

*Sixth Edition*

# MONEY AND CAPITAL MARKETS

FINANCIAL INSTITUTIONS AND INSTRUMENTS  
IN A GLOBAL MARKETPLACE



PETER S. ROSE

# **MONEY AND CAPITAL MARKETS**

**Financial Institutions and Instruments  
in a Global Marketplace**

**Sixth Edition**

**Peter S. Rose**  
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Boston, Massachusetts Burr Ridge, Illinois Dubuque, Iowa  
Madison, Wisconsin New York, New York San Francisco, California St. Louis, Missouri

# **Irwin/McGraw-Hill**

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Compositor:	<i>Weimer Graphics, Inc., Division of Shepard Poorman Communications Corp.</i>
Typeface:	<i>10/12 Times Roman</i>
Printer:	<i>Quebecor Printing/Dubuque</i>

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

Rose, Peter S.

Money and capital markets : financial institutions and instruments  
in a global marketplace / Peter S. Rose. — 6th ed.

p. cm. — (Irwin series in finance)

Includes index.

ISBN 0-256-15239-X

1. Finance — United States. 2. Money market — United States.

3. Capital market — United States. I. Title. II. Series.

HG181.R66 1997

332'.0973 — dc20

96-8515

*Printed in the United States of America*

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

## THE STUDY OF MONEY AND CAPITAL MARKETS

As teachers and practitioners of financial decision making are well aware, it would be difficult to find a subject for study of greater importance than the financial system and its markets. The *money and capital markets* are the mechanism in our society for converting the public's savings into investments — buildings, machinery and equipment, airports and highways, and inventories of goods and raw materials — so the economy can grow, new jobs can be created, and living standards can rise. It is the system of money and capital markets that handles most of the payments made each day for purchases of food, clothing, shelter, and tens of thousands of other goods and services. The financial system generates credit to sustain the public's spending and standard of living and stores future purchasing power (wealth) in the form of stocks, bonds, and other securities. The system of financial markets also makes possible the liquidation of those securities whenever the public needs cash for immediate spending.

The money and capital markets offer risk protection to businesses and individuals through sales of insurance policies and hedging instruments (such as options and futures contracts). And both domestic and international financial markets carry the great burden of public policy, serving as the conduit for government actions designed to *promote economic growth, reduce unemployment, and avoid inflation*. A central theme of this book, in all its editions, has been to highlight these essential contributions of the financial system to today's economy and society. This book's primary goal is to leave its readers with a clear picture of how money and capital markets around the globe work to fulfill these varied, yet vital, roles of facilitating savings and investment, making payments, supplying credit, accumulating wealth, supplying liquidity, protecting against risk, and supporting public policy.

## THE FINANCIAL SYSTEM OF MARKETS BESET BY CHANGE

Clearly, today's financial system is of great importance to every one of us. Student and teacher, businessman and businesswoman, consumer and investor, government policy-maker, and private citizen — all depend on the speed, efficiency, and quality of services that the system of money and capital markets provides. But, as this book tries to convey in each of its nine sections, that system of financial markets and institutions is today beset by sweeping change and serious problems — challenges whose dimensions and solutions are not easily grasped, and whose consequences will affect every individual and institution in the global economy for years to come.

As we will discover in the pages of this book, the financial system of money and capital markets is *not independent of the economy and society that surrounds it*. Economic booms and recessions, government budget deficits and taxes, technological innovations, political upheavals, wars, and social change — all impact the decisions made in the financial marketplace and often have devastating financial consequences. Consider the enormous political and social changes we have seen recently — the collapse of the Warsaw Pact and the ending of the cold war, the opening of Eastern Europe and the republics once a

part of the Soviet Union to investment and financial aid from the West, the growth of private market systems in economies formerly dominated by government control, the growing financial and political integration of Europe, the movement toward free trade zones in North and South America, war and then reconstruction in the Middle East, and the search for personal freedom and economic security in Africa, Asia, and Eastern Europe. At the same time, new financial service needs are emerging as the earth's population ages, people living alone or in smaller families become the norm, and good-paying jobs, financial security at retirement, and affordable health care seem more elusive than ever. These economic, political, and social changes have set in motion powerful forces reshaping financial systems around the globe.

