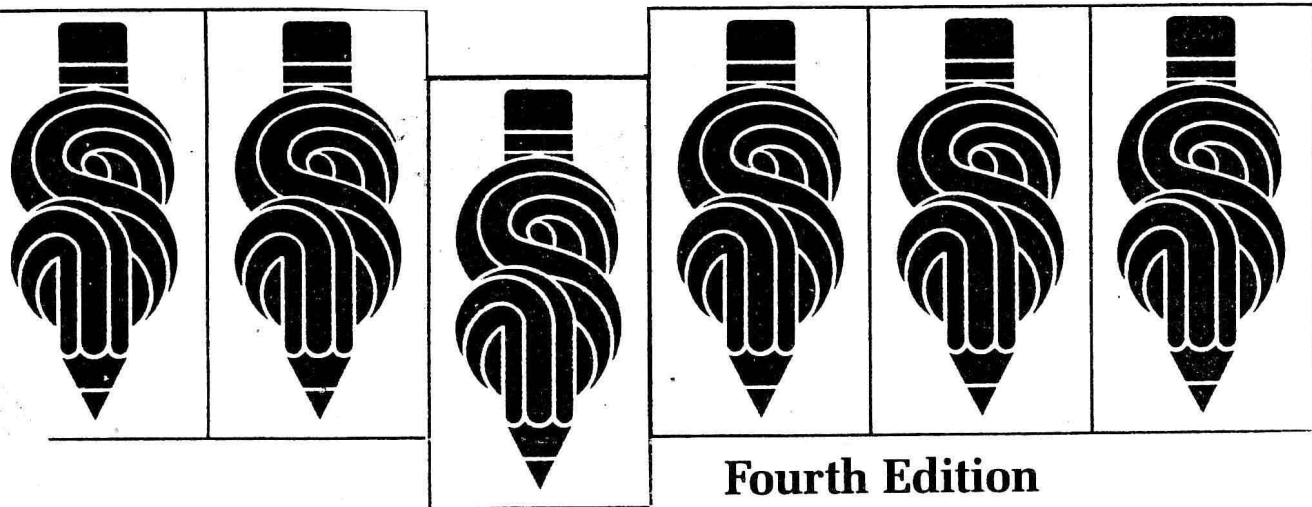


FINANCIAL ACCOUNTING

An Introduction

Fourth Edition

Walgenbach Hanson Dittrich



Fourth Edition

Financial Accounting

An Introduction

Paul H. Walgenbach
The University of Wisconsin

Ernest I. Hanson
The University of Wisconsin

Norman E. Dittrich
The University of Tennessee



Harcourt Brace Jovanovich, Publishers
San Diego New York Chicago Atlanta Washington, D.C.
London Sydney Toronto

Copyright © 1985, 1982, 1977, 1973 by Harcourt Brace Jovanovich, Inc.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher.

Requests for permission to make copies of any part of the work should be mailed to: Permissions, Harcourt Brace Jovanovich, Publishers, Orlando, Florida 32887.

ISBN: 0-15-527417-1

Library of Congress Catalog Card Number: 84-63117

Printed in the United States of America

PREFACE

Like earlier editions, the Fourth Edition of *Financial Accounting: An Introduction* is designed for the college student's first course in accounting. The text, together with related ancillary materials, provides a balance of conceptual and procedural material, a wide variety of problems and cases, and carefully organized teaching and study aids.

This edition has been extensively revised to make the sequence of topics more natural and teachable, to clarify discussions and illustrations, and to present new study aids for the student in the text itself.

