

T H E MODERN

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THEORY

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SECOND **OF** EDITION

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CORPORATE

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CLIFFORD W. SMITH, JR.

THE MODERN THEORY OF CORPORATE FINANCE

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

ISBN 0-07-059109-1

See Acknowledgments on pages ix-xi. Copyrights included on this page by reference.

This book was set in Times Roman by Jay's Publishers Services, Inc.

The editors were Suzanne BeDell and Linda Richmond;

the production supervisor was Diane Renda.

The cover was designed by Karen Quigley.

R. R. Donnelley & Sons Company was printer and binder.

Library of Congress Cataloging - in- Publication Data

The Modern Theory of Corporate Finance / edited by Clifford W. Smith, Jr.: with the assistance of North-Holland Publishing Company- -2nd ed.

p. cm. - (McGraw Hill series in finance)

Includes bibliographies.

ISBN 0-07-059109-1

1. Corporations - -Finance I. Smith, Clifford W. II. North-Holland Publishing Company.

III. Series.

HG4026.5.M62 1989

658.15 - - dc20

89-8167

THE MODERN THEORY OF CORPORATE FINANCE

SECOND EDITION

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*With the assistance of
North-Holland Publishing Company*

McGRAW-HILL PUBLISHING COMPANY

New York St. Louis San Francisco Auckland Bogotá Caracas
Hamburg Lisbon London Madrid Mexico Milan
Montreal New Delhi Oklahoma City Paris San Juan
São Paulo Singapore Sydney Tokyo Toronto

ACKNOWLEDGMENTS

The editor wishes to thank the following authors for permission to reprint their articles:

Randolph P. Beatty, The Wharton School, University of Pennsylvania
Fischer Black, Goldman, Sachs & Co., New York
James A. Brickley, William E. Simon Graduate School of Business Administration, University of Rochester
Larry Y. Dann, College of Business Administration, University of Oregon
Harry DeAngelo, Graduate School of Business Administration, University of Michigan, Ann Arbor
Frank H. Easterbrook, The Law School, University of Chicago
Eugene F. Fama, Graduate School of Business, University of Chicago
Christopher James, College of Business Administration, University of Oregon
Gregg A. Jarrell, William E. Simon Graduate School of Business Administration, University of Rochester
Michael C. Jensen, Graduate School of Business Administration, Harvard University
Ramon E. Johnson, Graduate School of Business, University of Utah
Avner Kalay, Graduate School of Business, University of Utah
Ronald C. Lease, A. B. Freeman School of Business, Tulane University
Nicholas S. Majluf, Engineering and Systems Department, Pontificia-Catholic University of Chile
Ronald W. Masulis, Edwin L. Cox School of Business, Southern Methodist University
John J. McConnell, Krannert School of Management, Purdue University
William H. Meckling, William E. Simon Graduate School of Business Administration, University of Rochester
Stewart C. Myers, Sloan School of Management, Massachusetts Institute of Technology
Jeffry M. Netter, Economics Department, University of Georgia, Athens

X ACKNOWLEDGMENTS

Krishna Ramaswamy, The Wharton School, University of Pennsylvania
Jay R. Ritter, Graduate School of Business Administration, University of Michigan, Ann Arbor
Richard S. Ruback, Graduate School of Business Administration, Harvard University
James S. Schallheim, Graduate School of Business, University of Utah
Suresh M. Sundaresan, Graduate School of Business, Columbia University
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Joseph D. Vu, College of Business Administration, University of Illinois, Chicago
Lee M. Wakeman, Capital Markets Group, Chemical Bank, New York
Jerold B. Warner, William E. Simon Graduate School of Business Administration, University of Rochester

The editor wishes to acknowledge the sources of the articles in this volume as follows:

American Economic Association:

Frank H. Easterbrook, "Two Agency-Cost Explanations of Dividends," *American Economic Review*, vol. 74, no. 4, September 1984, pp. 650–659.

