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newly revised

REVISED EDITION

# money market

MARCIA STIGUM

**DOW JONES-IRWIN** 

Homewood, Illinois 60430

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From a Declaration of Principles jointly adopted by a Committee of the American Bar Association and a Committee of Publishers.

ISBN 0-87094-385-5 Library of Congress Catalog Card No 83-70057 Printed in the United States of America To the many market participants who gave, with grace and enthusiasm, their time that I might write this story.

## Preface to the first edition

THIS BOOK IS a comprehensive guide to the U.S. money market. It is intended for managers of short-term, fixed-income portfolios; for other corporate financial officers; for personnel in banks, dealerships, and other financial institutions; for people operating in the Eurodollar market, all of whom need to know about the U.S. money market; and for all others who have an interest in the market.

The book describes in detail the operations of money market banks and of money market dealers and brokers. It also describes the principles according to which a liquidity portfolio should be run and contrasts them with the way in which most such portfolios are in fact managed. With this background established, the book turns to the individual markets that comprise the money market. It describes for each such market the instrument traded, the risks, liquidity and return offered, and how the market is made by dealers, brokers, and investors.

The book presents an extensive description of the operation of the Eurodollar market. This market is really an extension of and thus an integral part of the U.S. money market. Therefore a description of the U.S. market would be incomplete without a thorough consideration of the Euromarket and of the interconnections between the two. Also the Euromarket offers interesting and inadequately understood opportunities to managers of short-term portfolios.

It is expected that many of the readers of this book will be relatively new to the money market. Part One provides all of the background needed by such readers to understand the rest of the book. It describes in simple terms what the instruments traded in the money market are, how yields on them are calculated, and how banks under the control of the Federal Reserve System create our money supply.

Much of the material in this book has never appeared in print before because surprisingly little has been written on the money market in recent times; and most of what has been written was incomplete to begin with and is currently out of date due to the rapidity with which change occurs in this innovative and fast-growing market.

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In every area of life, people develop special terms or give common terms special meanings in order to describe and to communicate with each other about their particular interests and activities; hence *jargon*. The money market is no exception, and this book uses money market jargon extensively. To aid the reader, each piece of jargon used is carefully defined the first time it appears in the text. Also, there is a Glossary at the end of the book in which a wide range of money market and bond market terms are defined.

A number of examples of simple money market calculations—such as determining equivalent bond yield on discount securities, "figuring the tail," and calculating profit on an arbitrage—are included in this book. Readers who need descriptions of key money market formulas and examples of how they can be used should refer to my other book, *Money Market Calculations: Yields, Break-Evens, and Arbitrage,* also published by Dow Jones-Irwin.

Part Two of this book begins with two chapters that describe respectively the domestic and Euromarket activities of commercial banks. Readers wanting an in-depth discussion of how banks should manage their assets and liabilities—domestic, Euro and foreign-currency denominated—should read Marcia Stigum and Ray Branch, *Managing Bank Assets and Liabilities: Strategies for Risk Control and Profit*, also published by Dow Jones-Irwin.

The pronoun he is used frequently throughout this book. It is my opinion that he has for years been used to mean person and that any attempt to avoid this use of the term leads to nothing but bad and awkward English.

In conclusion I would like to thank the many typists who have labored on this manuscript and in particular Mike Nagle who hunted up numbers and drew diagrams. I would also like to thank Loyola University of Chicago and Northwestern University for the support they gave me while I was researching and writing this book.

Marcia Stigum

# Preface to the revised edition

DURING THE FIVE YEARS that have passed since *The Money Market* was first published, this market has grown tremendously—in many areas by a factor of three—and it has undergone tremendous, sometimes traumatic, changes.

The single most important and wrenching change for the money market was the October 1979 shift in Fed policy. Prior to this shift, the Fed sought to achieve its goals by tightly controlling the level of the Fed funds rate; post shift, the Fed sought to achieve its then principal goal, lowering the rate of inflation, by controlling the growth of the money supply. In turning to monetarism, the Fed had no choice but to loosen its control over the Fed funds rate and thereby over the general level of interest rates. The upshot was that interest rates, short-term and long-term, reached previously unthinkable highs with respect to both level and volatility.

A second significant change that has marked the money market in recent years is growth in all sectors. Fueled by tax cuts, the impact of recession on federal receipts and expenditures, and other factors, Treasury deficits soared from the \$40-odd billion range to the \$90-plus billion range. The Treasury was thus forced to sell, often in chaotic markets, over 60% more marketable debt than it had five years previously. The Treasury's pattern of borrowing significantly more in the money market was followed by most other institutions. The big banks in particular borrowed and bought more money on all fronts; they increased their purchases of Fed funds, of repo money, and of Euros-the Euromarket having expanded between 1978 and 1983 from \$740 billion to almost \$2 trillion. It is impossible to put precise numbers on the size of the increase in bank borrowing in many markets, but two telling numbers are available: over the period the amounts of domestic CDs and Euro CDs issued by the big banks rose, respectively, 78% (from \$78 to \$139 billion) and 278% (from \$21 to \$79 billion).