There is a powerful trend toward increasingly intense worldwide competition for financial services as improvements in communications technology have brought widely separated banks and other financial institutions into direct competition with one another. National financial systems are merging into one vast, global financial services marketplace where national borders mean less and less. Deregulation of the financial sector by governments in Australia, Canada, Great Britain, Japan, the United States, and many other nations has further stimulated the global spreading of competition for financial services. This unfolding of worldwide financial services competition may well be benefiting us as consumers of financial services with lower prices and better quality, but it has also brought enormous problems that desperately await new solutions.

For one thing, intense financial services competition and rapid economic, social, and technological change have led to more failures among banks and other financial institutions, with even the largest and most venerable of financial institutions vulnerable to collapse. At the same time, in the decade of the 90s scandals rocked some popular financial markets, such as the market for U.S. government securities and the over-the-counter market in corporate stock, making investors question whether the system of money and capital markets is as efficient, equitable, and sound as we once thought it was. The result is a serious threat to public confidence in the soundness of banks and other financial institutions and the safety of the public's savings. How can we reassure the public about risk in the financial system and help them deal with that risk? Clearly, if we are to do so in the future, we must learn as much as we can about how the system of money and capital markets works and where it is headed.

A related problem centers on the huge volume of debt carried by many nations in both industrially developed regions of the globe and among lesser-developed countries of the Third World. In the United States, government debt has reached unprecedented levels, so that the interest and good will of foreign investors, who buy a substantial portion of that debt, has come to have a potent impact on economic and financial conditions inside the U.S. and in other countries as well. And what is true of nations has also been true of businesses and individuals, who, in some cases, built up unprecedented amounts of indebtedness over the past decade and now face the painful task of managing that debt in an era of slower and more uncertain growth. When is debt a useful financial tool and when is it harmful to us? What forms of debt are issued in the money and capital markets today and why? What might happen to the economy and the financial system if government could reduce its huge deficits and begin to pay down some of its enormous debt? These and other issues surrounding debt are addressed in numerous chapters throughout this book.

One of the factors that makes the rapid rise of debt in the financial markets such a problem is the volatility of the world economy. Recent decades have brought wide and unprecedented swings in the prices of crude oil and natural gas, gold, industrial raw materials, food, and fiber. Key industries, such as agriculture, construction, autos, and energy fuels, have fluctuated from unparalleled prosperity to the depths of depression. Not

surprisingly, because of the close links between the economy and the financial system, the money and capital markets and financial institutions have mirrored the ups and downs of these volatile industries. For example, stock prices on exchanges in London, New York, Tokyo, and other global financial centers rose to unprecedented heights, only to come tumbling down, and then rise again toward new record levels. Interest rates rose as fears of business bankruptcies and government defaults increased and then fell to the lowest levels in decades. The economy once again has responded to fluctuations in the financial system — lower interest rates and higher security prices have stimulated construction and investment, although growth in new jobs remains disappointingly low.

## FINANCIAL RISK MANAGEMENT

As we will see in this new edition, the result today is a financial system of markets and institutions both more sensitive and more alert to *risk* in all of its forms. *Risk management* has become a cornerstone of modern business decision making, and the financial markets have responded with a rapidly widening array of innovative new risk-management services, including security options, financial futures contracts, portfolio immunization, interest-rate and currency swaps, and balanced-funds management. This new edition of *Money and Capital Markets* contains an expanded discussion of today's risk management tools (especially in Chapters 7, 12, 13, 25, 27, 28, and 30) and integrates them more fully into the material in all of the relevant chapters. The discussion of futures, options, and swaps, in particular, has been significantly expanded.

