

# Chapter 2

## Financial Reporting and Analysis

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### REVIEW

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Financial statements are the most visible products of a company's financial reporting process. The financial reporting process is governed by accounting rules and standards, managerial incentives, and enforcement and monitoring mechanisms. It is important for a user of financial information to understand the financial reporting environment along with the accounting information presented in financial statements. In this chapter, the concepts underlying financial reporting are discussed with special emphasis on accounting rules. Next the purpose of financial reporting is discussed – its objectives and how these objectives determine both the quality of the accounting information and the principles that underlie the accounting rules. The relevance of accounting information for business analysis and valuation is also discussed and limitations of accounting information are identified. Last, accrual accounting is discussed including the strengths and limitation of accruals, and the implications of accruals for financial statement analysis.

# OUTLINE

- **Financial Reporting Environment**
  - Statutory Financial Reports**
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    - Earnings Announcements**
    - Other Statutory Reports**
  - Factors Affecting Statutory Financial Reports**
    - Generally Accepted Accounting Principles**
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      - Setting Accounting Standards**
      - Role of the Securities and Exchange Commission**
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    - Conservatism**
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    - Limitations of Financial Statement Information**
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      - Empirical Relevance of Accrual Accounting**
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  - Analysis Implications of Accrual Accounting**
    - Myths and Truths About Accruals and Cash Flows**
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**Accruals and Cash Flows – Truths  
Should We Forsake Accruals for Cash Flows?**

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**Process of Accounting Analysis**  
     **Evaluating Earnings Quality**  
         **Steps in Evaluating Earnings Quality**  
     **Adjusting Financial Statements**

**Appendix 2A: Auditing and Financial Statement Analysis**

- **Relevance of Auditing to Analysis**  
     **Credibility and Competence of the Audit Firm**  
     **Relevance and Limitations of the Audit Report**

- **Audit Process**
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  - Auditing Procedures**
- **Audit Report**
  - Types of Audit Qualifications**
  - “Except for” Qualification**
  - Adverse Opinion**
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- **Analysis Implications from Auditing**
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  - Analysis Implications of Auditing Standards**
  - Analysis Implications of Auditor Opinions**
  - Analysis Implications of Explanatory Language for Uncertainties**
  - Analysis Implications of the SEC**

**Appendix 2B: Earnings Quality**

- **Determinants of Earnings Quality**
  - Accounting Principles**
- **Income Statement Analysis of Earnings Quality**
  - Analysis of Maintenance and Repairs**
  - Analysis of Advertising**
  - Analysis of Research and Development**
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- **Balance Sheet Analysis of Earnings Quality**
  - Conservatism in Reported Assets**
  - Conservatism in Reported Provisions and Liabilities**
  - Risks in Reported Assets**
- **External Factors and Earnings Quality**

## ANALYSIS OBJECTIVES

- Explain the financial reporting and analysis environment
- Identify what constitutes generally accepted accounting principles (GAAP)
- Describe the objectives of financial accounting, and identify primary and secondary qualities of accounting information
- Define principles and conventions that determine accounting rules
- Describe the relevance of accounting information to business analysis and valuation
- Identify limitations of accounting data and their importance for financial statement analysis
- Understand alternative income concepts and distinguish them from cash flows
- Understand fair value accounting, its advantages, limitations and analysis implications
- Explain the importance of accrual accounting and its advantages and limitations
- Describe the need for and techniques of accounting analysis
- Explain the relevance of auditing and the audit report (opinion) for financial statement analysis (Appendix 2A)
- Analyze and measure earnings quality and its determinants (Appendix 2B)

## QUESTIONS

The users of financial reporting information include investors, creditors, analysts, and other interested parties. There are several sources of information available to users. These include statutory financial reports and alternative information sources such as economic information and industry information. Statutory financial reports are prepared according to the set of generally accepted accounting principles (GAAP). A regulatory hierarchy that includes the Securities and Exchange Commission, the American Institute of Certified Public Accountants, and the Financial Accounting Standards Board promulgates these principles. GAAP is also influenced in some industries by specialized industry practices. Managers prepare the statutory financial reports. Thus, the reports are subject to manipulation based on incentives of managers to present the company in its best light. However, the ability of managers

- 2-1. to manipulate the financial reports is limited by several monitoring and enforcement mechanisms including the SEC, internal and external auditors, corporate governance, and the possibility of litigation against the company and/or the managers.**
- 2-2. Earnings announcements provide summary information about the company's performance and financial position during the quarter and/or year just ended. The earnings announcement contains much less detail than the financial statements, which are only released after they are prepared and audited. Although the earnings announcement contains few details, it does contain important summary data such as the results of operations. By making an earnings announcement, the company conveys important information to the market in a timely manner.**
- 2-3. The Securities and Exchange Commission serves as an advocate for investors. As such, the SEC requires registrant companies to file periodic standard reports. These reports allow the SEC to oversee the financial reporting activities of the company and allow the SEC to make key financial information available to all investors. Some of the reports required by the SEC are summarized in Exhibit 2.1. The Form 10-K is a filing that includes audited annual financial statements and management discussion and analysis. The Form 10-Q is filed on a quarterly basis and contains quarterly financial statements and management discussion and analysis. The Form 20-F is an annual filing by foreign issuers of financial securities. This report reconciles reports that were prepared using non-U.S. GAAP to reports prepared using U.S. GAAP. The Form 8-K is a report of current activities that must be filed within 15 days of the occurrence of any of the following events: change in management control, acquisition or disposition of major assets, bankruptcy or receivership, auditor change, or resignation of a director. Regulation 14-A is commonly called the Proxy Statement. The Proxy Statement contains details of directors, managerial ownership, managerial compensation, and employee stock options. The Prospectus contains audited statements and other information about proposed project or share issues.**

