

THE ANALYSIS AND USE *of* Financial STATEMENTS

第三版

财务报表分析与运用

杰拉尔德·I·怀特(Gerald I.White)

阿什温保罗·C·桑迪海(Ashwinpaul C.Sondhi)

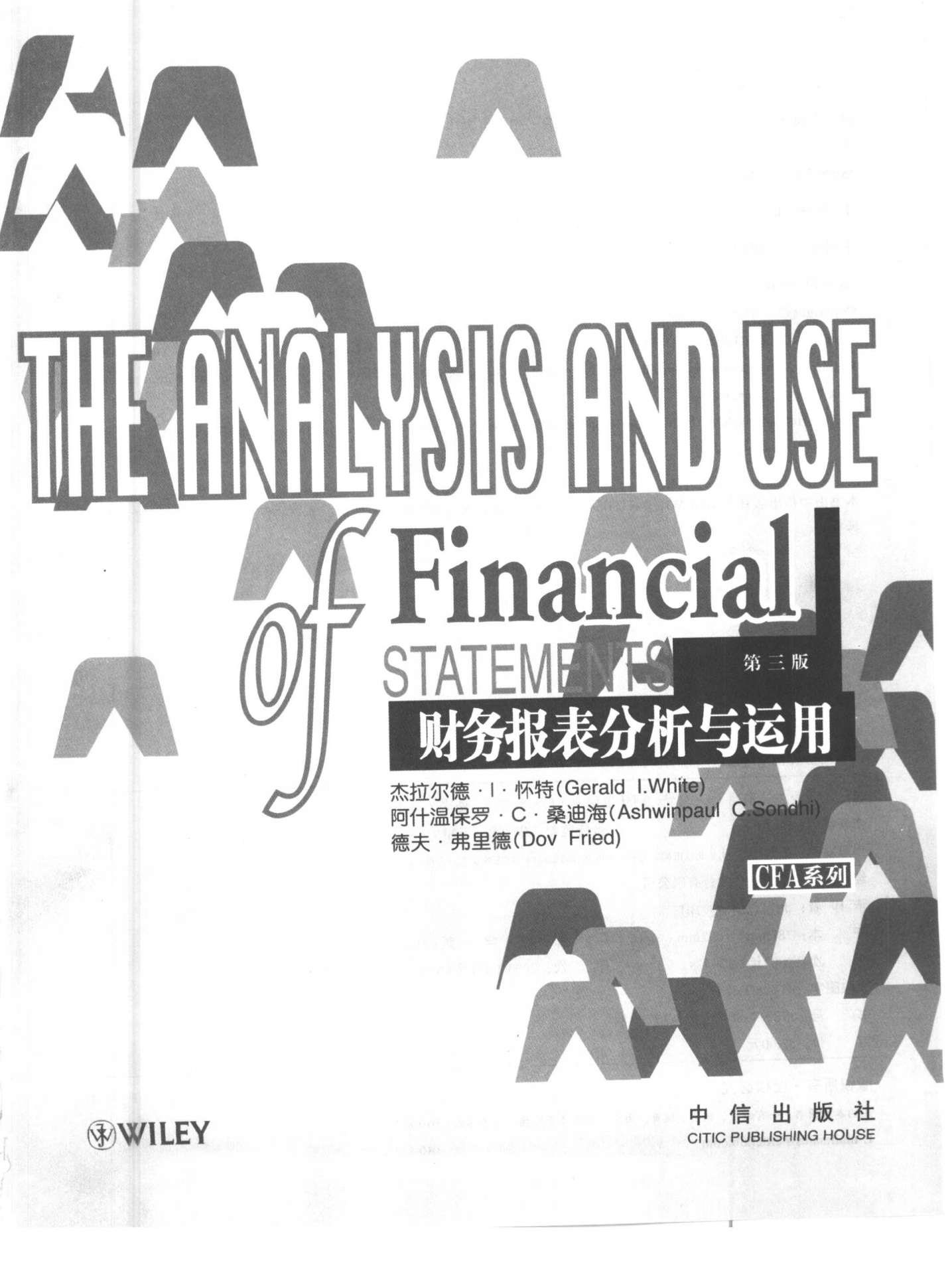
德夫·弗里德(Dov Fried)

