, globalization, and deregulation. In the last few years, those forces have actually gathered more strength, and the financial landscape continues to undergo large and visible changes around the globe. In the United States alone, the number of people holding equity shares, either directly or indirectly through some form of mutual funds, has risen sharply since 1993. Money from U.S. investors continues to pour into markets abroad, and the interest of foreign investors in U.S. markets keeps growing. Japanese leaders are intent on further deregulation of that nation's financial markets, and Chile's experiment with a privately managed and market-oriented social security system is gaining world-wide attention. The discipline that we know as Finance has attracted the talents and energies of people from Chicago to Singapore and from Paris to Bombay.

Our purpose in writing this book is to instruct students about this fascinating revolution. We describe the wide array of financial securities that are now available for investing, funding operations, and controlling various types of financial risk. We help the students to see each kind of security as a response to the needs of borrowers, lenders, and investors, who manage assets and liabilities in a world of constantly changing interest rates, asset prices, regulatory constraints, and international competition and opportunities. Our book devotes a considerable amount of space to explaining how the world's key financial institutions manage their assets and liabilities and how innovative instruments support that management. Also, the text gives students a thorough introduction to financial regulation and to major facets of international finance.

It is a safe bet that change will mark the discipline of finance over the foreseeable future and will produce new kinds of institutions, markets, and securities. Our extensive explanation of the developments that dominate today's financial scene provides students with the sense of institutional structure and the analytical tools that they will need to understand the innovations that will surely occur throughout their careers.

Our coverage of institutions, investors, and instruments is as current and up-to-date as we can produce in the face of frequent and significant change both in the United States and around the world. We have made a major effort to get the latest information and data on the players in the global financial game and the rules by which it is played. We think our focus on the actual practices of financial institutions is particularly beneficial to students who will, as noted above, inevitably have to respond to changes in those institutions and their environment.

We believe that our book differs in several key respects from many texts on financial institutions and markets. What follows is an outline of the key differences.

The first difference, and a special feature of this text, is its lengthy coverage of the securitization of assets and the large mortgage market. Securitization is the process by which a security, whose collateral is the cash flow from a pool of individually illiquid and often small assets, is created and sold in the capital markets. Asset securitization has been a major innovation of the past 20 years and represents a radical departure from the traditional system for managing and acquiring many kinds of assets. The mortgage-backed security is the prime example of this process and accounts for the largest part of the market for securitized assets. However, the issuance of securitized pools of credit card debt, auto loans, and other consumer liabilities is becoming a very important part of international financial markets. The text devotes a considerable amount of time to securitized assets and their markets and offers chapters on mortgage loan securitization as well as the securitization of other assets.

The second difference is our commitment to giving the students a substantial amount of information and analysis regarding international or global topics in finance. Our discussions range across a wide field, encompassing markets for bonds and stocks as well as mutual funds in Tokyo, London, Frankfurt, and Paris, among other places. The text gives some detailed explanations about the operations, structure, and regulation of these major markets and institutions. Just a glance at the table of contents shows that this book covers many international topics, which today's students must know in order to function in the increasingly integrated international financial system where they will soon be working.

The third difference is the book's extensive coverage of the markets for derivative securities, such as options, futures, swaps, customized agreements for controlling interest rate risk, and so on. These derivative securities and their markets grow ever more important in global finance. Though the popular press often criticizes and misrepresents these instruments, derivatives enable financial practitioners to control risk and the cost of funding. Because of these instruments, financial markets in the United States and throughout the world are more efficient and can contribute more to economic development and growth.

Our discussion of options naturally contains an explanation of the theoretical principles of pricing. We often show that option pricing theory also applies to complex securities that have embedded options. For example, many kinds of bonds contain option-like provisions: Issuers may exercise some, and holders may exercise others. Students need to understand options and pricing theory if they are to grasp the valuation of many of today's important assets. Although the text does not delve deeply into trading strategies, it does contain a great deal of information on these contracts and is suitable as a supplementary text for a course dealing with derivatives.

PLANNING AND MANAGING A COURSE

We do not believe that an instructor has the time in a single semester to treat all the topics covered by this book. The following table contains our suggestions for the chapters that should be included in a one-semester course on financial markets and institutions. The table also identifies those chapters that render the text a useful supplement for a course in investments or one in derivative securities.

Chapter number and title	One-semester course on markets and institutions	Supplement for course on:	
		derivatives	investments
1. Introduction	x		
2. Financial Intermediaries and Financial Innovation	x		
3. The Role of Government in Financial Markets	x		
4. Depository Institutions: Activities and Characteristics	x		
5. Central Banks and the Creation of Money	x		
6. Monetary Policy	x		
7. Insurance Companies	x		
8. Investment Companies	x		
9. Pension Funds	x		
10. Properties and Pricing of Financial Assets	(a)	(a)	x
11. Determinants of the Level and Structure of Interest Rates	x	x	x
12. The Term Structure of Interest Rates	x	x	x
13. Risk and Return and Asset Pricing Models	(a)	(a)	x
14. Primary Markets and the Underwriting of Securities	x		x
15. Secondary Markets	x		x
16. Treasury and Agency Securities Markets	x		x
17. Municipal Securities Markets	x		x
18. Common Stock Markets	x		x
19. Stock Markets around the World	x		x
20. Markets for Corporate Senior Instruments: I	x		x
21. Markets for Corporate Senior Instruments: II	x		x
22. The Market for Bank Obligations	x		x
23. Mortgage Market	x		x
24. Mortgage-Backed Securities Markets	x		x
25. Asset Securitization Markets	x		x
26. Financial Futures Markets	x	x	x
27. Options Markets	x	x	x
28. Pricing of Futures and Options Contracts	x	x	x
29. The Applications of Futures and Options Contracts		x	x
30. Interest Rate Swap and Interest Rate Agreement Markets		x	x
31. The Market for Foreign Exchange Rate Risk Control Instruments		x	x