- 2-4. Contemporary generally accepted accounting principles (GAAP) is the set of rules and guidelines of financial accounting that are currently mandated as the acceptable rules and guidelines for preparing financial reports for the external users of financial information. These rules are comprised of the following: Financial Accounting Standards Board (FASB) Statements of Financial Accounting Standards; Accounting Principle Board Opinions; Accounting Research Bulletins issued by the Committee of Accounting Practices; Pronouncements of the American Institute of Certified Public Accountants such as Statements of Position regarding issues not yet addressed by the FASB; and Industry Audit and Accounting Guidelines for any industry-specific matters. The FASB also issues Emerging Issues Task Force (EITF) Bulletins that contain guidance regarding emerging issues that will be on the agenda of the FASB in the near future. GAAP is also influenced by generally accepted practices in certain industries.**
- 2-5. The accounting profession currently establishes accounting standards. The Financial Accounting Standards Board is currently the primary rule making body. The SEC and the AICPA oversee the activities of the FASB. The FASB proposes rules by first issuing a discussion memorandum. Interested parties are asked to render an opinion regarding the proposal by the FASB. Next, the FASB issues an Exposure Draft of the proposed rule and invites additional comment. Finally, based on input received via the exposure and comment process, the FASB issues the new rule.**
- 2-6. Managers have the main responsibility for ensuring fair and accurate financial reporting by a company.**
- 2-7. Managers have discretion in financial reporting in most cases. This discretion may result from either of two sources. First, managers often have a choice between alternative generally accepted rules in accounting for certain transactions. Second, managers often have to make estimates of uncertain future outcomes. Each of these managerial judgments creates managerial discretion.**
- 2-8. Monitoring and control mechanisms include SEC oversight, internal and external auditor review, corporate governance such as Board of Director subcommittees assembled to oversee the audit and financial reporting, and the omnipresent threat of litigation.**
- 2-9. Statutory financial reports are not the only source of information about a company that is available to interested parties outside of the organization. Other sources include forecasts and recommendations of information intermediaries (analysts), general economic information, general information about the company's industry, and news about the company. Also, management will often provide voluntary disclosure of information that is not required by GAAP or other regulatory mandate.**
- 2-10. Financial intermediaries (analysts) play an important role in capital markets. They are an active and sophisticated group of users that provide useful information to market participants. Tasks performed by intermediaries include collecting, processing, interpreting, and disseminating information about the financial prospects of companies. The outputs of analysts include forecasts, stock buy or sell recommendations, and/or research reports that investors can use to make investment decisions.**

- 2-11.** Under the historical cost model, asset and liability values are determined on the basis of prices obtained from actual transactions that have occurred in the past. Under the fair value accounting model, asset and liability values are determined on the basis of their fair values (typically market prices) on the measurement date (i.e., approximately the date of the financial statements).  
Under historical cost method, when asset (or liability) values subsequently change, continuing to record value at the historical cost—i.e., at the value at which the asset was originally purchased—impairs the usefulness of the financial statements, in particular the balance sheet. Because of this the historical cost model has come under a lot of criticism for various quarters, resulting in the move toward fair value accounting.
- 2-12.** In accounting, conservatism states that when choosing between two solutions, the one that will be least likely to overstate assets and income should be selected. The two main advantages of conservatism are that (1) it naturally offsets the optimistic bias on the part of management to report higher income or higher net assets; and (2) it is important for credit analysis and debt contracting because creditors prefer financial statements that highlight downside risk.
- 2-13.** The two types of conservatism are unconditional and conditional conservatism. Unconditional conservatism understates assets (or income) regardless of the economic situation. An example is writing-off R&D irrespective of the nature of the research. Conditional conservatism understates assets conditioned on the economic situation. An example is an asset impairment charge that occurs when changed economic circumstances lower an asset's economic value below its carrying value. Of the two, conditional conservatism is more useful for analysis because it reflects current economic information in a timely, albeit in an asymmetric, manner.
- 2-14.** Finance and accounting researchers have established that accounting information is indeed relevant for decision making. For example, researchers have shown that accounting earnings explain much (50% - 70%) of the fluctuation in stock price changes. This is some of the most important empirical research about accounting earnings. Accounting earnings are shown repeatedly to explain stock prices better than other available measures such as cash flows or EBITDA. Simply put, if you can predict whether accounting earnings per share will increase or decrease, you can, on average, predict whether the stock price will increase or decrease. Also, book value does a reasonable job in explaining market value changes.
- 2-15.** Financial statement information has several limitations. First, financial statements are released well after the end of the quarter and/or fiscal year. Thus, they are not entirely timely. Second, they are only released on a quarterly basis. Investors often have a need for information more often than just on a quarterly basis. Thus, financial statements are limited by the relative infrequency of their release. Third, financial statements have little forward-looking information. Investors must use the largely backward looking financial statements to generate their own beliefs about the future. Fourth, financial statements are prepared using rules that are promulgated with a relevance and reliability trade-off. The need for reliability causes the relevance of the information to be, in certain instances, compromised. Fifth, the usefulness of financial statement information may also be limited by the bias of the managers that prepare the statements. For example, managers in certain instances may have incentives to

- 2-16. **overstate or understate earnings, assets, liabilities, and/or equity.**
- 2-17. **Timing and matching problems make short-term performance measurement difficult and often less meaningful. Timing problems arise because cash is often not received in the period that the revenues are earned and cash is often not paid in the period that the expenses are incurred. To the extent that the timing of cash receipt does not occur in the period that the goods or services are delivered, a timing problem is created in performance measurement. Likewise, a matching problem can arise because the expenses incurred to generate the revenues may be paid in a different period than the revenue was recorded (earlier period or later period). As a result, performance is not measured appropriately because the economic efforts required to generate the revenues are not appropriately matched against the revenues to measure the net benefit of the activities.**
- 2-18. **Accrual accounting calls for recognizing revenue when the revenue is both earned and realizable. Revenues are earned when the company delivers the products or services. Revenues are realized when cash is received. Revenues are realizable when an asset is acquired for the products or services delivered that is convertible into cash or cash equivalents. The asset received is usually an account receivable that is collectible.**
- 2-19. **Accrual accounting requires that the economic efforts required to generate revenues be matched against the related revenues. As a result, product costs are recognized in the period the related goods are sold. Period costs are matched with revenues of the same period.**
- 2-20. **Short-term accruals arise because of the timing differences between income and cash flows. For example, the accrual of revenues before or after cash is received and the accrual of expenses before or after cash is paid are short-term accruals. Long-term accruals arise from the capitalization of assets that will provide benefits to the company for more than one year.**
- 2-21. **Cash flow measures of performance almost always suffer from the timing and matching problems that accrual accounting was developed to mitigate. For example, cash often is not received in the accounting period when it is earned. Further, expenses are often not paid in the period that the cash of the sale that the expense helped to generate was received. As a result, cash flow measures of performance can be very misleading. Consider for example, a company that increases inventory levels substantially in the fourth quarter of the current year. This company will likely report a negative cash flow from operations. However, they may have had an excellent year and are increasing inventories because they expect continued strong sales.**
- 2-22. **Accrual accounting is a superior measure of performance and financial position relative to cash flows. The factors that give rise to this superiority are the more appropriate timing of revenue recognition and the more precise matching of costs against these revenues. Also, these accruals create a balance sheet that is a more precise indication of the current financial position of the company. As a result, accrual-based income information is more relevant for assessing a company's present and future cash generating ability and accrual-based balance sheets are a better measure of the financial position of the company.**