New features in this edition include the following:

- New exhibits have been added to help students with difficult material. Examples include a matrix exhibit in Chapter 3 summarizing the various types of adjusting entries, a partnership liquidation exhibit in Appendix B (partnership accounting), and a worksheet exhibit for cash flow statements in Chapter 17.
- Corporate accounting now appears later in the book. A survey of users of the text shows that most instructors prefer to deal with this material later in the course.
- Boxed inserts (enrichment pieces) are new to this edition. These items give students additional background, extended coverage, or real-world examples of the accounting and business topics discussed in the chapter. They treat a range of subjects, such as the accountant's modern image, accounting estimates, stockholders' reports, microcomputers, deferred taxes, employee theft, and inflation accounting.
- Completely up-to-date discussions of FASB pronouncements are incorporated in the Fourth Edition, including the FASB conceptual framework. The text materials also integrates appropriate content from the 1984 Tax Reform Act.
- The basic idea of present values and effective interest has been integrated in the chapter on bond investments and long-term liabilities (Chapter 15). A more technical treatment has been consigned to the chapter appendix.
- Alternative problems have been added to enable students to study particular concepts more thoroughly and instructors to have greater flexibility in assigning material.

- Appendixes on Corporate Income Taxation and International Accounting have been added. The Corporate Income Tax appendix presents salient features of this area of taxation. The International Accounting appendix has been included in response to the requests of users who wish to introduce this subject in a fairly nontechnical fashion.
- Carefully selected questions have been added to the exhibit of a major public corporation's annual report (Whirlpool Corporation), which appears at the end of the text. These questions lead students to interesting aspects of the report that are related to major concepts discussed in the text.
- All the questions, exercises, and problems have been thoroughly reviewed and revised. Many problems are new to this edition, corresponding to added and updated topics and changes in topic sequence. Successful problems and exercises from previous editions have been revised and edited for clarity and realism.

A number of successful features have been carried forward from previous editions, including the following:

- Demonstration Problems for Review in selected chapters aid students in understanding significant processes or ideas.
- A Business Decision Problem in each chapter applies accounting concepts to typical business decision situations.
- Key Points to Remember at the end of each chapter give students an inventory of the main ideas in the chapter.
- A Glossary at the end of the text makes it easy for students to locate the definition of any particular term at any point in their study.
- A Checklist of Key Figures on the endpapers provides detail and summary figures to enable students to check their work without having the complete solution.
- The Fourth Edition retains the open, inviting design of the previous edition. Color is used constructively, and the layout of exhibits is designed to make the material accessible to students.

OTHER CHANGES FROM THE THIRD EDITION

Although the concept of depreciation is presented in Chapter 1, its use in transaction analysis is deferred to Chapter 3. This shift permits students to begin the study of basic financial statements without unnecessary complications. In Chapter 4 the worksheet has been expanded from 8 to 10 columns by adding the adjusted trial balance columns. The expanded worksheet emphasizes the role of adjustments. In Chapter 5, closing procedures and the placement of inventories in the worksheet have been simplified. Students may now construct closing entries more easily from the worksheet. The discussion of the voucher system has been combined with that of special journals in Chapter 6, thus covering all special journals in one chapter. A brief discussion of electronic data processing has been added, placing emphasis on the basic concepts of an electronic data processing system.

The discussion of short-term investments has been combined with cash accounting in Chapter 7. Short-term investments are current assets, and today there is a greater emphasis on cash-equivalent items, particularly in cash flow statements. Long-term investments are discussed later, in Chapters 15 and 16. In Chapter 9, exhibits of periodic inventory pricing methods have been revised to stress the residual nature of the determination of cost of goods sold.

Chapter 10 includes an expanded discussion of interest capitalization as well as revenue and capital expenditures. This chapter also combines discussions of capital leases and operating leases. The treatment of liabilities has been divided into two chapters—current liabilities in Chapter 11 and long-term liabilities in Chapter 15. Payroll accounting is discussed in Chapter 11 with current liabilities.

Additional material on the FASB conceptual framework appears in Chapter 12, dealing with accounting principles and inflation accounting. Discussion of interperiod tax allocation and deferred tax liabilities has been moved to Chapter 15, which deals with long-term liabilities. This placement is logical because most deferred tax liabilities are classified as long-term liabilities. Chapter 15 also discusses long-term bond investments. The chapter contains a nontechnical treatment of effective interest amortization of bond discount and premium. Present value theory and the determination of bond prices are treated in an appendix to this chapter.

