Introduction to Financial Management

Lawrence D. Schall and Charles W. Haley

Introduction to Financial Management

Second Edition

Lawrence D. Schall / Charles W. Haley

Professors of Finance, University of Washington

McGraw-Hill Book Company

New York St. Louis San Francisco Auckland Bogotá Hamburg Johannesburg London Madrid Mexico Montreal New Delhi Panama Paris São Paulo Singapore Sydney Tokyo Toronto

INTRODUCTION TO FINANCIAL MANAGEMENT

Copyright © 1980, 1977 by McGraw-Hill, Inc. All rights reserved. Printed in the United States of America. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher.

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

This book was set in Times Roman by Progressive Typographers. The editors were Bonnie E. Lieberman, Marjorie Singer, and Elisa Adams; the design was done by Caliber Design Planning; the production supervisor was Dominick Petrellese. New drawings were done by J&R Services, Inc.

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

Library of Congress Cataloging in Publication Data

Schall, Lawrence D

Introduction to financial management.

(McGraw-Hill series in finance)

Bibliography: p.

Includes index.

1. Corporations-Finance. I. Haley, Charles W.,

joint author. II. Title.

HG4011.S33 1980 658.1'5 79-21761

ISBN 0-07-055100-6

PREFACE

In this second edition our primary goal is again to provide students with a thorough foundation in finance. For many students the introductory course is the only exposure to finance, and we cover all the material that we believe is essential to a comprehensive understanding of financial management. Although the text covers a wide range of topics and issues, we have treated the material at an introductory level in all cases. Our method has been to explain the main issues very carefully in order to provide the student with an intuitive understanding of finance concepts and an appreciation of the way those concepts are applied in practice.

The text does not neglect students who will be taking additional courses in finance. Basic principles, techniques, and institutional aspects needed for effective analysis of business finance cases are well covered. A foundation for more advanced theoretical courses is provided in the chapter appendixes and in the more difficult problems, and we have tried to ensure that our approach here is consistent with current theory. Students completing a course of study using this book should be well prepared for courses in investments because of our stress on risk and return in the financial markets and our coverage of the basic characteristics of securities and markets.

The book is designed for undergraduate one-quarter or one-semester courses. If supplemented by cases and readings, however, it will be suitable as the primary text for courses extending two quarters or more. Instructors using this text for an introductory course for MBA students will find that the appendixes to Chapters 5 through 9 enable them to approach basic finance on a more advanced level.

We have made a special effort to provide an integrated discussion of the topics covered. Nevertheless, the book has been designed to offer great flexibility in choosing the order of presentation of most chapters. Furthermore, many chapters have one or more sections that can be deleted without any loss of continuity. Appendixes in several chapters explore major concepts in greater depth. These are intended as supplements to the basic coverage in the text and are designed for use by well-prepared undergraduate and beginning graduate students.

The first five chapters provide an introduction to the book and an introduction to finance in general. In Part 1 we examine the general nature of financial management, the financial system, taxes, the choice of business organization, compound-interest calculations, risk, and the principles of market valuation.

Parts 2 through 4 cover the basic concepts and techniques of financial management. Part 2 is concerned with long-term decisions involving investments and financing, including dividend policy. Part 3 explores techniques of financial analysis, including ratio analysis, funds flow, break-

even analysis, and forecasting. Part 4 deals with the problems of managing the firm's current assets and current liabilities. The discussion in Part 4 is unusual in that the firm's working capital decisions are explicitly linked to the discussion of long-term investment and financing decisions in Part 2.

Parts 5 and 6 provide supplementary material that is often not covered in an introductory course. Part 5 offers a detailed discussion of the characteristics of the different securities issued by business firms and the procedures for issuing securities. Part 6 covers special topics including mergers and acquisitions, international financial management, and business bankruptcy.

CHANGES IN THE SECOND EDITION

This edition reflects several improvements over the first edition. They include:

- 1. An increase in clarity and additions of new explanatory material. The entire text was examined and changes were made to increase clarity of presentation. Treatment of existing topics was expanded and new sections were added wherever we felt that they would significantly further the student's understanding of the subject. Major changes have been made in Chapters 3, 5, 7, 9, 10, 11, 12, and 13.
- 2. Revised problems. Many new problems were added, especially problems of intermediate difficulty.
- 3. New interchapter essays. About half the essays are new to this edition and most of the remaining ones have been revised.
- 4. General updating. The text reflects more recent data, laws, and management practices.
- 5. A substantial revision of the section on working capital management. This section is now organized as a separate part, with a new chapter providing an overview and summary of the problems of working capital management. The discussion of cash management in Chapter 14 has been significantly expanded.