2-23.

2-24. **Accrual-accounting based income measures repeatedly out-perform cash flow-based measures such as operating cash flow or free cash flow at explaining changes in stock price. That is, increases or decreases in net income have been shown to have a much higher positive relation to increases or decreases in the stock price. Increases or decreases in cash flow measures are much less likely to have corresponding increases or decreases in the stock price.**

2-25. **Cash flows are highly reliable because the receipt or payment of cash measures the cash flows. Accounting net income is less reliable than cash flows because calculating net income often requires estimations of future outcomes. Analysts' forecasts are the least reliable because they are simply an estimate by one or a few individuals. However, in terms of relevance the ranking reverses. Analysts' forecasts are highly relevant because the forecasts can impound additional information and are more timely than accounting income or cash flows. Accounting income is more relevant than cash flows because net income contains the additional information contained in accruals. Cash flow is the least relevant of the performance information alternatives because of timing and matching problems between cash flow and revenues and expenses.**

2-26. **Income (also referred to as earnings or profit) summarizes, in financial terms, the net effects of a business's operations during a given time period. Economic income differs from cash flow because it includes not only current cash flows but also changes in the present value of future cash flows. Similarly, accounting income considers not only current cash flow but also future cash flow implications of current transactions.**

2-27. **The two basic income concepts are economic income and permanent income. Economic income is typically determined as cash flow during the period plus the change in the present value of expected future cash flows, typically represented by the change in the fair value of the business's net assets. Permanent income (also called sustainable income or recurring income) is the stable average income that a business is expected to earn over its life, given the current state of its business conditions. Economic income measures change in shareholder value and is useful in evaluating the total shareholder value created during a period. Permanent income is proportional to shareholder value and is useful in valuing firms using pricing multiples.**

2-28. **Economic income measures the net change in shareholder value during a period. We cannot use economic income to directly value a company. In contrast, permanent income is a measure of the stable income that the firm is expected to generate over the long run. We can get an estimate of firm value by merely multiplying permanent income with an appropriate multiplier. Because of this, economic income measures change in value while permanent income is proportional to value.**

2-29. **Accounting income is the excess of revenues and gains over expenses and losses measured using accrual accounting. As such, revenues are recognized when earned and realized and expenses are matched against the recognized revenues to generate income.**

2-30.

2-31. Economic income is a measure of the change in shareholder value over a period of time. Permanent income is the normal, recurring amount of income that a company is able to earn each period. Accounting income has aspects of both. For example, fair value accounting for investment securities recognizes the change in the value of certain financial assets during the period. This is reflective of economic income. Accrual accounting also measures the operating profit related to ongoing operations which is especially reflective of permanent income.

2-32. The permanent component of accounting income is the portion of total earnings that is expected to persist indefinitely (recur). Revenues and cost of goods sold components are largely permanent income components. The transitory component of accounting income is the portion of total earnings that is not expected to recur. One-time gains or losses on the sale of operating assets are transitory income items for most companies.

2-33. Value irrelevant income components have no economic content and, as the name suggests, have no effect on the value of the company. They are accounting distortions that arise from the imperfections in accounting. An example of a value irrelevant income component is the gain or loss related to a change in accounting principle.

2-34. Core income refers to a current period's recognized income from which all transitory components have been removed. Typically one-time items such as extraordinary items, gain and loss on sale of business units, asset impairments and restructuring charges are removed from net income to estimate core income. Determining core income is an important first step in estimating permanent income, because it provides a measure of income created from the ongoing operating activities for the current period.

2-35. Some of the major adjustments to net income for determining economic income are including various unrealized gains and losses that are included in other comprehensive income, such as unrealized gains/losses on marketable securities or net pension assets.

2-36. Accounting principles can, in certain cases, create differences between financial statement information and economic reality. The principles are promulgated to strike a balance between relevance and reliability. In certain cases, this creates problems. For example, accounting principles require that long-lived assets be recorded on the books at historical cost because this is a reliable number that can be verified by examining documents related to the acquisition of the asset. Economic reality is represented by the current market value of the long-lived asset. Unfortunately, fair market value, while more relevant, is often difficult to determine. Thus, any market value measure might not be entirely reliable. As a result, economic reality is often not reflected in the reported value of long-lived assets like land and buildings. Another example is internally generated goodwill and the value of the work force. Each comprises a significant portion of the overall value of many companies. However, quantifying that value would be difficult. Thus, while relevant, the amount is not reliable enough to formally record and report on the financial statements.

2-37.

2-38. Under the historical cost model, asset and liability values are determined on the basis of prices obtained from actual transactions that have occurred in the past. Under the fair value accounting model, asset and liability values are determined on the basis of their fair values (typically market prices) on the measurement date (i.e., approximately the date of the financial statements). The key difference is the fair value accounting periodically updates asset/liability values even in the absence of explicit transactions.