CFA系列

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财务报表分析与运用

CAIWU BAOBIAO FENXI YU YUNYONG

著 者: 杰拉尔德·I·怀特 阿什温保罗·C·桑迪海 德夫·弗里德

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金融分析师的知识、经验与机遇

在过去的十年里，中国资本市场经历了从起步到快速成长的阶段，今天它已发展成为国民经济中引人瞩目的重要行业。在新世纪来临之际，世界经济向全球化、信息化和金融化方向发展，中国已加入WTO，使我国的资本市场以及各个经济领域面临着又一次重大的挑战与机遇。中国的资本市场，无论在规模或规范化方面与世界上发达的金融市场还有很大的差距，随着资本市场的扩容，它的复杂性增加，需要研究的问题也越来越多。例如，培育机构投资人，提高资本市场有效性；开放式基金管理；创业板市场设立与运作，国有股、法人股流通；保险基金与养老基金管理；商业银行股份化及资产证券化运作；股票指数期货等金融衍生工具的引入及其在风险管理中的应用等。这一切都需要大批掌握国际惯例的人才，中国资本市场的规则最终要与世界接轨，越来越多的金融市场从业人员也需要加强培训和提高素质。中国的资本市场又有着它自身的规律和发展道路，必须结合国际的经验和中国的实情加以研究。

展望未来资本市场发展面临的机遇和挑战，我们首先应该大力加强国内外资本市场理论与实际的研究，大力培养既掌握国际先进金融知识又谙熟中国商品经济特殊规律的金融人才，提高行业的整体水平。“特许金融分析师”是我们应采纳的一个严格的国际行业规范，它是全球通行的、最权威的金融市场专业人员的资格认证，开始于1960年代初，近年来这一资格已越来越广泛地成为全球投资银行家、证券交易人员、公司财务总监等金融业内人士公认的最高行业从业标准。CFA®的课程设置和考试内容深深根植于投资管理的实践，涉及丰富的金融投资有关学科的基础知识，并且随着金融市场的发展而不断发展，以反映最新的投资领域的变化。我们应尽最大的努力在我国普及CFA®知识并研讨建立我国自己的资格认证体系，为我国资本市场的进一步发展、规范与国际化做出贡献！

提到高素质的金融人才，许多人认为只有基金管理公司最需要这类的人才，实际上其他的金融机构也大量需要投资管理方面高素质的专业人才。证券公司、保险公司、银行、资产管理公司、上市公司等其他金融机构都亟需投资管理的精英人才。我国的证券市场，无论是一级市场还是二级市场都存在着制度上的缺陷。政策惯性虽然存在，股票发行的核准制毕竟已经实施，债券发行也必将由审批制转为核准制。发行已经市场化，如果拟发行股票或债券的企业质量不高，定价又不合理，承销商将面临发行不成功且不得不自己大量购进余额的尴尬境地。所以，在现实利益驱动下，承销商将逐渐重新定位自身的角色，将比任何时候都更需要致力于金融分析。在二级市场上，缺乏做空机制和避险工具，这使得一些券商和机构具有和某些市场力量结合，努力将市场推高的内在冲动。股指期货等避险工具正在设计之中，市场各方需要未雨绸缪，及早为今后的市场环境做好准备，其中也需要有关的人才准备。