TEXT ORGANIZATION AND SUPPLEMENTARY MATERIALS

Although this book has been written to offer substantial latitude in selecting which chapters to cover and their order of presentation, we suggest that certain chapters be taught in a given order. Chapters 4, 5, 6, 7, 9, 11, 13, and 14 are prerequisites for certain other chapters. Specifically, Chapter 4 should precede Chapter 5, and Chapters 4 and 5 should precede all of Part 2 (Chapters 6 through 10). We recommend that the chapters in Part 2 be taught in sequence. However, these chapters can be rearranged to suit the needs of the individual instructor. A complete discussion of the possibilities for alternative sequences is included in the *Instructor's Manual* for the text. Many instructors may choose to assign Chapters 11, 12, and

13—which cover financial statement analysis, break-even analysis, and forecasting, respectively—early in the course. This can be done with no difficulty, although the discussion of financial leverage in Chapter 12 is most effectively taught if it is presented after Chapter 9. A sequence that we find quite workable in one quarter consists of Chapters 1 through 9, 11, 13 through 16, and one or more of Chapters 17, 18, and 22; other chapters can be intermingled with these.

Students come to the basic finance course with a wide range of prior preparation in accounting, mathematics, and economics. We have assumed minimal background in these areas, but we do expect that students have had at least one quarter of accounting shortly before taking the class. Able students should be capable of mastering the material almost without regard to their previous formal course work. We have tried to make the book as self-contained as possible and, through extensive use of examples, to make it suitable for self-study.

As an aid to students, many instructors recommend a study guide when such is available. The *Study Guide* written by Thomas E. Stitzel serves as an excellent review and supplement to this book. It contains additional solved problems as well as questions in a programmed learning format. We believe that many students will find this supplement helpful.

The *Instructor's Manual* includes a substantial amount of supplementary teaching material, as well as recommended course outlines, a test bank, transparency masters, and answers to text questions and problems.

Many people have aided us in this project. Our students provided us with numerous comments that have resulted in substantial improvements over earlier versions of the text. Colleagues at the University of Washington and elsewhere have reviewed drafts of the manuscript, and we are very grateful for their help. Our thanks go to Henry H. Barker of Purdue University; William J. Bertin of Kent State University; Stephen G. Buell of Lehigh University; Jess Chua of Oklahoma State University; Eugene F. Drzycimski of the University of Wisconsin; James F. Feller of the University of South Florida; John K. Ford of Northeastern University: John H. Hand of Auburn University; George W. Hettenhouse of Indiana University; Lee Hoover of Iowa State University; Michael H. Hopewell of the University of Oregon; James Hugon of Portland State University: F. Lee Hull of California State University, Fresno; Gene Laber of the University of Vermont; John B. Major of California State University, Hayward; Rita M. Maldonado-Bear of New York University; Robert McGee of Babson College; Allen Michel of Boston University; Donald A. Nast of Florida State University; Robert T. Patton of Western Washington State University; Gerald W. Perritt of Florida International University; Michael Rice of the University of North Carolina; Ralph Ringgen-

ACKNOWL-EDGMENTS

berg of the University of Colorado: William L. Scott of the University of Texas, San Antonio; Bernard A. Shinkel of Wayne State University; Donald G. Simonson of the University of New Mexico; Timothy Sullivan of Baruch College; James A. Verbrugge of the University of Georgia; Ernest W. Walker of the Univerity of Texas, Austin; Francis Yeager of the University of Houston; and J. Kenton Zumwalt of the University of Illinois, Urbana. We are indebted to Charles D'Ambrosio, who provided us encouragement and advice throughout the development of the book and helped us at numerous junctures. Charles Henning gave us special assistance with the international finance materials and provided us with an initial draft of Chapter 22. Betty Ross provided us important advice and assistance in the preparation of the new Chapter 24 material. Jean-Claude Bosch, Gregg Brauer, Susan Doolittle, Keith Hauschulz, Charles Lapp, John Settle, and Kaj Svarrer developed many of the end-of-chapter questions and problems and provided us with helpful suggestions for the text material. We would also like to thank Anne Delger and David Dubofsky for proofreading a major portion of the final manuscript.

The editorial staff at McGraw-Hill has been a critical resource for us. Marjorie Singer carefully read the entire manuscript and made numerous suggestions for improving the clarity of the text. We owe her a tremendous debt for the increase in quality that resulted from her advice and prodding, in both the first and the second editions of the book. Bonnie Lieberman and Elisa Adams also contributed in important ways to this effort. Finally, the book could not have been written without the support of Anne Haley.