Eugene F. Fama, "The Effect of a Firm's Investment and Financing Decisions on the Welfare of Its Security Holders," *American Economic Review*, vol. 68, no. 3, June 1978, pp. 272–284.

Gregg A. Jarrell, James A. Brickley and Jeffry M. Netter, "The Market for Corporate Control: The Empirical Evidence Since 1980," *Journal of Economic Perspectives*, vol. 2, no. 1, Winter 1988, pp. 49–68.

Michael C. Jensen, "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers," *American Economic Review*, vol. 76, no. 2, May 1986, pp. 323–329.

American Finance Association:

Clifford W. Smith, Jr., and Lee M. Wakeman, "Determinants of Corporate Leasing Policy," *Journal of Finance*, vol. 40, no. 3, July 1985, pp. 895–908.

Jerold B. Warner, "Bankruptcy Costs: Some Evidence," *Journal of Finance*, vol. 32, no. 2, May 1977, pp. 337–348.

Chase Manhattan Bank:

L. Macdonald Wakeman, "The Real Function of Bond Rating Agencies," *Chase Financial Quarterly*, vol. 1, no. 1, Fall 1981, pp. 18–26.

Institutional Investor:

Fischer Black, "The Dividend Puzzle," *Journal of Portfolio Management*, vol. 2, Winter 1976, pp. 5–8. Copyright © by Institutional Investor, Inc.

North-Holland Publishing Company:

Randolph P. Beatty and Jay R. Ritter, "Investment Banking, Reputation, and the Underpricing of Initial Public Offerings," *Journal of Financial Economics*, vol. 15, nos. 1/2, January/February 1986, pp. 213–232.

James A. Brickley, "Shareholder Wealth, Information Signaling and the Specially Designated Dividend: An Empirical Study," *Journal of Financial Economics*, vol. 12, no. 2, August 1983, pp. 187–209.

Larry Y. Dann, "Common Stock Repurchases: An Analysis of Returns to Bondholders and Stockholders," *Journal of Financial Economics*, vol. 9, no. 2, June 1981, pp. 113–138.

Harry DeAngelo and Ronald W. Masulis, "Optimal Capital Structure Under Corporate and Personal Taxation," *Journal of Financial Economics*, vol. 8, no. 1, March 1980, pp. 3–29.

Christopher James, "Some Evidence on the Uniqueness of Bank Loans," *Journal of Financial Economics*, vol. 19, no. 2, December 1987, pp. 217–235.

Michael C. Jensen and William H. Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure," *Journal of Financial Economics*, vol. 3, no. 4, October 1976, pp. 305–360.

Michael C. Jensen and Richard S. Ruback, "The Market for Corporate Control: The Scientific Evidence," *Journal of Financial Economics*, vol. 11, nos. 1–4, April 1983, pp. 5–50.

Avner Kalay, "Stockholder-Bondholder Conflict and Dividend Constraints," *Journal of Financial Economics*, vol. 10, no. 2, July 1982, pp. 211–233.

Ronald W. Masulis, "The Effects of Capital Structure Change on Security Prices: A Study of Exchange Offers," *Journal of Financial Economics*, vol. 8, no. 2, June 1980, pp. 139–177.

Stewart C. Myers, "Determinants of Corporate Borrowing," *Journal of Financial Economics*, vol. 5, no. 2, November 1977, pp. 147–175.

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Krishna Ramaswamy and Suresh M. Sundaresan, "The Valuation of Floating-Rate Instruments: Theory and Evidence," *Journal of Financial Economics*, vol. 17, no. 2, December 1986, pp. 251–272.

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Clifford W. Smith, Jr., "Applications of Option Pricing Analysis," in James L. Bicksler, ed., *Handbook of Financial Economics*, North-Holland Publishing Company, Amsterdam, 1979, pp. 79–121.

Clifford W. Smith, Jr., "Investment Banking and the Capital Acquisition Process," *Journal of Financial Economics*, vol. 15, nos. 1/2, January/February 1986, pp. 3–29.