Note: (a) This chapter should be covered if students have not learned this material in an earlier course.

CHANGES FROM THE FIRST EDITION

We have changed the text in several ways. First, we have updated all discussions of financial institutions in the United States and around the world, and we have revised the tables and charts, using the most current information and numbers we could find. Second, we have added a new chapter—chapter 25—which deals with asset-backed securities. Third, we have revised many of the end-of-chapter questions and increased the number of questions in various chapters. Finally, we have included some new topics, such as exotic options in chapter 27, and have increased the space devoted to numerous topics. They include NASDAQ regulation, bond pricing, spot and forward interest rates, medium term and structured notes, and collateralized mortgage obligations, among other things.

RENEWING OUR PLEDGE

As we wrote in our first edition, we would like those who adopt this text to tell us about their experiences with it. Please, let us know where you find the book helpful and where it needs changing. Also, we would like to see outlines and syllabi of courses for which this book has been adopted. We have devoted many, many hours to producing both the first and second editions, and we definitely want to know how beneficial our efforts have been to the people who use the text. If all continues to go well, there will be future editions of this book, and we want them to be as good as they can be. For that, we will need your help. For your help, we will all be grateful.

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We wish to acknowledge a number of people who have helped us in numerous respects, but who do not bear the burden of any errors or mistakes that may appear in the text. The following people, listed in alphabetical order, read some part or other of the material that has gone into the first or second edition of this text: Joseph Bencivenga (Bankers Trust Securities), Anand Bhattacharya (Prudential Securities), Daniel T. Coggin (Gerber/Taylor Associates), Bruce Collins (Western Connecticut State University), Jack Clark Francis (Baruch College, CUNY), Gary L. Gastineau (American Stock Exchange), K.C. Ma (Consultant), Scott Richard (Miller, Anderson & Sherrerd), and Uzi Yaari (Rutgers University).

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In our end-of-chapter questions, we use excerpts from *Institutional Investor* and several weekly publications of Institutional Investor Inc., *Wall Street Letter*, *Bank Management Letter*, and *Portfolio Letter*. We are grateful to Tom Lamont, editor of the weekly publications, for permission to use this material. We thank the following organizations for granting us permission to reproduce data: the Foundation Center, Institutional Investor, the Investment Company Institute, A.M. Best Company, and Crain Communications.

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Frank J. Fabozzi
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BIOGRAPHICAL SKETCHES

Frank J. Fabozzi is an Adjunct Professor of Finance at the School of Management at Yale University and editor of the *Journal of Portfolio Management*. From 1986 to 1992, he was a full-time member of the Finance faculty at the Sloan School of Management at MIT. Dr. Fabozzi has authored and edited several widely acclaimed books in finance. He is on the board of directors of the BlackRock complex of closed-end funds and the Guardian Park Avenue Portfolio family of open-end funds. He earned a doctorate in Economics in 1972 from The Graduate Center of the City University of New York and is a Chartered Financial Analyst. In 1994 he was awarded an honorary doctorate of Humane Letters from NOVA Southeastern University.

Franco Modigliani is Institute Professor and Professor of Finance and Economics at MIT. He is an Honorary President of the International Economic Association and a former President of the American Economic Association, the American Finance Association, and the Econometric Society. He is a member of several academies, including the National Academy of Science. Professor Modigliani has authored numerous books and articles in economics and finance. In October 1985, he was awarded the Alfred Nobel Memorial Prize in Economic Sciences. He has served as a consultant to the Federal Reserve System, the U.S. Treasury Department, and a number of European banks, as well as to many businesses, and is on several Boards of Directors. Professor Modigliani received a Doctor of Jurisprudence in 1939 from the University of Rome and a Doctor of Social Science in 1944 from the New School for Social Research, as well as several honorary degrees.

Michael G. Ferri is a Professor of Finance at George Mason University in Fairfax, Virginia, and holds the GMU Foundation Chair in Finance. He received his doctorate in economics from the University of North Carolina in 1975. His numerous articles on financial markets and investments have appeared in a variety of financial and economic journals. He is on the editorial advisory board of the *Journal of Portfolio Management* and several academic journals. He has been a vice-president of the Financial Management Association International and has served as a consultant to agencies of the U.S. government and to several major financial institutions. In 1997, Dr. Ferri held the Coenen Visiting Professorship in the Darden School of the University of Virginia.

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