The Handbook of financial instruments

FRANK J. FABOZZI

EDITOR

John Wiley & Sons, Inc.

The Handbook of financial instruments

THE FRANK J. FABOZZI SERIES

Fixed Income Securities, Second Edition by Frank J. Fabozzi
Focus on Value: A Corporate and Investor Guide to Wealth Creation by James L. Grant and James A. Abate
Handbook of Global Fixed Income Calculations by Dragomir Krgin
Managing a Corporate Bond Portfolio by Leland E. Crabbe and Frank J. Fabozzi
Real Options and Option-Embedded Securities by William T. Moore
Capital Budgeting: Theory and Practice by Pamela P. Peterson and Frank J. Fabozzi
The Exchange-Traded Funds Manual by Gary L. Gastineau
Professional Perspectives on Fixed Income Portfolio Management, Volume 3 edited by Frank J. Fabozzi
Investing in Emerging Fixed Income Markets edited by Frank J. Fabozzi and Efstathia Pilarinu
Handbook of Alternative Assets by Mark J. P. Anson
The Exchange-Traded Funds Manual by Gary L. Gastineau
*The Global Money Markets*by Frank J. Fabozzi, Steven V. Mann, and Moorad Choudhry

The Handbook of financial instruments

FRANK J. FABOZZI

EDITOR

John Wiley & Sons, Inc.

Published by John Wiley & Sons, Inc., Hoboken, New Jersey
Published simultaneously in Canada

For general information on our other products and services, or technical support, please contact our Customer Care Department within the United States at 800-762-2974, outside the United States at 317-572-3993 or fax 317-572-4002.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

ISBN: 0-471-22092-2

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

contents

preface

One of the most important investment decisions that an investor encounters is the allocation of funds among the wide range of financial instruments. That decision requires an understanding of the investment characteristics of all asset classes. The objective of *The Handbook of Financial Instruments* is to explain financial instruments and their characteristics.

In Chapter 1, financial assets and financial markets are defined. Also explained in the chapter are the general characteristics of common stock and fixed-income securities, the properties of financial markets, the general principles of valuation, the principles of leverage, mechanisms for borrowing funds in the market using securities as collateral, and the role of derivative products.

Chapter 2 provides the fundamentals of investing. This is done in terms of the phases of the investment management process. The topics included in the chapter are traditional and alternative asset classes, how asset classes are determined, various types of risk, active versus passive portfolio management, and active versus indexed portfolio construction.

Chapter 3 explains the proper methodology for computing investment returns. Complications associated with calculating investment returns include selection of the appropriate inputs in the calculation, treatment of client contributions and withdrawals from an investment account, the timing of contributions and withdrawals, the difference between return earned by the investment manager on the funds invested and the return earned by the client, and how to determine annual returns from subperiod returns (e.g., different methods for averaging).

Equity, more popularly referred to as common stock, is the subject of Chapters 4 and 5. Chapter 4 describes the markets where common stock is traded, the types of trades that can be executed by retail and institutional investors (e.g., block trades and program trades), transaction costs, stock market indicators, the pricing efficiency of the equity market, common stock portfolio management, active portfolio management (e.g., top-down versus bottom-up approaches, fundamental versus technical analysis, popular active stock market strategies, and equity style management).

Where an investor can obtain information about the issuers of common stock and the type of information available is the subject of Chapter 5.

Chapters 6 through 20 cover fixed income products—money market instruments, Treasury securities (fixed principal and inflation indexed securities), federal agency securities, municipal securities, corporate bonds, preferred stock, emerging market debt, leveraged loans, and structured products. Structured products covered include agency mortgage-backed securities, nonagency mortgage-backed securities, real estate-backed asset-backed securities (e.g., home equity loan-backed securities and manufactured home loan-backed securities), commercial mortgage-backed securities, non-real estate-backed securities (e.g., credit card receivable-backed securities, auto loan-backed securities, Small Business Administration loan-backed securities, student loan-backed securities, aircraft lease-backed securities, and rate reduction bonds), and collateralized debt obligations.

Chapter 21 provides comprehensive coverage of investment companies, more popularly referred to as mutual funds. Topics covered are the types of investment companies, fund sales charges and annual operating expenses, multiple share classes, types of funds by investment objective, regulation of funds, the advantages and disadvantages of mutual funds, and alternatives to mutual funds. One alternative to a mutual fund is an exchange-traded fund. The advantages of an exchange-traded fund are explained Chapter 22, which also covers competitor products.