2-39. Under historical cost accounting, income is the accountants estimate of what an enterprise has “earned” during a period. Under fair value accounting, income is merely the residual amount that measures the net change in the fair values of assets and liabilities.

2-40. Formally, SFAS 157 defines fair value as *exchange price*, that is, the price that would be received from selling an asset (or paid to transfer a liability) in an orderly transaction between market participants on the measurement date. There are five key elements to this definition: (1) the fair value is determined on the measurement date, i.e., date of the balance sheet; (2) it is based on a hypothetical, and not actual, transaction; (3) the hypothetical transaction must be orderly; (4) fair values are market based and not entity specific measurements; and (5) fair values are based on exit, and not entry, prices.

2-41. Consider a cab service that operates in an area without competition and charges very high rates, and is extremely profitable. Therefore, the present value of future net cash flows from the use of each automobile over its normal life in this enterprise is \$ 85,000. However, the blue book value is only \$ 20,000. For fair value purposes we will use \$ 20,000, i.e., the market value, and not \$ 85,000, i.e., the entity-specific value, when valuing the automobiles.

2-42. Two types of inputs are recognized: (1) observable inputs, where market prices are obtainable from sources independent of the reporting company—for example, from quoted market prices of traded securities; and (2) unobservable inputs, where fair values are determined through assumptions provided by the reporting company because the asset or liability is not traded. They are divided into three levels: Level 1 Inputs. These inputs are quoted prices in active markets for the exact asset or liability that is being valued, preferably available on the measurement date. Level 2 Inputs. These inputs are either (1) quoted prices from active markets for similar, but not identical, assets or liabilities or (2) quoted prices for identical assets or liabilities from markets that are not active. Level 3 Inputs. These are unobservable inputs and are used when the asset or liability is not traded or when traded substitutes cannot be identified. Level 3 inputs reflect manager’s own assumptions regarding valuation, including internal data from within the company. Level 3 inputs are the least reliable and therefore least useful for valuation.

2-43. Financial assets/liabilities are easier to fair value. This is because they are more homogenous and usually have liquid markets with traded quotes. Because of this, financial assets/liabilities can be valued using Level 1 or Level 2 inputs. In contrast, most operating assets are not traded in liquid markets and therefore will need to be valued using Level 3 inputs.

2-44.

2-45. **Market approach:** As the name implies, this approach directly or indirectly uses prices from actual market transactions. Sometimes, market prices may need to be transformed in some manner in determining fair value. This approach is applicable to most of the Level 1 or Level 2 inputs. **Income approach:** Under this approach fair values are measured by discounting future cash flow (or earnings) expectations to the current period. Current market expectations need to be used to the extent possible in determining these discounted values. Examples of such an approach is valuing intangible assets based on expected future cash flow potential or using option pricing techniques (such as the Black-Scholes model) for valuing employee stock options. **Cost approach:** Cost approaches are used for determining the current replacement cost of an asset, i.e., determining the cost of replacing an asset's remaining service capacity. Under this approach, fair value is determined as the current cost to a market participant (i.e., buyer) to acquire or construct a substitute asset that generates comparable utility after adjusting for technological improvements, natural wear and tear and economic obsolescence. Income and cost approaches apply to Level 3 inputs.

2-46. The major advantages are: Reflects current information; Consistent measurement criteria; Comparability; No conservative bias. The major disadvantages are: Lower objectivity; Susceptibility to manipulation; Use of Level 3 Inputs; Lack of conservatism; Excessive income volatility.

2-47. Historical cost model generates more reliable accounting information, since all numbers are based on actual transaction, i.e. the exact price paid by the company at acquisition; Fair value model is more relevant, as it reflects market participant (e.g., investor) assumptions about the present value of expected future cash inflows or outflows arising from an asset or a liability.

2-48. Some of the issues that the analyst needs to consider when evaluating fair value accounting are: (1) balance sheet and not income statement is the most important statement under fair value accounting; (2) income under fair value accounting measures change in net assets, it is not a measure of profitability and cannot be used for directly valuing an enterprise; (3) use of fair value assumptions, especially for Level 3 inputs is suspect and must be evaluated for reliability.

2-49. Preparers of financial statements must make certain estimates of uncertain outcomes and make judgments about other uncertainties. For example, the company must estimate the amount of accounts receivables that will ultimately prove uncollectible and must assess the probability and amount of losses that are contingent upon some event or outcome. To the extent that these estimates or judgments are not exactly correct, the financial statements can depart from economic reality.

2-50. Accounting analysis is the process of evaluating the extent to which a company's accounting numbers reflect economic reality. The process involves a number of different tasks, such as evaluating a company's accounting risk and earnings quality, estimating earning power, and making necessary adjustments to financial statements to both better reflect economic reality and assist in financial analysis.

2-51. Accounting analysis involves several interrelated processes and tasks. First, the

- 2-52.** analyst must evaluate the quality of the financial information. To do this, the analyst should identify and assess key accounting policies, evaluate the extent of accounting flexibility that the preparers had, determine the reporting strategy used by the preparers, and identify and assess any red flags of potential misstatements. Second, the analyst must adjust the financial information based on the findings in the evaluation of the quality of the financial information. Adjustments, while rarely perfect, enhance the quality of the financial information that will be used in the analyst's models of financial analysis.
- 2-53.** Accounting distortions are deviations of reported information in financial statements from the underlying business reality. These distortions arise from accounting policy choices, errors in estimation, the trade-off between relevance and reliability, and the latitude in application.
- 2-54.** Managers have several potential incentives to manage earnings. First, managers that earn bonus payments as a function of reported earnings may manage earnings to maximize their bonus. Second, if the company is subject to debt contract constraints (debt covenants) such as minimum net income, minimum working capital, minimum net worth, or maximum debt levels then the manager might have incentive to manage earnings to minimize the probability that the company will violate any of the debt covenant constraints. Third, the company might choose to manage earnings because of potential stock price implications. For example, managers may increase earnings to temporarily boost company stock price for events such as a forthcoming merger or security offering, or plans to sell stock or exercise options. Managers also smooth income to lower market perceptions of risk and to decrease the cost of capital. Still another stock price related incentive for earnings management is to beat market expectations. Fourth, the company might manage earnings downward to reduce political costs from scrutiny from government agencies such as anti-trust regulators and the IRS. It is very possible that Microsoft employed such a strategy when U.S. officials were contemplating anti-trust charges.
- 2-55.** There are several popular earnings management strategies. First, managers often adhere to a strategy of increasing income where latitude exists. The motivation is to portray the success of the company more favorably. Second, managers might take a big bath. This strategy involves taking all discretionary losses in the current period. As a result, net income in the current period is very low but future income is increased. The period chosen to take a bath is usually one with poor performance even before recognition of the additional losses. Third, managers might follow a strategy of income smoothing in which slightly higher than usual earnings are reduced in line with the trend of earnings and slightly lower than usual earnings are increased in line with the trend of earnings.
- 2-56.** Earnings management is the "purposeful intervention by management in the earnings determination process, usually to satisfy selfish objectives" (Schipper, 1989). Incentives to manage earnings are created by contracts tied to accounting numbers, stock price effects of reported accounting numbers, and government scrutiny based on reported accounting numbers.
- 2-57.** Different persons use accrual accounting information and cash flow information to varying degrees in their valuation models. Accrual accounting information is often used in valuation models based on price to earnings multiples, market to book