In Chapter 16 long-term stock investments have been combined with consolidated financial statements. This combination permits the comparison of the accounting treatments of (1) noncontrolling and noninfluential stock interests, (2) influential but noncontrolling interests, and (3) controlling interests. The emphasis on pooling of interests has also been decreased in this chapter, leaving a detailed treatment of this topic for advanced accounting courses. Chapter 17 has been expanded to include a worksheet approach to the preparation of cash flow statements.

SUPPLEMENTS

TEST BOOK A class-tested Test Book is part of the instructional package. The 25 multiple-choice questions and 15 other objective questions for each chapter have been revised and updated and five or six short exercises have been added to each chapter. A computerized version of the Test Book is available, enabling instructors to select questions and print them automatically.

ACHIEVEMENT TESTS Two sets of Achievement Tests, each covering similar materials, are available. Each set includes ten achievement tests—nine two-chapter tests suitable for 50-minute class periods and a comprehensive test covering the 18 chapters. A Key to the Achievement Tests is also provided.

SOLUTIONS MANUAL The Solutions Manual describes all the problem material and requirements and lists the probable difficulty and estimated time for solution of each problem. Answers are given for all questions, exercises, and problems at the end of each text chapter and appendix.

STUDY GUIDE Prepared by Imogene A. Posey of the University of Tennessee, the Study Guide provides a comprehensive Chapter Review, a Check Your Knowledge section, and a set of exercises for each text chapter and appendix. Answers to the Study Guide questions and solutions to the exercises appear at the end of each chapter.

WORKING PAPERS Working Papers are provided for the problems and alternate problems at the end of the text chapters. All working papers are identified by problem number and name. When appropriate, given problem data have been entered to save time for the students.

TRANSPARENCIES Transparencies of solutions given in the Solutions Manual are available from the publisher on request to departments adopting the textbook. Teaching Transparencies of text material are also available from the publisher on request.

PRACTICE SETS Two practice sets, each covering similar materials, are available. Practice Set A, "The Word Shoppe," deals with a single proprietorship; Practice Set B, "The Word Shoppe, Inc.," concerns a corporation. Both practice sets were prepared by Joan Donen and C. R. Collins of Spokane Falls Community College.

INSTRUCTOR'S MANUAL New to this edition, the Instructor's Manual contains learning objectives and a lecture outline for each chapter and analyzes end-of-chapter problems in terms of the learning objectives covered. The Instructor's Manual was prepared by Richard W. Metcalf and Thomas E. Balke of the University of Nebraska, Lincoln. The solutions to the practice sets are also included in the Instructor's Manual.

COMPUTER RESOURCE GUIDE Prepared by John W. Wanlass, De Anza College, this unique guide is new to this edition. The guide adapts selected end-of-chapter problems to a real-world computer system and demonstrates how accounting information would be generated by a computer. The guide also includes a practice set that follows a company through the first six months of its business operations.

ACKNOWLEDGMENTS

We are indebted to many people for the success of the first three editions of *Financial Accounting: An Introduction* and for their contributions to the Fourth Edition. We are especially grateful to James Bower of the University of Wisconsin, Pauline Corn of Virginia Polytechnic Institute, Harriet Klapper of the College at New Paltz, State University of New York, Bruce Lindsey of Genesee Community College, and James Skidmore of Grand Rapids Junior College for their many valuable comments and suggestions, and to Professors Willis C. Stevenson and Roy A. Tuttle for their contributions to this revision. We also thank Ralph Kapalczynski of Whirlpool Corporation for his kind assistance in furnishing his firm's annual report and for answering related inquiries.

We also appreciate the comments of these reviewers of the new edition: Colin Battle, Broward Community College; Mary Emery, St. Olaf College; Charles Neyhart, Oregon State University; Jeff Schnepfer, American College; and T. C. Tillman and Sara Wilson, California State University, Long Beach; and of those who responded to the publisher's questionnaire: Sudro Brown, Rensselaer Polytechnic Institute; Cleophas M. Buck, Lawrence Institute of Technology; Gustave C. Coté, Providence College; James P. Dunigan, University of Wisconsin, Stevens Point; Gary P. Engle, University of Wisconsin, Milwaukee; William C. Hilke, San Diego Mesa College; J. Robert Jackson, University of Wisconsin, Stevens Point; Diane Kuhlmann, St. Olaf College; Heidemarie Lundblad, California State University, Northridge; John T. Martinelli, Sr., California State University, Long Beach; Robert W. Olmen, Greenville College; Mary S. Stone, University of Alabama; and William G. Zorr, University of Wisconsin, Oshkosh.