LAWRENCE D. SCHALL CHARLES W. HALEY

CONTENTS

Preface PART 1	XV
The Environment of Financial Decisions	
chapter 1 Financial Management and Goals	3
The Corporate Objective The Key Role of Finance Finance as a Discipline The Organization of This Book Summary	4 9 11 12 13
chapter 2 The American Financial System: An Overview	14
Services Provided by the Financial System Financial Institutions Financial Markets and Securities Interest Rates Summary Questions Project	15 20 27 34 36 37 38
chapter 3 Taxes and Business Organization	39
Business Organization The Federal Income Tax Summary Questions Project Problems Appendix 3A: Calculating Depreciation Allowances	39 43 54 56 56 56 56
A History of Finance	61

chapter 4	
The Time Value of Money	67
Why Money Has Time Value	67
Basic Concepts	68
Solving Problems when the Interest Rate Is Known	82
Finding an Unknown Interest Rate	88
Summary	96
Questions	98
Project	98
Problems	99
Appendix 4A: Formulas and Computational Methods	104
chapter 5	
Risk and Value	110
Prices and Present Values	111
What Is Risk?	114
Measuring Risk	117
The Impact of Risk on Value	126
Summary	138
Questions	139
Projects	140
Problems	141
Appendix 5A: Diversification and Correlation	147
Appendix 5B: A Model of Risk and Return in the	
Security Market	150
Appendix 5C: The Constant Growth Formula	154
Beating the Odds: The Theory of Efficient Markets	156
PART 2	
The Firm's Investment, Financing, and Dividend Decisions	_
chapter 6	
The Cost of Capital	163
The Average Cost of Capital	163
Determining the Cost Rates	166

vi

Determining the Proportions Calculation of an Average Cost of Capital Summary Questions Project Problems Appendix 6A: Using the SML to Estimate the Rate on Common Stock	173 174 177 177 178 179
chapter 7	407
Fundamentals of Capital Budgeting	187
The Capital Budgeting Process	187
Cash Flow from an Investment	189
Evaluation Techniques	192
Industry Use of Capital Budgeting Techniques	206
Example Problems	208 213
Special Problems in Investment Analysis Capital Rationing	213
Summary	226
Questions	228
Project	229
Problems	229
Appendix 7A: Why an Investment's Net Present Value Equals Its Benefit to Current Stockholders Appendix 7B: Chainea between Mutually Evaluaive	246
Appendix 7B: Choices between Mutually Exclusive Investments: Internal Rate of Return versus Present Value	250
Investing Where It Counts: Rates of Return on Alternative Investments	257
chapter 8	
Risk Analysis and Capital Budgeting	261
Probability Distributions and Cash Flow Analysis	261
Project Risk and Project Evaluation	269
Computer Simulation: Estimating and Evaluating	
Cash Flows	283
Risk Evaluation and Decision Tree Analysis	285
Summary	285
Questions	287
	vii

Project Problems Appendix 8A: The Determinants of Project Risk, Risk Ranking, and Computing a Risk-Adjusted Discount Rate Appendix 8B: Certainty Equivalents and Risk-Adjusted Discount Rates Appendix 8C: Decision Tree Illustration	288 288 297 303 305
chapter 9 Financing Decisions and Capital Structure	309
Characteristics of Financing Methods Analyzing External Financing Methods Retained Earnings and Internal Funds The Impact of Financing on Investment Summary Questions Project Problems Appendix 9A: The Modigliani-Miller Analysis of Capital Structure and Value	309 314 334 336 340 341 342 342
Inflation	355
chapter 10 Dividend Policy and Retained Earnings	357
The Dividend Payment Procedure Factors Affecting the Dividend Decision The Firm's Dividend Policy Dividend Reinvestment and Other	357 359 363
Benefit Plans Stock Dividends and Stock Splits Summary Questions Projects Problems	370 371 375 376 377 377

比为试读,需要完整PDF请访问: www.ertongbook.com

viii

PART 3

Financial Analysis and Forecasting	
chapter 11	
Financial Statement Analysis	387
Financial Statements	387
Ratio Analysis	388
Du Pont System	408
Sources of Information on Firm and Industry Ratios	411
The Purposes of Ratio Analysis	412
Funds Flow Analysis	413
Summary	419
Questions	420 422
Project Problems	422 422
Froblems	422
Are Financial Statements Reliable?	433
chapter 12	
Break-Even Analysis and the	
Measurement of Leverage	436
Break-Even Analysis	436
The Concept of Leverage	446
Summary	453
Questions	454
Project	455
Problems	455
chapter 13	
Financial Forecasting and Planning	459
Forecasting Single Financial Variables	460
Financial Forecasting	465
Financial Plans and Budgets	474
Summary	476
Questions	477
Project	477
Problems	477

