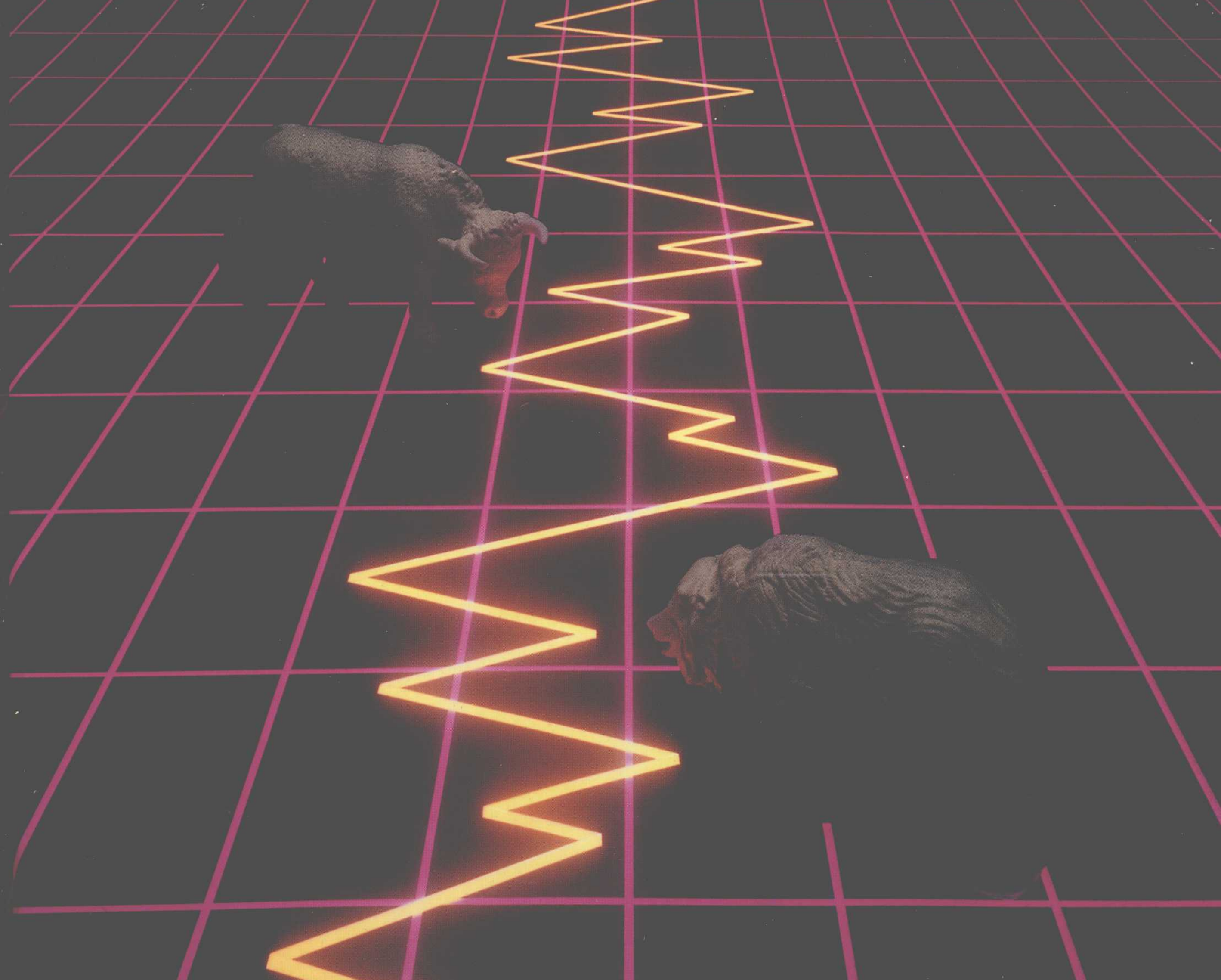
SECOND EDITION

CAPITAL MARKETS

Institutions and Instruments



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Capital Markets
Institutions and Instruments
Second Edition

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Preface

The revolution that has taken place in the world financial markets was aptly described by a noted economist, Henry Kaufman, in the 1985 Annual Report of Phibro-Salomon:

> *If a modern-day Rip Van Winkle had fallen asleep twenty years ago, or for that matter even ten years back, on awakening today, he would be astonished as to what has happened in the financial markets. Instead of a world of isolated national capital markets and a preponderance of fixed-rate financing, he would discover a world of highly integrated capital markets, an extensive array of financing instruments, and new methods of addressing market risk.*

The purpose of this book is to describe the wide range of instruments for financing, investing, and controlling risk that are available in today's financial markets. New financial instruments are not created simply because someone on Wall Street believes that it would be "fun" to introduce an instrument with more "bells and whistles" than existing instruments. The demand for new instruments is driven by the needs of borrowers and investors based on their asset/liability management situation, regulatory constraints (if any), financial accounting considerations, and tax considerations. For these reasons, to comprehend the financial innovations that have occurred and are expected to occur in the future, a general understanding of the asset/liability management problem of major institutional investors is required. Therefore, in addition to coverage of the markets for all financial instruments, we provide an overview of the asset/liability management problem faced by major institutional investors and the strategies they employ.

We believe that the coverage provided in this book on the institutional investors and financial instruments is as up-to-date as possible in a market facing rapid changes in the characteristics of the players and those making the rules as to how the game can be played. New financial instruments are introduced on a regular basis; however, armed with an understanding of the needs of borrowers and institutional investors and the attributes of existing financial instruments, the reader will be able to recognize the contribution made by a new financial instrument.