Finally, our thanks go to our editor, Kenneth Rethmeier, and the staff at Harcourt Brace Jovanovich, who ably assisted in planning and executing this revision.

**PAUL H. WALGENBACH
ERNEST I. HANSON
NORMAN E. DITTRICH**

CONTENTS

Preface

1

ACCOUNTING: AN INFORMATION SYSTEM

1

Accounting as an Information System	2
The Accounting Process	3
The Reporting Process	5
Accounting Principles	7
Fields of Accounting Activity	7
Basic Financial Reports	9
The Balance Sheet	10
Forms of Business Organization	12
Underlying Accounting Concepts	14
Effect of Transactions on the Balance Sheet	15
Transactions and the Balance Sheet: An Illustration	17
The Income Statement	23
Relationship of Balance Sheet and Income Statement	25
Statement of Owners' Equity	25
Demonstration Problem for Review	26
Key Points to Remember	27

2

THE DOUBLE-ENTRY ACCOUNTING SYSTEM

39

Categories of Data Needed	40
The Account	42
The System of Debits and Credits	44
The Running Balance Account	47
Illustration of Debit and Credit Analysis	48
The General Ledger and the Trial Balance	56
Errors in Transaction Analysis	57
Key Points to Remember	58

3**THE ACCOUNTING CYCLE****73**

Steps in the Accounting Cycle	74
Source Documents	75
Journals	77
Posting	79
Adjustments	89
Key Points to Remember	101

4**THE ACCOUNTING CYCLE CONCLUDED****117**

Preparing Financial Statements	118
Closing Procedures	127
Key Points to Remember	142

5**MERCHANDISING OPERATIONS****159**

The Nature of Merchandising Operations	160
Income Statement for a Merchandising Firm	161
Steps in a Merchandise Transaction	163
Terms of Transactions	164
Recording Merchandise Sales	166
Recording Merchandise Purchases	167
Returns and Allowances	168
Recording Receipts and Payments	170
Net Price Method of Recording Purchases	172
Transportation Accounts	173
Worksheet for a Merchandising Firm	174
Financial Statements of a Merchandising Firm	175
Adjusting and Closing Entries	182
Demonstration Problem for Review	184
Key Points to Remember	191

6**DATA PROCESSING:
MANUAL AND ELECTRONIC SYSTEMS****205**

Control Accounts and Subsidiary Ledgers	206
Special Journals	209
Sales Journal	210
Cash Receipts Journal	211
Invoice Register (Purchases Journal)	214
Cash Disbursements Journal	214
Use of the General Journal	217
The Voucher System	218
Electronic Data Processing (EDP)	223
Key Points to Remember	226

7**INTERNAL CONTROL, CASH,
AND SHORT-TERM INVESTMENTS****243**

The Nature of Internal Control	244
Features of an Accounting Control System	245
Cash and Cash Controls	248
The Petty Cash Fund	257
Internal Control in Other Areas	259
Short-Term Investments	260
Demonstration Problem for Review	265
Key Points to Remember	267

8**TRADE ACCOUNTS AND NOTES****281**

Trade Receivables and Payables	282
Installment Accounts	283
Losses from Uncollectible Accounts	283
Credit Card Fees	289
Notes Receivable and Payable	290
Key Points to Remember	299

9**INVENTORIES****311**

Review of Basic Concepts	312
The Need for Inventories	313
Income Determination and Inventory Measurement	313
Inventory Measurement	314
Inventory Pricing Methods	315
Comparative Analysis of Inventory Pricing Methods	319
Departures from Cost	323
Estimating Inventories	324
The Effect of Inventory Errors	326
Perpetual Inventory Procedures	327
Demonstration Problem for Review	330
Key Points to Remember	333