- 2-58. multiples, and abnormal accounting earnings-based valuation models. Cash flow information is used in such models as discounted dividend and discounted cash flow models.
- 2-59. Accounting concepts and standards are subject to individual judgments and incentives in the promulgation process. Accounting regulation is proposed by accounting regulators and then commented upon by the financial reporting community. Respondents have incentives to get the final standard to conform to their economic desires. As a result, the standards themselves are ultimately a product, at least in part, of these incentives. Likewise, when statements are prepared the preparer has certain choices among alternative accounting policies and has to make estimates of uncertainties. All of these choices and estimates can be influenced by incentives faced by the parties making the choices.
- 2-60. An investor would not be willing to pay as much for a stock, on average, when the accounting information provided to him/her about the firm is unaudited. The reason is that the investor must price protect him/herself against the integrity of the information. That is, the investor must be conservative since he/she is assuming the risks inherent in the business *and* the risk that the information that they are using is not fairly presented in conformity with generally accepted accounting principles (and specifically portrays a more favorable performance and financial position than economic reality).
- 2-61. Auditing standards are broad generalizations that come in three sets:
- (1) *General standards* define the personal qualities required of the independent CPA.
  - (2) *Standards of fieldwork* cover the actual execution of the audit and cover the planning of the work, evaluation of the client's system of internal control, and the quality and sufficiency of the evidence obtained.
  - (3) *Reporting standards* govern the preparation and presentation of the auditor's report. They are intended to insure that the auditor's position is clearly and unequivocally stated and that the degree of responsibility taken is made clear to the reader.
- 2-62. Auditing procedures are tests applied to a company's accounts to develop evidence to support or refute the hypothesis that the reported numbers are prepared according to generally accepted accounting principles and are fairly presented. The basic objective of the financial audit is the detection of errors and irregularities that, if undetected, would materially affect the fairness of presentation of financial summarizations or their conformity with generally accepted accounting principles.
- To be economically feasible and justifiable, auditing can aim only at a reasonable level of assurance about the data under review. This means that, under a testing system, assurance can never be complete and that the final audit conclusions are subject to this inherent probability of error.
- 2-63. The auditor's opinion deals with:
- (a) The fairness of presentation of the financial statements,
  - (b) Their conformity with generally accepted accounting principles, and
  - (c) Disclosure when a material change in accounting principles has occurred.

- 2-64. Auditing is based on a sampling approach to the data under audit. Statistical sampling, while lending itself to many applications in theory, is more limited in actual practice. Thus, most audit tests are based on "judgmental" samples of the data--samples derived by feel, judgment, and evaluation of many factors. Often the size of the sample is necessarily limited by the economics of the accounting practice.**

**The reader must realize that the auditor does not aim at, nor can ever achieve, complete certainty. Even a review of every single transaction--a process that would be economically unjustifiable--would not achieve complete certainty.**

**Auditing is a developing art. Even its basic theoretical underpinnings are far from fully understood or resolved. There is, for instance, no clear relation between the auditor's evaluation of the effectiveness of the system of internal controls, which is a major factor on which the auditor relies, and the extent of audit testing and the nature of audit procedures employed. If we add to that the fact that the qualities of judgment among auditors can vary greatly, we should not be surprised to find that the history of auditing contains many examples of spectacular failures.**

**On the other hand, the percentage of failure to the total number of audits performed is very small. The user of audited financial statements can, in general, be reassured about the overall results of the audit function but must remember that there is risk in reliance on its results. Such risks are due to many factors including the auditor's inability to detect fraud at the highest level and the application of proper audit tests to such an end, the auditor's conception of the range of responsibilities to probe and disclose, and the quality of the audit.**

**While the audit function will generally justify the reliance which analysts place on audited financial statements, such reliance cannot be a blind one. The analyst must be aware that the entire audit process is a probabilistic one subject to many risks. Even its flawless application may not necessarily result in complete assurance and most certainly cannot insure that the auditor has gotten all the facts, especially if there is high-level management collusion to withhold such facts. The heavy dependence of the auditing process on judgment will, of necessity, result in a wide range of quality of performance.**

- 2-65. The auditor maintains that s/he expresses an opinion on management's statements. Auditors are very insistent on this point and attach considerable importance to it. It means that, normally, the auditor did not prepare the financial statements nor did the auditor choose the accounting principles embodied in them. Instead, the auditor reviews the financial statements presented by management and ascertains that they are in agreement with the books and records that are audited. The auditor also determines that acceptable principles of accounting have been employed in the preparation of the financial statements, but that does not mean that they are the best principles that could have been used. It is a well-known fact that management will rely on the auditor, as an expert in accounting, to help them pick the principle which, while still acceptable, will come nearest to meeting their reporting objectives. Finally, the auditor will determine that the minimum standards of disclosure have been met so that all matters essential to a fair presentation of the financial statements are included in them.**

2-66.