This book deviates in several ways from the traditional capital markets textbook. One important way is in our coverage of derivative markets (futures, options, swaps, etc.). These markets are an integral part of the global capital market. They are not—as often categorized by the popular press and some of our less informed congressional representatives and regulators—"exotic" markets. These instruments permit a mechanism by which market participants can control risk—borrowers can control borrowing costs and investors can control the market risk of their portfolio. It is safe to say that without the derivative markets, there would not be an efficient global capital market.

In addition, it is important to appreciate the basic principles of option theory not only as a stand-alone instrument, but because many financial instruments have embedded options. Also, the liabilities of many financial institutions have embedded options. Thus, it is difficult to appreciate the complex nature of assets and liabilities without understanding the fundamentals of option theory.

While we recognize that many colleges offer a specialized course in derivative markets, our purpose here is not to delve deeply into the various trading strategies and the nuances of pricing models that characterize such a course. Instead, we provide the fundamentals of the role of these instruments in financial markets, the principles of pricing them, and a general description of how they are used by market participants to control risk.

A special feature of this book is the extensive coverage of the mortgage market and the securitization of assets. Asset securitization refers to the creation of securities whose collateral is the cash flow from the underlying pool of assets. The process of asset securitization is radically different from the traditional system for financing the acquisition of assets. By far the largest part of the securitized asset market is the mortgage-backed securities market, where the assets collateralizing the securities are mortgage loans. Securitized assets backed by non-real estate mortgage loans are a small but growing part of the market.

Another key feature of this book is an emphasis on the role played by foreign investors in the U.S. market. Although the bulk of this book covers the U.S. financial markets, we discuss other major financial markets throughout.

In deciding the topics to cover in this book we discriminated between what belongs in a course on capital markets and what is the province of investment management. Oftentimes, because the needs of institutional investors dictate the need for financial instruments with certain investment characteristics or for a particular strategy employing a capital market instrument, we had to cross the line. The approach taken in this book makes it adaptable for a course in investment banking and as a supplement for a derivative markets course.

DIFFERENCES BETWEEN SECOND AND FIRST EDITIONS

The second edition greatly expands on the topics in the first edition. The number of chapters has been increased from 22 to 31. The differences between the two editions are summarized below:

- Chapter 1 in the first edition was fairly lengthy. In the second edition, the coverage has been split between Chapters 1 and 2. The reasons for the globalization of financial markets and the classification of global markets have been shifted from the last chapter in the first edition to Chapter 1 of the second edition.
- There are chapters devoted exclusively to the primary market (Chapter 6) and secondary market (Chapter 7). In the first edition, coverage of the primary and secondary markets was spread out in several chapters.
- The coverage of risk and return theories has been expanded to two chapters (Chapters 8 and 9) from one in the first edition.
- A new chapter (Chapter 12) introducing the swaps market has been included early in the book. The new chapter demonstrates how a swap can be used to create a security. More detailed information about specific types of swaps is then covered in later chapters. Chapter 15 includes a discussion of equity swaps, a topic not covered in the previous edition.
- The coverage of interest rate determination has been expanded from two chapters in the first edition to three chapters (Chapters 16, 17, and 18).
- Coverage of the debt obligations of corporations has been augmented from one chapter to two chapters (Chapters 21 and 22). There is greater coverage of the medium-term note market and the loan market. A discussion of the bankruptcy process is also included.
- The coverage of mortgage-backed securities has been expanded to two chapters: mortgage pass-through securities (Chapter 25) and collateralized mortgage obligations (Chapter 26). The presentation of collateralized mortgage obligations begins with a pool of mortgage pass-through securities and shows how the cash flows for the pool can be carved up to create various types of bonds. By presenting collateralized mortgage obligations in this manner, the student can see the structuring process that is now being used in other sectors of the financial market.
- There is a new chapter (Chapter 27) devoted to asset-backed securities.
- The two chapters on interest rate risk control tools in the first edition have been reorganized and expanded. Chapter 28 covers exchange-traded interest rate options and futures markets while Chapter 29 covers over-the-counter interest rate derivative markets.
- The chapter on foreign exchange markets in the first edition has been split into two chapters (Chapters 30 and 31).
- Coverage of the global financial markets was in the last chapter of the first edition. In the second edition, the material has been integrated into the other chapters.
- We have added at least 50% more questions to each chapter.

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We are indebted to many individuals for providing us with various forms of assistance. Michael Ferri (George Mason University) provided significant assistance for several of the chapters. Steve Boxer and Arun Muralidhar provided us with helpful comments on most of the chapters in the first edition. Laurence Siegel (Ford Foundation) reviewed many of the chapters and provided insightful comments, as well as encouragement. Chapter 3 benefitted significantly from the comments of Elizabeth Mays (Office of Thrift Supervision).

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In our end-of-chapter questions, we used excerpts from *Institutional Investor* and several weekly publications of Institutional Investor Inc., *Wall Street Letter*, *Bank Letter*, *BondWeek*, *Corporate Financing Week*, *Derivatives Week*, *Money Management Letter*, and *Portfolio Letter*. We are grateful to Tom Lamont, editor of the weekly publications, for permission to use the material. The source for the largest U.S. and global banks reported in Chapter 3 is EURABANK[R] database of Sleigh Corporation (Franklin Lakes, New Jersey). Jan D. Slee and Elaine Kallenbach furnished the information.

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Biographical Sketches

Frank J. Fabozzi is 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, and on the board of supervisory directors of two offshore 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.

Contents

Section III: Risk and Return Theories

Section IV: Derivatives Markets