在保险业，不久前我国保险资金的运用渠道还只限于银行存款、政府债券、金融债券等，这对于保证保险资金的流动性和安全性固然十分重要，但是过于狭窄的保险资金运用范围，一方面限制了保险资金的盈利能力，使大量的长期资金不仅缺少投资途径，而且利率倒挂，另一方面也造成相当大的潜在市场风险。因为银行存款、政府债券、金融债券之类高信用级别的债务都属于利率产品，一旦利率波动，保险企业风险很大。在国外保险资金一直是股市及证券市场的“主力军”，是资本市场最重要的参与者之一，西方保险企业主要靠投资组合实现保险资金的保值增值，弥补承保亏损，取得经营利润。由于投资作用的增强，使保险企业在偿付功能的基础上又增强了投融资功能，投资业务已成为与保险业务并重的两大主导业务之一。从发达国家的经验看，保险资金可以通过多种途径实现与资本市场的对接，如发行定向保险投资基金、进行资产委托管理、组建产业投资基金、深化债券投资组合等。保险资金的投资需求与证券市场的融资需求形成一种互动互补的关系，保险资金已经成为影响资本市场的一支举足轻重的力量。保险资金的大规模入市和保险基金的设立势在必行，兼具保障与投资功能的投资型保险也必将成为未来中国寿险市场的主导产品，这意味着保险竞争将从传统的价格竞争转变到保险公司投资管理水平的竞争，保险业的发展进入新时代，所以投资决策与管理人才对于保险公司来说，事关成败兴衰。

我国加入WTO后，商业银行目前可谓处于极大的被挑战境地，为了生存银行将不得不全力开拓新的利润增长点。现在商业银行除了在证券代理业务和基金托管业务方面介入证券市场外，更需要下大力气在财务顾问和个人理财两大领域开拓新的利润来源。银行可为企业资产重组、兼并收购提供咨询、资金融通，并开展或与证券公司合作开展企业境内改制上市业务。个人理财的需求也在不断增长，目前市场上个人理财产品不断涌现，但这些新的产品在研究和探讨个人的投资理财心理、动机、行为等方面，与客户个人资产达到保值增值方面的需求尚有较大差距。因此，随着同业竞争的加剧和客户需求的提高，商业银行要在竞争中保持优势，需要网罗大量的金融分析和金融工程人才。

除此之外，要处理大量不良资产、开展资产证券化的资产管理公司，信用评级、金融中介等其他金融机构都从整个市场的角度提出了对高素质金融专业人士的要求。近来国内、国际金融机构和上市公司造假事件频频发生，信用危机弥漫在世界主要的金融市场中，严肃的监管者在忙于修订规则，重建金融市场的信用，恢复投资人的信心，在这个时候，市场召唤一大批高资质的、具备最新投资分析知识、具有高度的职业伦理道德，并富有实践经验的金融分析师。

CFA®系列丛书代表着国际最新的投资领域知识，也是报考CFA®的指定参考书。相信这套丛书的出版能为我国金融体制和资本市场的发展起到重要的推动作用

北京大学光华管理学院
金融分析师中心主任
孟庆轩

PREFACE

The objective of this book is the presentation of financial statement analysis from the point of view of the primary users of financial statements: equity and credit analysts. The analysis and use of financial statements is not restricted to analysts, however. Managers, auditors, educators, and regulators can also benefit from the insights and analytic techniques presented in this text.

Corporate managers, and those training to be managers, require an understanding of how financial statements provide information regarding an enterprise. This book is intended for use as a university level textbook for MBA and advanced undergraduate financial statement analysis courses. In addition, it should help equip businesspeople to prepare, audit, or interpret financial information. Finally, the text is designed to be a useful reference for both neophytes and informed readers.

WHO SHOULD READ THIS BOOK?

We believe that our work will be valuable to numerous audiences. First, it will benefit the working financial analyst. Some of the areas covered (off balance sheet financing and hedging techniques, for example) are rarely covered either in the professional literature or in accounting textbooks. While many analysts are familiar with some of the techniques in this book, we believe that even the most experienced analyst will find fresh insights on financial reporting issues.

Financial analysis, in some cases, is nothing more than journalism. Analysts accept the financial statements and what management tells them at face value. Good analysis is hampered by the inadequacies of published financial data. Many analysts examine the trend of reporting earnings but are unable to go “behind the numbers” or beyond them. The analysis taught in most textbooks starts and ends with reported financial statements or computerized databases.