One could well ask what difference it makes whether the auditor prepared the statements or not so long as it expresses an unqualified opinion on them. The accounting profession has never clearly explained what the implications of this really mean to the user of the financial statements. However, a number of such possible implications should be borne in mind by the analyst:

- (a) The auditor's knowledge about the financial statements is not as strong as that of the preparer who was in more intimate contact with all the factors which gave rise to the transactions. The auditor knows only what it can see on the basis of a sampling process.
- (b) Since many items in the financial statements are not capable of exact measurement, the auditor merely reviews such measurements for reasonableness. These are not the original determinations and unless the auditor can successfully prove otherwise, as in the case of estimates of useful lives of property, management's determination will prevail. Thus, the auditor's opinion contains no reference to "present exactly" or "present correctly" but rather states that the statements "present fairly."
- (c) While the audit firm may be consulted on the use of accounting principles it, as an auditor rather than as preparer of such statements, does not select the principles to be used. Moreover, it cannot insist on the use of the best available principle any more than it is likely to insist on a degree of disclosure above the minimum considered as acceptable.
- (d) While the preparer must, under the rules of double-entry bookkeeping, account for all items, large or small, the auditor is held to less exacting standards of accuracy. Thus, the error tolerances are wider. The auditor leans on the doctrine of materiality which in its basic concept simply means that the auditor need not concern itself, in either the auditing or the reporting phases of its work, with trivial or unimportant matters. What is important or significant is a matter of judgment and the profession has neither defined the concept nor set limits or established criteria to govern the application of the concept of materiality.

2-67. The auditor's reference to "generally accepted accounting principles" in its opinion should be well understood by the user of the financial statements. Such reference means that the auditor is satisfied that such principles have authoritative support and that they have been applied "in all material respects." Aside from understanding the operation of the concept of materiality, the analyst must understand that the definition of what constitutes "generally accepted accounting principles" is often vague and subject to significant latitude in interpretation and application. Moreover, not all important areas of accounting are covered by authoritative pronouncements that define acceptable practice.

2-68. Following are some of the circumstances that can point to areas of high audit risk:

- (a) Growth industry or company with need for continuing earnings growth to justify high market price or to facilitate acquisitions.
- (b) Company in difficult financial condition requiring financing urgently and frequently.
- (c) Company with high market visibility issuing frequent progress reports and earnings estimates.
- (d) Management dominated mostly by one or a few strong-willed individuals.
- (e) Personal financial difficulties of members of management.

- (f) Deteriorating operating performance.
- (g) Excessively complex capital structure.
- (h) Management which has displayed a propensity for earnings manipulation.
- (i) Problem industry displaying weaknesses, in such areas as receivable collection, inventories, contract cost overruns, dependence on few products, etc.
- (j) Dealings with insiders on related parties or stockholder lawsuits.
- (k) Turnover of key officers, legal counsel or auditors.
- (l) Audit conducted by a firm which has experienced a higher than normal incidence of audit failures.

It should be noted, however, that while none of the above situations can be taken for granted to always indicate situations of higher audit risk, they have been shown by experience to have appeared in a sufficient number of problem cases to warrant the analyst's close attention.

- 2-69. KPMG is paid by Citigroup management to perform the audit and render an independent opinion regarding the fairness of the financial disclosures made by Citigroup. KPMG is providing assurance to all users of the financial statements. Should users be confident that KPMG performed the audit in the interests of the users? A couple of market forces dictate that users can use the information with some confidence. First, KPMG faces substantial litigation risk if they do not perform the audit in conformity with generally accepted auditing standards. Second, KPMG places its professional reputation at stake when it issues an opinion. Many public accounting organizations have been forced to fold because their reputation was injured by a high-profile audit that was found to not be in conformity with generally accepted auditing standards. These firms were forced to fold because there was no longer any demand for their services.
- 2-70. A penny per share misstatement is usually not significant to the user of the financial statements. As a result, correction of such problems is routinely passed upon. However, a penny per share misstatement can, in certain instances, be very significant. For example, if the earnings of the company are very near zero then such a change can be a significant percentage of the reporting earnings or loss. Also, a penny misstatement might allow a company to report earnings that exceed the market's expectation by a penny. The market appears to value such results. As a result, misstatements that cause the company to meet or beat expectations should be considered significant and worthy of correction during the audit process.
- 2-71. The "quality" of earnings of an enterprise is a measure of the degree of care and unbiased judgment with which they are determined, the extent to which all important and necessary costs have been provided for and the variability which industry conditions subject these earnings to. Analysts must assess the quality of earnings in order to render them comparable to those of other enterprises.

The quality of earnings depends, among other factors, on:

- (1) The degree of conservatism with which the estimates of present and future conditions are arrived at. That is, the degree of risk that real estimates or assumptions may prove over-optimistic or downright unwarranted and misleading.

- (2) Management's discretion in applying GAAP. This requires the analysis of discretionary and future directed costs.
- (3) The relation between earnings and business risk. The stability and the growth trend of earnings as well as the predictability of factors that may influence their future levels.

**2-72. Discretionary costs are outlays which management can vary to some extent from period to period in order to conserve resources and/or to influence reported income. Two important categories of discretionary costs are repairs and maintenance and advertising.**

**Discretionary costs are readily subject to manipulation by management who may desire to present a good earnings picture when operational performance is poor in fact. The analyst should realize that an excessive "savings" in the discretionary costs in the current year will inevitably affect future earnings adversely.**

**2-73. The carrying amounts of most assets appearing in the balance sheet ultimately enter the cost streams of the income statement. Therefore, whenever assets are overstated, the income, both present and cumulative, is overstated because it has been relieved of charges needed to bring such assets down to realizable value. The converse should also hold true, that is, to the extent to which assets are understated, the income, current and cumulative, is also understated.**

**For similar reasons as above, an overstatement of income can occur because the latter is relieved of charges required to bring the provision or the liabilities up to their proper amounts. Conversely, an overprovision of present and future liabilities or losses results in the understatement of income or in the overstatement of losses.**

