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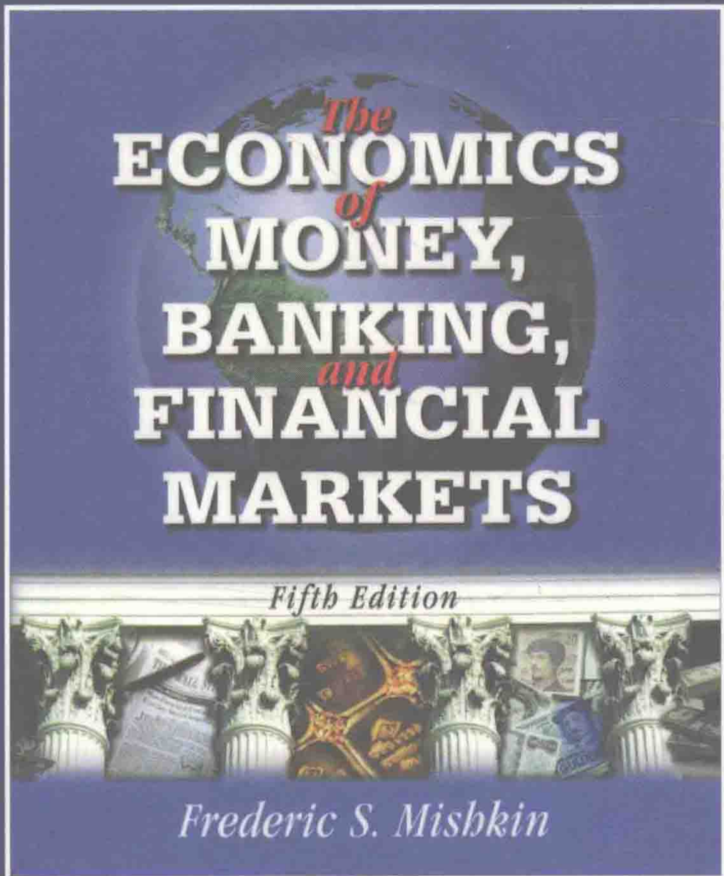

1998 Readings

to accompany

The Economics of Money, Banking, and Financial Markets

Fifth Edition

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to accompany

Mishkin

THE ECONOMICS OF MONEY, BANKING, AND FINANCIAL MARKETS

Fifth Edition

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PREFACE

This *Reader* helps make *The Economics of Money, Banking, and Financial Markets, Fifth Edition* a unique teaching package to meet the needs of both professors and students. A basic problem of textbooks in the Money and Banking or Financial Markets and Institutions fields is that current events and financial innovation make many of the facts in the textbooks obsolete soon after they are published. To minimize this problem, *The Economics of Money, Banking, and Financial Markets* stresses a few basic economic principles that never go out of date, rather than a set of facts that quickly do so, to understand the role of money in the economy and the structure of financial markets and institutions. To make this economic approach to teaching Money and Banking or Financial Markets and Institutions even more effective, it is important to keep the textbook analysis up to date by supplementing it with current articles on money, financial markets and institutions. This is what this *Reader* does.

UNIQUE FEATURES OF THIS READER

Up-to-date

In contrast to other readers in the Money and Banking or Financial Markets and Institutions field, this *Reader* is updated annually, with half or more of the articles new each year. In this latest edition of the *Reader*, nineteen of the thirty-two articles are new; twelve of them were published in 1997 and another seven during the second half of 1996. These include articles on inflation-indexed bonds, Big Mac prices and purchasing power parity, the influence of competition and firm size on lending relationships, automatic lending machines, efficiency of U.S. banking firms, in-store bank branches, the Fed's place in a democratic society, inflation targeting, the Mexican financial crisis, European Monetary Union, the Nobel Lectures of Milton Friedman and Robert Lucas, monetary policy and economic growth, and the determinants of stock prices. No other reader in the field is as current, and this will continue to be the case with the appearance of a new edition of the *Reader* every year.

A New Way to Teach Financial Markets and Institutions

The Economics of Money, Banking, and Financial Markets develops a unifying economic framework to organize students' thinking about financial markets and institutions so that they can make sense of, rather than be confused by, all the facts about our financial system. The strength of this approach, in contrast to the approach used in other textbooks which focus on a set of facts about financial institutions, is that it will not go out of date. Because this approach stresses lasting economic concepts, it allows instructors to discuss the latest developments in financial markets and institutions. As part of this approach to teaching financial markets and institutions, instructors will want to use current articles in class to illustrate the economic forces that are driving changes in financial markets. This *Reader* is designed to make it easier for instructors to do this and keep their teaching current. Nearly half of the readings are devoted to financial markets and institutions. Because the need for current discussion of financial markets and institutions is so important to teaching Money and Banking or Financial Markets and Institutions, future annual editions of the *Reader* will have a similarly high proportion of current articles that focus on financial markets and institutions.