Our view is that good financial analysis requires the analyst to understand how financial statements are generated in order to *separate the economic process that generates the numbers from the accounting process that (sometimes) obscures it*. Such analysis requires the use of assumptions and approximations, as reported financial data are often inadequate. We may dislike the need to make assumptions, but most financial analysis depends on them. Good analysis also requires the recasting of reported data into other formats when the latter yield superior insights.

However, we do not believe that there are always simple solutions to analytic problems. There is, for example, no precisely correct or “optimal” leverage ratio; there are many possible ratios, depending on the goals of the analysis and the judgement of the analyst. Our view is that asking the right questions is more than half the battle. This text asks many questions, and suggests some answers.

Previous financial analysis books have been written from an academic point of view, stressing either an accounting or an empirical (data analysis) approach. While both financial accounting and empirical analysis are present in this text, they are integrated with, and

subordinated to, user oriented analysis. They are subjected to the test of relevance: how do they aid in the interpretation of financial statement data?

Most of the analysis presented is based on the financial statements of actual companies. While such analysis can be frustrating (due to inadequate data), we believe that financial analysis can be presented best in a real world setting. While “models” are sometimes required for exposition purposes (such as for the analysis of foreign operations), the principles learned are always applied to real company statements.

The end-of-chapter materials (all problems and solutions were written by the authors) are also largely based on real corporate data. Some problems are adapted from the Chartered Financial Analyst examination program. Readers and students need to apply the text material to actual financial statements and the problems are designed to test their ability to do so.

The past few years have seen a resurgence of interest in accounting and financial statement analysis. The bursting of the market bubble produced evidence that some preparers had used accounting methods that pushed the limits of acceptable financial reporting, and that many financial analysts used reported financial data to make valuation judgments despite evidence of those excesses.

We believe that the readers of the earlier editions of this text were better prepared to recognize the risks inherent in financial reporting and to make the analytical adjustments required to avoid many of the pitfalls resulting from overly aggressive accounting methods.¹ We have done our best to incorporate the lessons of the past few years in the third edition. However, both accounting and financial analysis continue to evolve and new issues will emerge. Our goal, therefore, is to encourage the analyst to think critically about reported data rather than blindly accepting them for valuation purposes.

ORGANIZATION AND CONTENT

A few comments on the organization and content of the book may be helpful to both reader and instructor. As already stated, we have integrated accounting, economic theory, and empirical research into a financial analysis framework. In doing so, we realize that some topics may be more important to some readers than to others. For that reason some advanced material (e.g., the Analysis of Oil and Gas Disclosures in Chapter 7) appears in appendices. Within chapters, we have organized some material into boxes that are available to interested readers without distracting those who are not.

As the globalization of financial markets continues apace, we include discussions and comparisons of relevant foreign and international (IASB) accounting standards throughout the text. Some of this material is in separate “international” sections but much of it is integrated. As the comparative analysis of companies using different accounting standards is an increasingly common concern, our goal is to help the user who must make an investment decision despite the lack of comparability. In some chapters, non-U.S. companies are used to illustrate international accounting differences. Non-U.S. companies are also used extensively in the cases and problem sections.

The first five chapters introduce the essential elements of financial statement analysis. Chapter 1 provides the framework, including discussions of data sources and the roles of preparers, auditors, and standard setters in the financial reporting process.

Chapter 2 describes the accrual method of accounting and its implications for financial reporting, leading to a discussion of the income statement and balance sheet. Chapter 3 describes the cash flow statement and cash flow analysis. Chapter 4 presents ratio analysis, suggesting both its advantages and its limits. Chapter 5 reviews empirical research, emphasizing its implications for financial analysis.

Chapters 6 to 15 focus on specific areas of analysis, ranging from inventories to multinational corporations. Throughout these chapters our goal is to show how differences in accounting methods and estimates affect reported financial condition, results of operations

¹ For example, Case 16-1 in the second edition used the 1995 financial statements of Enron to raise questions about their risk-management activities.

(including cash flows), and ratios. In many cases, analytic techniques are used to restore comparability, enhancing the decision usefulness of financial data. Each chapter includes a discussion of international accounting differences and relevant empirical research findings.