**2-74. The assets and liabilities of an enterprise hold important clues to an assessment of both the validity and the quality of its earnings. Thus, the analysis of the balance sheet is an important complement to the other approaches of income analysis discussed in the book.**

**The importance we attach to the amounts at which assets are carried on the balance sheet is due to the fact that, with few exceptions such as cash and land, the cost of most assets enters ultimately the cost stream of the income statement. Thus, we can state the following as a general proposition: Whenever assets are overstated the income, both present and cumulative, is overstated because it has been relieved of charges needed to bring such assets down to realizable values. Similarly, an understatement of provisions and liabilities will result in an overstatement of income because the latter is relieved of charges required to bring the provision or the liabilities up to their amounts. For example, an understatement of the provision for income taxes, product warranties, or pension costs means that income, current and cumulative, is overstated.**

**Conversely, an overprovision for present and future liabilities or losses results in the understatement of income or in the overstatement of losses. Provisions for future costs and losses which are excessive in amount represent attempts to shift the burden of costs and expenses from future income statements to that of the present.**

Bearing in mind the general proposition regarding the effect on income of the amounts at which assets and liabilities are carried in the balance sheet, the critical analysis and evaluation of such amounts represents an important check on the validity of reported income.

2-75. The concept of earnings quality is so broad that it encompasses many additional factors that can make earnings more reliable or more desirable. These external factors include:

- The effect of changing price levels on the measurement of earnings. In times of rising price levels the inclusion of "inventory profits" or the understatement of expenses such as depreciation lowers in effect the reliability of earnings and hence their quality.
- The quality of foreign earnings is affected by factors such as difficulties and uncertainties regarding the repatriation of funds, currency fluctuations, the political and social climate as well as local customs and regulation. With regard to the latter, the inability to dismiss personnel in some countries in effect converts labor costs into fixed costs.
- Regulation provides another example of external factors that can affect earnings quality. For example, the regulatory environment of a public utility can affect the quality of its earnings if an unsympathetic or even hostile regulatory environment causes serious lags in obtaining rate relief.
- The stability and reliability of earnings sources also affect earnings quality. Defense-related revenues can be regarded as nonrecurring in time of war and affected by political uncertainties in peacetime.
- Finally, some analysts regard complexity of operations and difficulties in their analysis (e.g., highly diversified companies) as factors that negatively affect the quality of earnings.

2-76. Analysts must be alert to accounting distortions. Some of the most common and most pervasive manipulative practices in accounting are designed to affect the presentation of earnings trends. These manipulations are based on the assumptions, generally true, that the trend of income is more important than its absolute size, that retroactive revisions of income already reported in prior periods have little, if any, market effect on security prices and that once a company has incurred a loss, the size of the loss is not as significant as the fact that the loss has been incurred. These assumptions and the propensities of some managers to use accounting as a means of improving the appearance of the earnings trend has led to techniques which can be broadly described as "earnings management."

The earnings management process so as to distinguish it from outright fraudulent reporting must meet a number of requirements. This process is a rather sophisticated device. It does not rely on outright or patent falsehoods and distortions, but rather uses the wide leeway existing in accounting principles and their interpretation in order to achieve its ends. It is usually a matter of form rather than one of substance. Consequently, it does not involve a real transaction (e.g., postponing an actual sale to another accounting period in order to shift revenue) but only a redistribution of credits or charges among periods. The general objective is to moderate income variability over the years by shifting income from good years to bad years, by shifting

future income to the present (in most cases presently reported earnings are more valuable than those reported at some future date) or vice versa.

2-77. Earnings management may take many forms. Listed here are some forms to which the analyst should be particularly alert:

- Changing accounting methods or assumptions with the objective of improving or modifying reported results. For example, to offset the effect on earnings of slumping sales and of other difficulties, Chrysler Corp. revised upwards the assumed rate of return on its pension portfolio, thus increasing income significantly. Similarly, Union Carbide improved results by switching to a number of more aggressive accounting alternatives.
- Misstatements, by various methods, of inventories as a means of redistributing income among the years.
- The offsetting of extraordinary credits by identical or nearly identical extraordinary charges as a means of removing an unusual or sudden injection of income that may interfere with the display of a growing earnings trend.

2-78. There are powerful incentives at work, which motivate companies and their employees to engage in income smoothing. Companies in financial difficulties may be motivated to engage in such practices for what they see and justify as their battle for survival. Successful companies will go to great lengths to uphold a hard-earned and well-rewarded image of earnings growths by smoothing those earnings artificially. Moreover, compensation plans or other incentives based on earnings will motivate managers to accelerate the recognition of income by anticipating revenues or deferring expenses.

Analysts must appreciate the great variety of incentives and objectives that lead managers and, at times, second-tier management without the knowledge of top management, to engage in practices ranging from smoothing to the outright falsification of income.

It has been suggested that smoothing is justified if it can help a company report earnings closer to its true "earning power" level. Such is not the function of financial reporting. As we have repeatedly seen in this work, the analyst will be best served by a full disclosure of periodic results and the components which make these up. It is up to the analyst to average, smooth, or otherwise adjust reported earnings in accordance with specific analytical purposes.

The accounting profession has earnestly tried to promulgate rules that discourage practices such as the smoothing of earnings. However, given the powerful propensities of companies and of their owners and employees to engage in such practices, analysts must realize that, where there is a will to smooth or even distort earnings, ways to do so are available and will be found. Consequently, particularly in the case of companies where incentives to smooth are likely to be present, analysts should analyze and scrutinize accounting practices in order to satisfy themselves to the extent possible, regarding the integrity of the income-reporting process.