Clifford W. Smith, Jr., and Jerold B. Warner, "On Financial Contracting: An Analysis of Bond Covenants," *Journal of Financial Economics*, vol. 7, no. 2, June 1979, pp. 117–161.

René M. Stulz, "Managerial Control of Voting Rights: Financing Policies and the Market for Corporate Control," *Journal of Financial Economics*, vol. 20, nos. 1/2, January/March 1988, pp. 25–54.

Joseph D. Vu, "An Empirical Investigation of Calls of Non-Convertible Bonds," *Journal of Financial Economics*, vol. 16, no. 2, June 1986, pp. 235–265.

I would like to thank Michael C. Jensen, my coauthor on the first edition of this introduction and my coeditor on the first edition of this book, for his input and assistance. Unfortunately, too many commitments and too many miles precluded our collaboration on this edition.

McGraw-Hill and the editor also wish to thank the following reviewers for their many helpful comments and suggestions: Ronald Lease, Tulane University; Ronald Masulis, Southern Methodist University; Edward Rice, University of Chicago; and Ehud Ronn, University of Chicago.

Clifford W. Smith, Jr.

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ONE

INTRODUCTION

The Theory of Corporate Finance: A Historical Overview

Clifford W. Smith, Jr.*

1 INTRODUCTION

My purpose is to provide a brief review of the development of the modern theory of corporate finance as a general background for the articles included in this book. The finance literature through the early 1950s consisted in large part of ad hoc theories and institutional detail, but little systematic analysis. For example, Dewing (1919; 1953), the major corporate finance textbook for generations, describes the birth of a corporation and follows it through various policy decisions to its death (bankruptcy). Corporate financial theory prior to the 1950s was riddled with logical inconsistencies and was almost totally prescriptive, that is, normatively oriented. The major concerns of the field were optimal investment, financing, and dividend policies, but little consideration was given to the effects of individual incentives, or to the nature of equilibrium in financial markets.

The theory of financial markets in the 1950s was in the same undeveloped state as the theory of corporate finance. Portfolio theory was in its infancy, and the pricing and other implications of equilibrium in financial markets were largely ignored. The leading book on security analysis, Graham/Dodd (1951), describes how to “pick winners” by analyzing the firm’s assets, earnings, dividends, and so on. Questions such as how those winners are formed into portfolios, or how such analysis could consistently succeed given the widespread competition among investors for undervalued securities were not usually addressed.

In the 1950s, fundamental changes in finance began to occur. The analytical methods and techniques traditional to economics began to be applied to problems in finance, and the resulting transformation has been significant. This evolution was accompanied by a change in the focus of the literature from normative questions such as “What should investment, financing, or dividend policies be?” to positive theories addressing questions such as “What are the effects of alternate investment, financing, or dividend policies on the value of the firm?” This shift in research emphasis was necessary to provide the scientific basis for the formation and analysis of corporate policy decisions.

The logical structure of decision making implies that better answers to normative questions are likely to occur when decision makers have a richer set of positive theories that provide a better understanding of the consequences of their choices. This impor-

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tant relation between normative and positive theories often goes unrecognized. Purposeful decisions cannot be made without the explicit or implicit use of positive theories. Managers cannot decide what action to take and expect to meet their objective if they have no idea about how alternative actions affect the desired outcome—and that is what is meant by a positive theory.¹ For example, to choose among alternative financial structures, a manager wants to know how the choices affect expected net cash flows, the level of risk, and therefore the effect on firm value. Using incorrect positive theories leads to decisions that have unexpected and undesirable outcomes.

2 FUNDAMENTAL BUILDING BLOCKS

The years since 1950 have witnessed the formulation of the major building blocks of the modern theory of financial economics:

Efficient Markets Theory—analysis of the behavior of price changes through time in speculative markets.

Portfolio Theory—analysis of optimal security selection procedures for an investor's portfolio of securities.