The numerous, current readings on financial markets and institutions that will appear annually in this and future editions of the *Reader* and the stress on economic analysis in the textbook provide a whole new way of teaching financial markets and institutions. This new approach makes it less likely that students will memorize a mass of facts that will be forgotten after the final exam and that soon become obsolete because of the rapid pace of financial innovation. Instead, they will have an understanding of the dynamism of our financial markets and institutions and will see that what they have learned applies to current developments in financial markets, illustrating the relevance of their course work.

Pedagogical Aids

Each of the *Reader*'s five parts begins with an introduction (written by James Eaton) which provides the student with a brief summary of each article. In addition, the introduction suggests the chapter(s) with which the reading might be assigned, thus helping instructors decide how to organize their courses. We suggest that instructors read through all the part introductions as they plan their courses to become aware of the various options for matching readings with the text chapters they assign.

James Eaton has also written several discussion questions which follow each reading in order to encourage students to think about how the reading relates to material in the text. Instructors may find these questions useful for class discussions of the reading or as written assignments in problem sets.

Low Price

Because we believe that this *Reader* is such an important supplement to courses in Money and Banking or Financial Markets and Institutions, it will be sold with the text at a particularly low price. This should give students the benefit of the *Reader* without making its cost prohibitive.

SUGGESTIONS AND ACKNOWLEDGMENTS

It is hoped that students and instructors who use this *Reader* will find it an effective pedagogical tool. We welcome any comments or suggestions concerning the articles in this edition of the *Reader* or articles which would be appropriate for future editions. Please send your comments and suggestions to:

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We owe sincere thanks to several people for their assistance in the preparation of this edition of the *Reader*. Special thanks go to Elizabeth Middleton, whose skillful typing continues to give the *Reader* its uniform, polished appearance; and to Joan Twining, business and economics supplements editor at Addison Wesley Longman. Above all, we would like to thank our wives Mary and Sally, and our children Amanda, Elizabeth and Matthew (for Eaton) and Matthew and Laura (for Mishkin), who put up with us while projects like this claim a large share of our time. We hope they know that they are infinitely more important to us than a book.

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CONTENTS

PART ONE

INTRODUCTION

The three readings for Part One introduce some of the institutions and issues critical to the successful operation of the financial system—the money market, money itself and the forms in which it is evolving, and the difficulties of defining a monetary aggregate that will be an accurate guide for monetary policy.

In Reading 1, **"The Money Market,"** Timothy Q. Cook and Robert K. LaRoche provide an overview of money market participants and financial instruments. This reading supplements Chapter 2's introduction to the financial system.

Reading 2, **"Logging on to Electronic Means of Payment"** by Michelle L. Kezar, surveys electronic alternatives to cash and checks and obstacles impeding their rapid adoption by businesses and consumers. This reading can be used early in the course with Chapter 3's discussion of the evolution of the payments system and electronic money or reserved for use when financial innovation is discussed in Chapter 10.

John V. Duca in Reading 3, **"The Changing Meaning of Money,"** explains how changes in technology, demographics, and preferences have weakened monetary aggregates' usefulness as economic indicators. The reading shows the difficulty of formulating an empirical definition of money and can supplement Chapter 3's distinction between theoretical and empirical definitions of money or Chapter 19's discussion of monetary policy targets.

READING 1

The Money Market

Timothy Q. Cook and Robert K. LaRoche

The major purpose of financial markets is to transfer funds from lenders to borrowers. Financial market participants commonly distinguish between the "capital market" and the "money market," with the latter term generally referring to borrowing and lending for periods of a year or less. The United States money market is very efficient in that it enables large sums of money to be transferred quickly and at a low cost from one economic unit (business, government, bank, etc.) to another for relatively short periods of time.

The need for a money market arises because receipts of economic units do not coincide with their expenditures. These units can hold money balances—that is, transactions balances in the form of currency, demand deposits, or NOW accounts—to insure that planned expenditures can be maintained independently of cash receipts. Holding these balances, however, involves a cost in the form of foregone interest. To minimize this cost, economic units usually seek to hold the minimum money balances required for day-to-day transactions. They supplement these balances with holdings of money market instruments that can be converted to cash quickly and at a relatively low cost and that have low price risk due to their short maturities. Economic units can also meet their short-term cash demands by maintaining access to the money market and raising funds there when required.

Money market instruments are generally characterized by a high degree of safety of principal and are most commonly issued in units of $1 million or more. Maturities range from one day to one year; the most common are three months or less. Active secondary markets for most of the instruments allow them to be sold prior to maturity. Unlike organized securities or commodities exchanges, the money market has no specific location. It is centered in New York, but since it is primarily a telephone market it is easily accessible from all parts of the nation as well as from foreign financial centers.

The money market encompasses a group of short-term credit market instruments, futures market instruments, and the Federal Reserve's discount window. The table summarizes the instruments of the money market. The major participants in the money market are commercial banks, governments, corporations, government-sponsored enterprises, money market mutual funds,

Reprinted from *Instruments of the Money Market* edited by Timothy Q. Cook and Robert K. LaRoche, Federal Reserve Bank of Richmond, 1993, 1-5.