ix

PART 4

Chapter 14 Current Asset Management 489 Principles of Current Asset Investment 490 Inventory 493 Managing Accounts Receivable 507 Cash Management 514) 3 7 4 2 3 5 6
Current Asset Management 489 Principles of Current Asset Investment 490 Inventory 493 Managing Accounts Receivable 507) 3 7 4 2 3 5 6
Inventory 493 Managing Accounts Receivable 507	3 7 4 2 3 5 5
Inventory 493 Managing Accounts Receivable 507	7 1 2 3 5
	1 2 3 5 5 5
Cash Management 514	2 5 5
e e e e e e e e e e e e e e e e e e e	5
Summary 522	<u>,</u>
Questions 523	Ó
Projects 525	
Problems 526	ì
Appendix 14A: The Economic Order	١.
Quantity Model 533	
Electronic Banking 535	5
chapter 15	
Short-Term Financing 537	,
Major Sources of Short-Term Financing 537	7
Secured Borrowing 547	
Summary 551	
Questions 552	
Project 554	_
Problems 554	-
chapter 16	
Working Capital Management 557	,
Working Capital: Definitions 557	,
The Working Capital Decision 558	
Working Capital and	
Business Expansion 565	
Summary 567	
Questions 568 Project 569	
Project 569 Problems 569	

PART 5

chapter 17 Raising Intermediate- and Long-Term Funds General Decisions in Raising Funds 575
Long-Term Funds 575 General Decisions in Raising Funds 575
General Decisions in Raising Funds 575
Public Securities Issues and Investment Banking 577
Private Placement 584 Summary 591
Questions 591
Project 592
Problems 592
Venture Capital 595
chapter 18
Leasing 597
Who Provides Leases? 597
Types of Leases 598
Lease or Buy Analysis 601
Other Considerations 606 Summary 611
Questions 612
Project 613
Problems 613
chapter 19
Common Stock 617
Rights and Privileges of Stockholders 618
Stockholder Voting 622
Issuing New Shares 624
Repurchasing Stock 632 The Listing of Stock 635
Summary 635
Questions 636
Project 638
Problems 638

χi

chapter 20 Long-Term Debt and Preferred Stock	6/1
_	
Long-Term Debt Preferred Stock	642
The Refunding Decision	654 659
Summary	663
Questions	664
Project	664
Problems	664
chapter 21	
Convertibles and Warrants	667
Convertibles	667
Warrants	674
Summary	679
Questions Project	680
Problems	681 681
Trocens	001
Options	684
PART 6	
Special Topics	
chapter 22	
Holding Companies, Mergers,	
and Consolidations	689
Holding Companies	689
Mergers and Consolidations	691
Summary	708
Questions	709
Project Problems	710
FIGUREIIIS	710
The Merger Game	713
••	

Χij

chapter 23	
International Financial Management	716
Currencies and Exchange Rates	717
Financing International Trade	722
The Multinational Company	727
Summary	735
Questions	736
Project	737
Problems	737
chapter 24	
Firm Failure, Reorganization,	
and Liquidation	740
Definition of Failure	740
Frequency and Causes of Failure	742
Voluntary Remedies for Financial Distress	742
Business Reorganization Plans	744
Liquidation	749
Summary	753
Questions	754
Project	755
Problems	755
appendix A:	
Sources of Financial Information	759
appendix B:	
Interest Tables	765
Suggested Readings	787
Glossary	795
_	
Index	813



THE ENVIRONMENT OF FINANCIAL DECISIONS

Part 1 consists of five chapters in which we present the general background for individual and company financial decisions. Chapter 1 is an introduction to business finance and to this text. Here we discuss the nature and objectives of financial management. In Chapter 2 we examine the American financial system: the network of financial institutions and markets that is an important part of the financial manager's environment. Chapter 3 covers other aspects of this environment, the legal form of business organizations and the tax laws that affect financial decisions. Whereas the material in the first three chapters is largely descriptive, in Chapter 4 we develop a fundamental financial concept, the time value of money. We show here how to solve a variety of basic financial problems involving time and money. In Chapter 5 we discuss a second fundamental concept, risk, and show how risk affects the value of financial assets.

The material in Part 1 is important not just to the managers of business firms. Most of the topics covered are of equal importance to an individual concerned with such financial problems as borrowing money and choosing alternative ways of investing personal savings. The remainder of the text is almost exclusively concerned with problems faced by financial managers; but these first five chapters cover financial concepts that are useful to everyone.