Stable value products are covered in Chapter 23. These products provide for a guaranteed return of principal at a contractually specified rate, the guarantee being only as good as the issuer of the contract. Examples include fixed annuities and traditional guaranteed investment contracts (GICs), separate account GICs, and bank investment contracts. Comprehensive coverage of investment-oriented life insurance products is provided in Chapter 24. These products include cash value life insurance (variable life, universal life, and variable universal life) and annuities (variable, fixed, and GICs). General account versus separate account products and the taxability of life insurance products are also discussed in the chapter.

Two major alternative asset classes are hedge funds and private equity. They are the subject of Chapters 25 and 26, respectively. The coverage of hedge funds includes regulation, strategies employed by hedge funds (e.g., long/short hedge funds, global macro hedge fund, short selling hedge funds, arbitrage hedge funds, and market neutral hedge funds), evidence on performance persistence, selecting a hedge fund manager, and the various aspects of due diligence. Private equity includes four strategies for private investing—venture capital (i.e., financing of start-up companies), leverage buyouts, mezzanine financing (hybrid of private debt and private equity), and distressed debt investing. Each of these strategies is reviewed in Chapter 26.

Real estate investment is covered in Chapter 27. The topics covered include the distinguishing features of real estate investments, the nature of the investors, components of the real estate investment universe (private equity, private debt, commercial mortgage-backed securities, and public equity) and their risk/return characteristics, the primary reasons to consider real estate in an investment portfolio, and how to bring real estate into a portfolio (i.e., execution).

Derivative instruments are covered in Chapters 28–31—futures/forward contracts, options, futures options, swaps, caps, and floors. The focus is on how these instruments can be employed to control risk. Chapter 28 covers equity derivatives and describes the fundamentals of pricing stock index futures and options on individual stocks. Chapter 29 is devoted to interest rate derivatives and how they are employed to control interest rate risk. Because of the unique investment characteristics of mortgage-backed securities, instruments are available that can be used by institutional investors to control the interest rate and prepayment risks associated with these securities and to obtain exposure to the market on a leveraged basis. These products, mortgage swaps, are described in Chapter 30. In addition to controlling interest rate risk, investors are concerned with credit risk. Instruments for controlling this risk, credit derivatives, are explained in Chapter 31.

Managed futures, an alternative asset class, is the subject of Chapter 32. The term managed futures refers to the active trading of futures and forward contracts. The underlying for the futures/forward contracts traded can be financial instruments (stock indexes or bonds), commodities, or currencies (i.e., foreign exchange).

The Handbook of Financial Instruments provides the most comprehensive coverage of financial instruments that has ever been assembled in a single volume. I thank all of the contributors to this book for their willingness to take the time from their busy schedules to contribute.

Frank J. Fabozzi

contributing authors

William J. Adams	Massachusetts Financial Services
Mark J. P. Anson	CalPERS
John B. Brynjolfsson	PIMCO Real Return Bond Fund
John R. Caswell	Galliard Capital Management
Moorad Choudhry	City University Business School
Bruce M.Collins	QuantCast
Joseph F. DeMichele	Delaware Investments
John Dunlevy	Beacon Hill Asset Management
Frank J. Fabozzi	Yale University
Bruce Feibel	Eagle Investment Systems
Michael J. Fleming	Federal Reserve Bank of New York
Gary L. Gastineau	ETF Advisors, LLC
Laurie S. Goodman	UBS Warburg
Duane C. Hewlett	Delaware Investments
Susan Hudson-Wilson	Property & Portfolio Research, LLC
Robert R. Johnson	Association for Investment Management and Research
Frank J. Jones	The Guardian Life Insurance Company of America
George P. Kegler	Cassian Market Consultants
Maria Mednikov Loucks	UBS Asset Management
Steven V. Mann	University of South Carolina
John N. McElravey	Banc One Capital Markets, Inc.
Steven Miller	Standard & Poor's
John A. Penicook, Jr.	UBS Asset Management
Pamela P. Peterson	Florida State University
Uwe Schillhorn	UBS Asset Management
Karl P. Tourville	Galliard Capital Management
David Yuen	Franklin Templeton Investments
Thomas A. Zimmerman	UBS Warburg