## ABOUT THIS BOOK

As *Money and Capital Markets* enters its sixth edition, its goals remain much the same as in earlier editions:

- To present a comprehensive, yet interesting, analysis of the entire financial system — both domestic and international — and its component parts, with an expanded discussion in nearly every chapter of the trend toward globalization of financial markets and institutions.
- To acquaint the reader with all the major types of financial instruments, including bonds, stocks, mortgages, bills, notes, deposits, and other financial assets, and their uses, principal buyers and sellers, and trading characteristics.
- To provide a clear view of all the major types of financial institutions that operate within the global financial system, with a strong new emphasis in this edition on the many management tools available to financial institutions today.
- To provide a thorough discussion of how interest rates and security prices are determined and what causes security prices and interest rates to change under conditions of market efficiency or in a world characterized by the asymmetric distribution of information.
- To promote a better understanding of public policy issues in the financial marketplace and how government policymakers, working through the financial system, can influence financial and economic conditions and the welfare of businesses, individuals, and families.

- To explore the many important roles played by government regulation in shaping the character and health of the financial system (including the Basle Agreement on international capital standards for depository institutions and the new rules guiding the spread of interstate banking in the United States).
- To identify and understand the current and future trends — economic, demographic, social, and financial — that are reshaping the global financial system in order to respond to tomorrow's financial service needs.

## FEATURES OF THIS BOOK

These objectives are pursued by creating a variety of educational tools:

- Each chapter begins with a clear statement of its *learning objectives* to alert the reader to what is most important in the pages that follow.
- Numerous *illustrations*, *tables*, and *examples* appear throughout the book to help emphasize and clarify key points, equations, and ideas, and there is significantly expanded use of information boxes, including numerous *management insights* that focus upon the modern tools used by managers of financial institutions and an *international focus* series of boxes that add a global dimension to numerous topics throughout the text.
- A list of *key terms and concepts* appears at the end of each chapter and inside the text these key terms and concepts are marked in boldface so the reader can quickly see how each term is defined.
- *Problems to solve* are included at the end of most of the chapters (and there are more problems in this new edition) accompanied by extensive references for readers interested in achieving mastery of the subject.
- A *Money and Capital Markets Dictionary* appears at the end of the book to provide immediate access to brief definitions of each of the key terms presented in the chapters.
- The last chapter of the book, entitled *The Future of the Financial System*, attempts to tie together the various economic, demographic, and financial trends that are reshaping the money and capital markets into a global, intensely competitive, and risk-laden environment. This chapter and several that precede it look at the impact of new legislation (such as the 1994 Riegle-Neal Interstate Banking Act in the United States), new regulations (such as the Basle Agreement on international capital standards for banks), and historic trade agreements such as NAFTA and the Maastricht Treaty for European unity.

This new edition also addresses numerous topics of current concern around the world, including the impact of asymmetric information in the financial marketplace (discussed principally in Chapter 3), standby credit arrangements (presented principally in Chapters 4 and 17), the changing character of regulations surrounding financial institutions (which are now concentrated in a completely new chapter for this edition, Chapter 7), new research findings on inflation, interest rates, and stock prices (Chapter 10), expanded coverage of the Black-Scholes model and new types of futures, options (Chapter 13), and interest-rate swaps (Chapter 12), the changing rules for auctioning government securities (Chapters 15 and 22), recent innovations in money market instruments (Chapters 16 and 17), new

household financial services and new government laws to protect the consumer of financial services (principally in Chapters 24 and 25), new regulations surrounding the entry of foreign banks into the United States (principally Chapters 4 and 29), and recent reform of the deposit insurance system (found principally in the new Chapter 7).