10**PLANT ASSETS: MEASUREMENT AND DEPRECIATION** 345

Overview of Plant Asset Problems	347
Original Measurement of Plant Assets	348
The Nature of Depreciation	351
Computations of Periodic Depreciation	357
Revision of Depreciation	357
Depreciation for Tax Purposes	358
Revenue Expenditures	358

Capital Expenditures	359
Disposals of Plant Assets	361
Natural Resources	364
Intangible Assets	366
Balance Sheet Presentation	370
Key Points to Remember	370

11

CURRENT LIABILITIES AND PAYROLL ACCOUNTING 385

The Nature of Liabilities	386
Examples of Current Liabilities	387
Contingent Liabilities	393
Payroll Accounting	394
Impact of Legislation of Payroll Procedures	394
Other Payroll Deductions	400
Net Pay Computation for Individual Employee	401
Payroll Records	401
Payment to Employees	406
Key Points to Remember	406
Appendix A	
Corporate Income Taxes	416

12

ACCOUNTING PRINCIPLES; ACCOUNTING FOR INFLATION 423

Historical Development	424
Conceptual Framework	425
Basic Principles	426
Accounting for Inflation	435
Demonstration Problem for Review	445
Key Points to Remember	447

13

CORPORATIONS: ORGANIZATION AND CAPITAL STOCK 459

Nature and Formation of a Corporation	460
Characteristics of Corporations	461
Owners' Equity and Organizational Forms	463
Types of Stock	463
Par and No-par Value Stock	468
Stock Issuances for Cash	470
Stock Subscriptions	471
Stock Issuances for Assets Other Than Cash	472

Treasury Stock	472
Donated Capital	474
Redemption of Preferred Stock	475
Book Value per Share	476
Market Value and Liquidation Value	477
Key Points to Remember	477

14

CORPORATIONS: EARNINGS DISCLOSURE, DIVIDENDS, AND RETAINED EARNINGS

491

Income Statement Sections	492
Extraordinary Items	493
Unusual or Nonrecurring Items	494
Tax Allocation Within a Period	495
Discontinued Operations	496
Changes in Accounting Principles	496
Single-Step and Multiple-Step Income Statements	498
Prior Period Adjustments	498
Changes in Accounting Estimates	499
Summary of Reporting Format	500
Earnings per Share	500
Dividends	504
Stock Splits	508
Appropriations of Retained Earnings	508
Retained Earnings Statement	511
Demonstration Problem for Review	511
Key Points to Remember	512
Appendix B	
Partnership Accounting	525
Nature of a Partnership	525
Division of Partnership Profits and Losses	525
Admission of a Partner	529
Retirement of a Partner	532
Liquidation of a Partnership	533

15

LONG-TERM LIABILITIES AND BOND INVESTMENTS 541

Mortgage Notes and Bonds Payable	542
Bond Sinking Funds	555
Long-term Bond Investments	556
Deferred Income Taxes	557
Corporation Balance Sheet	561
Key Points to Remember	561
Appendix C	
Present Values and Effective Interest Amortization	572
Present Values	572
Effective Interest Amortization	575

16

LONG-TERM STOCK INVESTMENTS AND CONSOLIDATED FINANCIAL STATEMENTS

581

Types of Ownership Interest	582
Parent–Subsidiary Relationship	586
Acquisition of Subsidiaries	587
Consolidated Balance Sheets at Acquisition Date	587
Consolidated Balance Sheets After Acquisition Date	590
Majority-Held Subsidiaries	593
Differences Between Acquisition Cost and Book Value	595
Consolidated Income Statement	597
Consolidated Retained Earnings Statement	599
Other Intercompany Accounts	600
Consolidated Statements—Pooling Method	601
Usefulness of Consolidated Statements	603
Demonstration Problem for Review	603
Key Points to Remember	605

Appendix D

International Accounting 619

World Trade and Multinational Corporations	619
Foreign Currency Exchange Rates	620
Translation of Foreign Currency Transactions	621
Conversion of Foreign Currency Financial Statements	623