Chapter 6 considers the analysis of inventories, where differing methods have far-reaching effects on financial data. Chapter 7 (Long-Lived Assets) addresses the capitalization versus expensing decision, which has pervasive effects on reported financial statements. Chapter 8 considers differing methods of allocating capitalized costs to operations and the thorny topics of impairment and restructuring. Chapter 9 concerns income tax accounting, and focuses on the information content of income tax disclosures.

Chapter 10, the first of a series on long-term liabilities, provides an analysis of varying forms of debt. Chapter 11 turns to off-balance-sheet financing techniques, with particular emphasis on leases. Chapter 12 considers pension and other employee benefits (including stock options).

The next three chapters focus on problems resulting from the combination of more than one enterprise. Chapter 13 considers the cost, mark-to-market, equity method, and consolidation issues resulting from intercorporate investments, including joint ventures. Chapter 14 presents the alternative methods of accounting for business combinations, as well as the analysis of leveraged buyout firms (LBOs) and spinoffs. Chapter 15 describes the impact of changing exchange rates on multinational firms and suggests how available data can be used to separate exchange rate and accounting effects from operating results.

Chapter 16 examines risk management activities (including hedging), an area of inconsistent accounting standards and incomplete disclosures.

Chapters 17 through 19 pull together all previous text material. Chapter 17 shows how to use financial statement disclosures to prepare current cost balance sheets and to normalize reported income and cash flows. Such recast data, we believe, provide superior inputs for investment decisions. Chapter 18 demonstrates how financial data can be used to assess different forms of risk. Chapter 19 presents a variety of valuation models, and relates their use to the material covered earlier in the text. It also considers forecasting models for which financial data constitute the input. Chapter 19 concludes with a section on financial statement forecasts.

Changes in Third Edition



This edition has been substantially rewritten. There is also a major organizational change. The book is accompanied by a CD containing all appendices, cases, and the financial statements of eight companies used to illustrate the analysis. This material is also located at a Web site to which all who purchase the text will have access. The icon adjacent to this paragraph will be placed in the text when reference to the CD/Web site is required.

There were two reasons for this organizational change. First, we wanted to be able to use a larger number of companies in this edition. The eight firms chosen include four that are located outside the United States. Three of these companies use non-U.S. accounting principles (one IAS, one Swedish, one Japanese). Three of the eight firms are drug companies, and three are forest product companies.² The choices allow the text to compare firms within a single industry using different accounting methods and to illustrate a variety of accounting differences and analytical techniques.

The second reason follows from the first. The second edition exceeded 1200 pages (including the financial statements of three companies) and the expansion of our financial statement group to eight would have made the third edition impossibly large. Moving the ancillary material to a CD and Web site enabled us to greatly reduce the text size while expanding the number of financial statements.

The Web site will also be a means of communicating with our readers. We will post updates for new FASB and IASB standards on the Web site as well as errata.

² We had intended to include two technology companies within our corporate set, but those firms refused permission to reprint their financial statements. However, the text has many illustrations of technology company financial reporting and analysis.

The third edition also includes the following changes:

1. We have increased our focus on U.S. GAAP and IASB GAAP given the increasing use of International Standards and the expectation that they will gradually replace virtually all non-U.S. standards. In every chapter we explain both sets of standards and the most significant differences between them, providing illustrations when appropriate.
2. We have updated the text to reflect all FASB and IASB standards issued through June 2002, discussing proposed standards as well. New standards resulted in major revisions to Chapters 12 (pensions), 14 (mergers and acquisitions), and 16 (derivatives). Discussions of empirical research have also been updated for recent publications.
3. Chapter 2 contains additional material on revenue and expense recognition, using illustrations from technology and nontechnology firms.
4. Chapter 19 has a new section on financial statement forecasting.
5. We distinguish real companies used in examples and problems by placing the ticker symbol (primary market as reported on the Bloomberg[®] system) in brackets (e.g., [IBM]) following the name. This convention is not followed for the companies whose financial statements are on the CD/Website.