Corporations, many of whom were big, cash-rich investors in the money market in 1977, were by 1983 more typically big, cash-poor

borrowers. This shift is indicated by three noticeable changes in the market over the period: BAs outstanding rose from \$25 to \$73 billion; commercial paper outstanding rose from \$65 to \$181 billion; and everywhere in the market, it was the cash-rich money funds, whose assets rose from \$10 billion in 1977 to a peak of \$280 billion in late 1982, who were gobbling up, with seemingly unlimited appetite, all the short paper they could find.

High and volatile rates combined with an expansion of borrowing on all sides called for major players in the money market to alter, often dramatically, their ways of operating in this market. To protect themselves against interest rate risk and to meet the demand of their ever more sophisticated customers, banks significantly altered the terms on which they were willing to lend to their major customers. At the same time banks moved in various ways to control more tightly their overall asset and liability management; some went through the wrenching adjustment of setting up a global (domestic plus Euro) book in an attempt to gain better control over the bank's total interest rate exposure and to ensure that every one of the bank's branches, domestic and foreign, worked to maximize not its profits, but the aftertax profits of the bank as a whole.

Money market dealers, faced with more volatile rates and *much* more paper, both to distribute and in which to make a secondary market, found themselves facing a rate risk that had gone up by a large but unquantifiable factor. In response they sought various ways to change how they did business. All sought to control position taking more tightly and to hedge—often in the explosively growing futures markets—the positions they did take; dealers also sought to find steady, dependable profit sources, ones that would lessen their need to depend on big positions plays for big profits. Despite the well-publicized failures of Drysdale and Lombard-Wall, most dealers managed to adjust successfully to the new market environment—to grow and to prosper in it.

As money market dealers grew in size, the business of money market brokers grew apace and then some. Brokers found they had vastly more business to do in their traditional lines of business: governments, Fed funds, Euros, and foreign exchange. In addition they began or expanded brokering operations in CDs, BAs, commercial paper, and muni notes.

High rates, volatile rates, and expanding volume were the major stimuli for the fast-paced and dramatic changes that have occurred in the money market in recent years. The market has also had to deal with many other changes and problems. The International Banking Act of 1978 altered the ground rules under which foreign banks could operate in the U.S. at the same time that New York was coming to rival London as a Eurocenter. The Banking Act of 1980 contained many important

changes for both banks and thrifts, and in particular it set the stage for rate deregulation. The Banking Act of 1982 hastened the demise of Reg Q ceilings and set the stage for the introduction of MMDA and of Super-NOW accounts, accounts that finally gave both banks and thrifts the means to effectively compete with money funds for deposits.

Euromarket changes both paralleled and were part of the money market changes we have already described. In addition the Euromarket in recent years experienced significant changes unique to it. On the plus side the Caribbean books of both U.S. and foreign banks grew tremendously in step with the expansion of New York as a Eurocenter. Also, both U.S. and foreign banks were permitted to open International Banking Facilities (IBFs), and they—particularly the Japanese banks—were quick to do so. On the negative side the Euromarket shuddered through the failure of the Luxembourg-based Banco Ambrosiano Holdings, and far worse, a series of souring country loans created fears that some of the world's top banks—and the Euromarket with them—might fail.

For no market or set of markets could five more eventful years have occurred or been imagined. This second edition of *The Money Market* provides a much needed updating of the picture of the market painted in the first edition. It describes all of the major changes that have occurred—the shift in Fed policy, the new markets, the new legislation and regulations, the growth, the difficulties and failures of prominent institutions and borrowers, and the adjustments major market players have made to the vastly changed environment in which they now must operate.

Final note. Readers who need descriptions of key money market formulas and examples of how they can be used should refer to my other book, *Money Market Calculations: Yields, Break-Evens, and Arbitrage,* also published by Dow Jones-Irwin. Readers wanting an in-depth discussion of how banks should manage their assets and liabilities—domestic, Euro, and foreign-currency-denominated—should read Marcia Stigum and Ray Branch, *Managing Bank Assets and Liabilities: Strategies for Risk Control and Profit,* also published by Dow Jones-Irwin.

In conclusion I would like to thank Frank Salvaterra and Arthur Hazlitt, who have spent countless hours hunting up numbers, drawing diagrams, and providing other help without which this revision could never have been completed.

Marcia Stigum Stratton Mountain, Vt.

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THERE WAS ONLY ONE WAY that research for this book could be conducted. That was by interviewing at length participants in every area of the market: in New York, London, Chicago, and elsewhere. During the months I spent originally studying the market and more recently reviewing it, everywhere I went I received incredible cooperation. People freely gave me hours of time, discussed their operations frankly and articulately, and then sent me on to others elsewhere in the market.

To all of these people, I would like to express a very heartfelt thanks for the patient and thoughtful answers they proffered to my many questions. A particular thank you goes to those who volunteered to read and criticize those chapters that covered their area of specialty. Needless to say, the author bears full responsibility for any remaining errors of fact, of which I hope there are few.

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### **Abbreviations**

THIS BOOK is replete with quotations, many of which contain "street" abbreviations of the names of various institutions. The most common are:

Bankers Trust Co	Bankers
Bank of America	B of A
Chase Manhattan Bank	Chase
Citibank	Citi
Merrill Lynch	Merrill
Manufacturers Hanover Trust Co	
Morgan Guaranty Trust Co	
Salomon Brothers	•

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