## ACKNOWLEDGMENTS

As in earlier editions of this book, the author has benefited from the ideas, criticisms, and data provided by many economists, financial analysts, government agencies, trade associations, and private groups. The author wishes to extend special appreciation to James C. Baker of Kent State University, Ivan T. Call of Brigham Young University, Eugene F. Drzycinski of the University of Wisconsin, Mona J. Gardner of Illinois State University, Timothy Koch of the University of South Carolina, David Mills of Illinois State University, John P. Olienyh of Colorado State University, Colleen C. Pantalone of Northeastern University, Richard Rivard of the University of South Florida, Paul Bolster of Northeastern University, Robert M. Crowe formerly with the American College at Bryn Mawr, Joseph P. Ogden of the University of Tennessee-Knoxville, Donald A. Smith of Pierce College, Oliver G. Wood, Jr., of the University of South Carolina, Larry Lang of the University of Wisconsin-Oshkosh, Jeffrey A. Clark of Florida State University, James F. Gatti of the University of Vermont, Gioia P. Bales of Hofstra University, Ahmad Sohrabian of California State Polytechnic University-Pomona, and Thomas A. Fetherston of the University of Alabama-Birmingham for their helpful and insightful reviews and criticisms of the various editions through which this book has passed. In addition, numerous associations and institutions gave their permission to reprint important data or other pieces of information in various editions, including the American Council of Life Insurance, the *Canadian Banker* (official publication of the Canadian Bankers' Association), the Chicago Board of Trade, the Credit Union National Association, Dow Jones Reprints, Dun & Bradstreet, Inc., the First Boston Corporation, the Insurance Information Institute, Moody's Investor Service, Standard & Poor's Corporation, and the United States League of Savings Associations. The author also gratefully acknowledges the support, patience, and understanding of his family, which made completion of this sixth edition possible. Nevertheless, any shortcomings that remain belong to the author.

## A NOTE TO THE STUDENT

The money and capital markets are a fascinating field of study. What happens in those markets affects the quality of our lives every day in many different ways. The financial markets are dynamic institutions continually "putting on a new face" in the form of new services, new instruments, and new methods. This text is only an *introduction* to these vast, ever-changing institutions — one that you will want to build on throughout your career through continued reading and personal involvement.

As you begin each chapter of this new book, aim for mastery of the material, for making the most of an important opportunity to learn. How can you do that?

Let me suggest that you start with the short list of *learning objectives* that begin each chapter. These are guideposts, a brief description of what I hope you will come away with after you have closed the book. It is a good idea to go over this list of learning objectives as you start to read and then again when you have finished each chapter. If you are still unsure whether you have received any help with any one of these learning objectives, go back and



review the portion of the chapter which deals with that particular objective. Ask yourself if the goal makes sense to you and if you now feel better informed about it than before.

Next note the *key terms and concepts* at the end of each chapter. Let me suggest that you make a pencil list of these key terms on a sheet of notebook paper or list them in your PC or programmable calculator and then be on the lookout for them as you read each chapter. (All key terms are shown in boldface type where they appear within a chapter so they will stand out.) Consider writing a definition of each of the key terms in your own words. Then double check your definitions with those given in each chapter or in the *Money and Capital Markets Dictionary* that appears at the end of the book.

Also, at the conclusion of each chapter is a list of *Study Questions and Problems*. Your instructor may assign some of these, but even if that doesn't happen, try to answer them for yourself. If you have the time, writing or typing out an answer to each question and problem (perhaps saving your answers in a PC file) is the best approach for mastering the subject. Or you can try to answer each question orally or discuss them in a group study session with other members of the class. If you don't feel comfortable with your answer to a particular problem or question, go through the chapter until you find the right section and review that portion of the reading material again.

Keep in mind that this text is designed with *two* fundamental purposes in mind: (1) to arm you with analytical tools to help you understand why the financial marketplace behaves as it does and how we should make financial decisions and (2) to describe how today's money and capital markets operate and where they appear to be headed, so that you can more easily "speak the language" of the markets and comfortably find your way around in them. Chapters 1 through 13 are aimed mainly at the first of these purposes, developing a good set of analytical tools. Chapters 14 through 30 mainly aim at the second purpose, to see how each financial market operates today and to be able to "speak their language." A successful course in money and capital markets will give you *both* the tools and the language of the financial markets.

Reading this book and successfully completing this course should help you in meeting your long-range career goals and in successfully completing your degree or professional certification program. *Money and Capital Markets* provides essential background for those taking subsequent course work in investments, capital budgeting, business finance, money and banking, macroeconomics, international finance, and government policy. Moreover, this book sensitizes you to the key problems and issues faced today by business managers and government policymakers on a daily basis, especially in those problem areas related to borrowing and lending money and to government regulation of the financial marketplace. However, just as with every other course you will take, your future success in using this new knowledge will depend on the energy and enthusiasm, the commitment to excellence and hard work that you bring to the subject. It is a challenge worthy of your best efforts. Good luck!

Peter S. Rose

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