ACKNOWLEDGMENTS

We acknowledge the help of our many teachers, mentors, colleagues, and friends throughout our respective careers. In particular we thank the late Oliver R. Grace, as well as Professors Michael Schiff, George Sorter, Joshua Livnat, and Sanford C. Gunn, and Raj Malhotra.

The first and second editions were reviewed by a number of colleagues, friends, students, and outside reviewers. We appreciate their valuable insights, constructive criticisms, and encouragement. The contribution of Eric Press (Temple University), the main reviewer for the second edition, deserves special recognition.

We accept full responsibility for any errors. We welcome comments and corrections, which can be directed to us through the Wiley Web site.

GERALD I. WHITE
ASHWINPAUL C. SONDI
DOV FRIED

August 2002

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SUMMARY

CHAPTER OBJECTIVES

The goals of this chapter are to:

1. Explain why financial statement analysis is needed.
2. Discuss the general principles of the financial reporting system.
3. Compare the roles of the Financial Accounting Standards Board and the Securities and Exchange Commission in setting U.S. GAAP.
4. Review the elements of the FASB's conceptual framework.
5. Discuss the progress in setting global accounting standards and the role of the International Accounting Standards Board.
6. Briefly describe the principal financial statements: Balance Sheet, Income Statement, Statement of

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Comprehensive Income, Statement of Cash Flows, and Statement of Stockholders' Equity.</p> <p>7. Discuss the usefulness of financial statement footnotes and supplementary data.</p> | <p>8. Describe the usefulness of the Management Discussion and Analysis and other sources of financial information.</p> <p>9. Discuss the role of the independent auditor and information conveyed by the audit opinion.</p> |
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INTRODUCTION

Why are financial statements useful? Because they help investors and creditors make better economic decisions. The goal of this book is to enhance financial statement users' understanding of financial reporting in order to facilitate improved decision making. We will examine the impact of the differential application of accounting methods and estimates on financial statements, with particular emphasis on the effect of accounting choices on reported earnings, stockholders' equity, cash flow, and various measures of corporate performance (including, but not limited to, financial ratios). We will also stress the use of cash flow analysis to evaluate the financial health of an enterprise.

Financial statements are, at best, only an approximation of economic reality because of the selective reporting of economic events by the accounting system, compounded by alternative accounting methods and estimates. The tendency to delay accounting recognition of some transactions and valuation changes means that financial statements tend to lag behind reality as well.

This chapter provides a framework for the study of financial statement analysis. This framework consists of the users being served, the information system available to them, and the institutional structure within which they interact.

NEED FOR FINANCIAL STATEMENT ANALYSIS

The United States has the most complex financial reporting system in the world. Detailed accounting principles are augmented by extensive disclosure requirements. The financial statements of large multinationals add up to dozens of pages, and many of these firms voluntarily publish additional "fact books" for dissemination to financial analysts and other interested users.

Financial reporting in other major developed countries and many emerging markets has also evolved substantially in recent years, with an increasing emphasis on providing information useful to both domestic and foreign creditors and equity investors. International Accounting Standards have become a credible rival to U.S. standards.

In an ideal world, the user of financial statements could focus only on the bottom lines of financial reporting: net income and stockholders' equity. If financial statements were comparable among companies (regardless of country), consistent over time, and always fully reflecting the economic position of the firm, financial statement analysis would be simple, and this text a very short one.

The financial reporting system is not perfect. Economic events and accounting entries do not correspond precisely; they diverge across the dimensions of timing, recognition, and measurement. Financial analysis and investment decisions are further complicated by variations in accounting treatment among countries in each of these dimensions.

Economic events and accounting recognition of those events frequently take place at different times. One example of this phenomenon is the recognition of capital gains and losses only upon sale in most cases. Appreciation of a real estate investment, which took place over a period of many years, for example, receives income statement recognition only in the period management chooses for its disposal.¹

¹However, in countries (such as the United Kingdom) where periodic asset revaluation is permitted, balance sheet recognition of market value changes may occur much sooner.