17

STATEMENT OF CHANGES IN FINANCIAL POSITION: ANALYSIS OF FUNDS AND CASH FLOWS

633

Definition of Funds	634
Usefulness of Statement of Changes in Financial Position	635
The Effect of Transactions on Working Capital	635
Form of Statement of Changes in Financial Position	640
Worksheet Illustration of Funds Flow Analysis	641
Significant Changes Not Affecting Funds	645
Comprehensive Illustrations	647
Cash Flow Statements	651
Key Points to Remember	660

18

ANALYSIS AND INTERPRETATION OF FINANCIAL STATEMENTS

677

Sources of Information	678
Analytical Techniques	679
Analysis of Operating Performance	687
Using the Net Income Figure	690
Trading on the Equity	693
Analysis of Financial Strength	694
Limitations of Financial Analysis	699
Key Points to Remember	700

**EXAMPLE OF FINANCIAL DATA OF
A MAJOR CORPORATION**

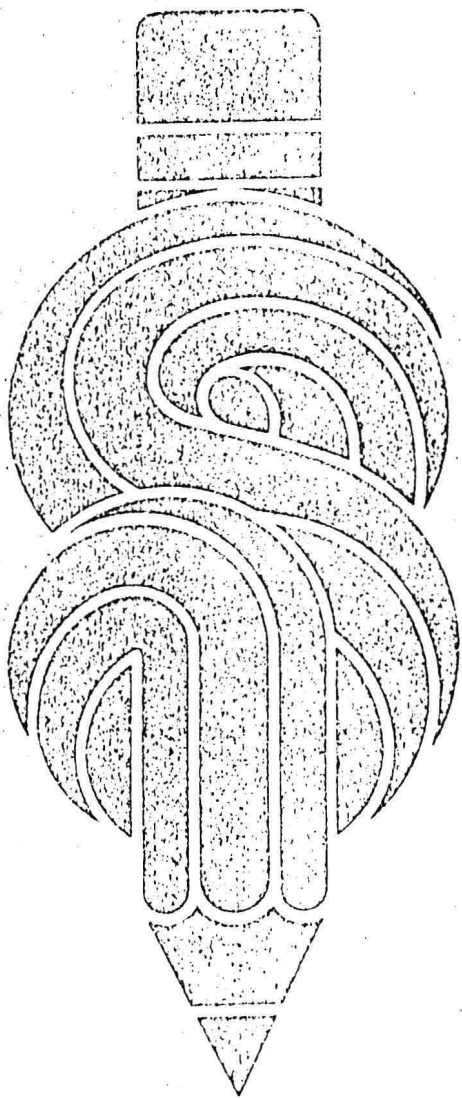
715

GLOSSARY

731

INDEX

743



1

Accounting: An Information System

When you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind.

LORD KELVIN

Modern accounting is widely recognized as a basic component of business management. Accounting is the means by which managers are informed of the financial status and progress of their companies, thus contributing to the continuing processes of planning, control of operations, and decision making. Accounting provides a method of systematically recording and evaluating business activities. This is, perhaps, the fundamental reason for business managers and business students to familiarize themselves with the accounting discipline.

A large portion of the information that a business manager requires is derived from accounting data. The ability to analyze and use these data helps managers accomplish their objectives. Through your study of accounting, you will discover the types of business activities that can be accounted for usefully, the methods used to collect accounting data, and the implications of the resulting information. Furthermore—and often just as important—you will become aware of the limitations of accounting reports.

ACCOUNTING AS AN INFORMATION SYSTEM

Virtually all profit-seeking organizations and most nonprofit organizations maintain extensive accounting records. One reason is that these records are often required by law. A more basic reason is that, even in a very small organization, a manager is confronted with a multitude of complex variables. Not even the most brilliant manager can be sufficiently informed just by observing daily operations. Instead, he or she must depend on the accounting process to convert business transactions into useful statistical data that can be abstracted and summarized in accounting reports. In every sense, this process is essential to the coordinated and rational management of most organizations—regardless of their size. Thus, accounting is an information system necessitated by the great complexity of modern business.

In today's society, many persons and agencies outside of management are involved in the economic life of an organization. These persons frequently require financial data. For example, stockholders must have financial information in order to measure management's performance and to evaluate their own holdings. Poten-