The Money Market

Instrument	Principal Borrowers
Federal Funds	Banks
Discount Window	Banks
Negotiable Certificates of Deposit (CDs)	Banks
Eurodollar Time Deposits and CDs	Banks
Repurchase Agreements	Securities dealers, banks, nonfinancial corporations, governments (principal participants)
Treasury Bills	U.S. government
Municipal Notes	State and local governments
Commercial Paper	Nonfinancial and financial businesses
Bankers Acceptances	Nonfinancial and financial businesses
Government-Sponsored Enterprise Securities	Farm Credit System, Federal Home Loan Bank System, Federal National Mortgage Association
Shares in Money Market Instruments	Money market funds, local government investment pools, short-term investment funds
Futures Contracts	Dealers, banks (principal users)
Futures Options	Dealers, banks (principal users)
Swaps	Banks (principal dealers)

futures market exchanges, brokers and dealers, and the Federal Reserve.

COMMERCIAL BANKS

Banks play three important roles in the money market. First, they borrow in the money market to fund their loan portfolios and to acquire funds to satisfy noninterest-bearing reserve requirements at Federal Reserve Banks. Banks are the major participants in the market for federal funds, which are very short-term—chiefly overnight—loans of immediately available money; that is, funds that can be transferred between banks within a single business day. The funds market efficiently distributes reserves throughout the banking system. The borrowing and lending of reserves takes place at a competitively determined interest rate known as the federal funds rate.

Banks and other depository institutions can also borrow on a short-term basis at the Federal Reserve discount window and pay a rate of interest set by the Federal Reserve called the discount rate. A bank's decision to borrow at the discount window depends on the relation of the discount rate to the federal funds rate, as well as on the administrative arrangements surrounding the use of the window.

Banks also borrow funds in the money market for longer periods by issuing large negotiable certificates of deposit (CDs) and by acquiring funds in the Eurodollar market. A large denomination CD is a certificate issued by a bank as evidence that a certain amount of money has been deposited for a period of time—usually ranging from one to six months—and will be redeemed with interest at maturity. Eurodollars are dollar-denominated deposit liabilities of banks located outside the United States (or of International Banking Facilities in the United States). They can be either large CDs or nonnegotiable time deposits. U.S. banks raise funds in the Eurodollar market through their overseas branches and subsidiaries.

A final way banks raise funds in the money market is through repurchase agreements (RPs). An RP is a sale of securities with a simultaneous agreement by the seller to repurchase them at a later date. (For the lender—that is, the buyer of the securities in such a transaction—the agreement is often called a reverse RP.) In effect this agreement (when properly executed) is a short-term collateralized loan. Most RPs involve U.S. government securities or securities issued by government-sponsored enterprises. Banks are active participants on the borrowing side of the RP market.

A second important role of banks in the money market is as dealers in the market for over-the-counter interest rate derivatives, which has grown rapidly in recent years. Over-the-counter interest rate derivatives set terms for the exchange of cash payments based on subsequent changes in market interest rates. For example, in an interest rate swap, the parties to the agreement exchange cash payments to one another based on movements in specified market interest rates. Banks frequently act as middleman in swap transactions by serving as a counterparty to both sides of the transaction.

A third role of banks in the money market is to provide, in exchange for fees, commitments that help insure that investors in money market securities will be paid on a timely basis. One type of commitment is a backup line of credit to issuers of money market securities, which is typically dependent on the financial condition of the issuer and can be withdrawn if that condition deteriorates.

Another type of commitment is a credit enhancement—generally in the form of a letter of credit—that guarantees that the bank will redeem a security upon maturity if the issuer does not. Backup lines of credit and letters of credit are widely used by commercial paper issuers and by issuers of municipal securities.

GOVERNMENTS

The U.S. Treasury and state and local governments raise large sums in the money market. The Treasury raises funds in the money market by selling short-term obligations of the U.S. government called Treasury bills. Bills have the largest volume outstanding and the most active secondary market of any money market instrument. Because bills are generally considered to be free of default risk, while other money market instruments have some default risk, bills typically have the lowest interest rate at a given maturity. State and local governments raise funds in the money market through the sale of both fixed-and variable-rate securities. A key feature of state and local securities is that their interest income is generally exempt from federal income taxes, which makes them particularly attractive to investors in high income tax brackets.

CORPORATIONS

Nonfinancial and nonbank financial businesses raise funds in the money market primarily by issuing commercial paper, which is a short-term unsecured promissory note. In recent years an increasing number of firms have gained access to this market, and commercial paper has grown at a rapid pace. Business enterprises—generally those involved in international trade—also raise funds in the money market through bankers acceptances. A bankers acceptance is a time draft drawn on and accepted by a bank (after which the draft becomes an unconditional liability of the bank). In a typical bankers acceptance a bank accepts a time draft from an importer and then discounts it (gives the importer slightly less than the face value of the draft). The importer then uses the proceeds to pay the exporter. The bank may hold the acceptance itself or rediscount (sell) it in the secondary market.

GOVERNMENT-SPONSORED ENTERPRISES

Government-sponsored enterprises are a group of privately owned financial intermediaries with certain unique ties to the federal government. These agencies borrow funds in the financial markets and channel these funds primarily to the farming and housing sectors of the economy. They raise a substantial part of their funds in the money market.