Capital Asset Pricing Theory—analysis of the determinants of asset prices under conditions of uncertainty.

Option Pricing Theory—analysis of the determinants of the prices of contingent claims such as call options and corporate bonds.

Agency Theory—analysis of the control of incentive conflicts in contractual relations.

The development of a body of theory addressing these questions has evolved over time in roughly this order. Here, I briefly summarize them with emphasis on aspects central to corporate financial policy.

2.1 Efficient Markets Theory

The efficient markets hypothesis holds that a market is efficient if it is impossible to make economic profits by trading on available information. Cowles (1933) documents the inability of 45 professional agencies to forecast stock price changes. Other early work in the field by statisticians such as Working (1934), Kendall (1953), and Osborne (1959, 1962) document that stock and commodity prices behave like a random walk; that is, stock price changes behave as if they were independent random drawings. This means that technical trading rules based on information in the past price series cannot be expected to produce above-normal returns.

Samuelson (1965) and Mandelbrot (1966) provide the modern theoretical rationale behind the efficient markets hypothesis that unexpected price changes in a speculative market must behave as independent random drawings if the market is competitive and

¹Jensen (1983) provides an extended discussion of these and other methodological issues.

economic trading profits are zero.² They argue that unexpected price changes reflect new information. Since new information by definition is information that cannot be deduced from previous information, new information must be independent over time. Therefore, unexpected security price changes must be independent through time if expected economic profits are to be zero. In the economics literature, this hypothesis has been independently developed by Muth (1961). Termed the rational expectations hypothesis, it has had a dramatic impact on macroeconomic analysis.

The efficient markets hypothesis is perhaps the most extensively tested hypothesis in all the social sciences. An important factor leading to the substantial body of empirical evidence on this hypothesis is the data made available by the establishment of the Center for Research in Security Prices (CRSP) sponsored by Merrill Lynch at the University of Chicago. The center created accurate computer files of closing prices, dividends, and capital changes for all stocks on the New York and American stock exchanges and the National Association of Security Dealers Automated Quotation (NASDAQ) System. Consistent with the efficient markets hypothesis, detailed empirical studies of stock prices indicate that it is difficult to earn above-normal profits by trading on publicly available data because it is already incorporated in security prices. Fama (1976) reviews much of the evidence. However, the evidence is not completely one-sided; see, for example, Jensen (1978), who provides a review of some anomalies.

If capital markets are efficient, then the market value of the firm reflects the present value of the firm's expected future net cash flows, including expected cash flows from future investment opportunities. Thus the efficient markets hypothesis has several important implications for corporate finance. First, there is no ambiguity about the firm's objective function—managers should maximize the current market value of the firm.³ Hence management does not have to choose between maximizing the firm's current value or its future value, and there is no reason for management to have a time horizon that is too short. Second, there is no benefit to manipulating earnings per share. Management decisions that increase earnings but do not affect cash flows represent wasted effort. Third, if new securities are issued at market prices which reflect an unbiased assessment of future payoffs, then concern about dilution or the sharing of positive net present value projects with new securityholders is eliminated. Fourth, security returns are meaningful measures of firm performance. This allows scholars to use security returns to estimate the effects of various corporate policies and events on the market value of the corporation. Beginning with the Fama/Fisher/Jensen/Roll (1969) analysis of the effect of stock splits on the value of the firm's shares, empirical research examining abnormal stock price changes has produced a rich array of evidence to augment positive theories in corporate finance. In Section 6, I mention a few of the recent contributions from studies of stock price reactions to announcements of financing decisions, payout policy decisions, and corporate control transactions.

²Probably the first to characterize pricing in security markets as efficient was Bachelier (1900). Although he anticipated the efficient markets hypothesis and developed models describing the pricing of options and the distribution of price changes, his work went largely unnoticed for more than 50 years.

³For securityholders to prefer value maximization also requires that their consumption opportunities are altered by the firm's investment and financing decisions only through wealth changes.