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## EXERCISES

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### Exercise 2-1 (10 minutes)

- a. Perhaps the most important disadvantage of complete uniform accounting is that it would be inflexible and, if nationally or internationally adopted, it would be exceedingly difficult to change and to utilize new ideas. In short, total uniformity might freeze the state of accounting at its current level of development. Second, complete uniformity might stifle new approaches and ideas. This would be particularly true from the technical approach to accounting (as contrasted with the economic and business approaches). Third, entirely uniform accounting might not be appropriate for all industries and all countries. Different countries have different economic objectives. For example, uniformity in accounting is more desirable in France where economic planning is important than in Germany, where the long-term trend in accounting has been toward less uniformity. Furthermore, the same accounting system may not be appropriate for the utility industry as opposed to railroads. Accounting must in some respects be tailored to the nature of the business. Fourth, an additional problem is that total uniformity in accounting would be difficult and expensive to implement. Accountants and regulatory authorities would disagree on the standardized form, and small firms would have difficulty shouldering the cost of adopting the full standardized form.
- b. Uniform accounting does not necessarily mean comparability. Uniform accounting can mean (a) uniform classification of accounts (a classification system), (b) a uniform plan (a system of procedures), or (c) total uniformity. The latter would not seem to be desirable in view of the different characteristics of different businesses. For example, different pieces of equipment may have different lives and should be depreciated accordingly. Different mines have different expected reserves and should be depleted accordingly. Different lists of receivables have different quality, and bad debts reserves should accordingly vary. It would seem very unfair and inadvisable to apply the same depreciation rate, the same depletion rate, and the same bad debts reserves for all companies regardless of the nature of their businesses. Thus, comparability might include uniform classification of accounts and a uniform plan but not total uniformity.

**Exercise 2-2 (10 minutes)**

- a. Market prices usually will appropriately increase or decrease in advance of an earnings announcement. For example, stock prices usually rise in advance of a strong earnings report and fall in advance of a weak earnings report. This happens as the market receives information that suggests strong or weak earnings.**
- b. There are many types of information that might be received in advance of earnings announcements. For example, the market can receive signals about the strength of macroeconomic conditions, conditions in the industry, and the relative strengths or weaknesses of sales of the company's products. All of these indicators can contain information about the ultimate strength of the company's earnings. Of course, there are a limitless number of such signals available that can be used to predict earnings with some accuracy.**
- c. The relatively small reaction after the formal announcement represents the market updating the price to account for the difference between the expected earnings based on prior information and the actual earnings report.**

**Exercise 2-3 (10 minutes)**

- a. Summary earnings information is released well in advance of release of the annual report. As a result, when the financial statements are released, the market via the earlier earnings announcement already knows the bottom-line earnings number.**
- b. Release of the income statement does contain additional information for the market because the income statement has much more line item revenue and expense detail than does the earnings announcement.**

**Exercise 2-4 (10 minutes)**

**Quarterly financial reports are subject to seasonal differences. It is not always meaningful to compare for example, the third and fourth quarters for a couple of reasons. (1) Companies might have seasonal sales (consider retailers and the holiday season for example). (2) Companies tend to make most of their large, annual accruals and adjustments in the fourth quarter of the fiscal year. These are the two factors to keep in mind when using quarterly financial information.**

**Exercise 2-5 (10 minutes)**

- a. Form 10-K (Annual Report)
- b. Regulation 14-A (Proxy statement)
- c. Regulation 14-A (Proxy statement)
- d. Regulation 14-A (Proxy statement)
- e. Form 10-Q (Quarterly Report)
- f. Form 8-K (Current Report)
- g. Prospectus

**Exercise 2-6 (15 minutes)**

Several penalties can be imposed upon a manager that contemplates or perpetrates fraudulent revenue recognition. First, the auditors may identify the fraudulent revenue and refuse to issue an unqualified opinion on the financial statements. When this occurs, the managers often relent and correct the misstatement. If the auditor is unable to force a correction, the auditor will either quit or be forced to issue an adverse opinion. Second, the Securities and Exchange Commission may force the manager to restate the financials. This action often results in a stock price drop and questions about the integrity of the manager in the managerial labor market. The SEC may also fine the manager or even prosecute the manager criminally. Third, corporate governance exists to limit the ability of managers to misstate the financial statements. For example, the Board of Directors will form an audit committee that will oversee the audit of the firm. In addition, the Board of Directors will usually hire and oversee internal auditors that should search for such misstatements. Last, but certainly not least, the manager and/or the firm may face litigation as a result of misstatements.

**Exercise 2-7 (10 minutes)**

- a. Yes, the manager is likely to voluntarily disclose this early to lessen the probability of a resulting lawsuit.
- b. Yes, the manager is likely to voluntarily disclose this early to adjust earnings expectations downward.
- c. The manager is less likely to voluntarily disclose this early because it is good news. Usually managers would prefer to simply exceed expectations with the actual announcement of unexpectedly favorable news.
- d. Yes, the manager is likely to voluntarily disclose this to adjust earnings expectations downward in line with his/her lower expected earnings.
- e. Management might voluntarily disclose this under the signaling hypothesis. The signal that the manager would hope to convey via voluntary disclosure is that the market appears to be undervaluing the firm.

**Exercise 2-8 (15 minutes)**

- a. **The primary advantage of financial statements over analysts' forecasts is that financial statements are reliably prepared according to a known set of generally accepted accounting principles. The analysts' forecasts are the result of the analysts' individual beliefs and calculations. Thus, they can be arrived at using an infinite number of models. For example, analysts' forecasts are believed to be biased towards understating earnings.**
- b. **Analysts' forecasts have advantages over financial statement information. First, they are timelier. The analyst can revise the forecast as soon as news is received. Financial statements will only reflect this information the next time they are issued. Also, analysts' forecasts can consider additional signals that aren't captured by financial accounting such as the hiring of talented employees or changing economic conditions. Last, analysts' forecasts are forward looking. Financial statements are only backward looking.**
- c. **Analysts' forecasts and financial statements are interrelated because financial statements are usually a major input into the analysts' forecasting process. Analysts use the backward looking financial statements to help them predict future results and financial position. Also, since analysts are a significant user group, the input of analysts is important when accounting principles are formulated. Thus, analysts have a role in the generation of financial statements.**

**Exercise 2-9 (15 minutes)**

- a. **Historical cost accounting measures assets and liabilities at the original cost at which they were transacted at. Fair value accounting measures assets and liabilities at their fair value (market value) on the date of the balance sheet. Under historical cost accounting entries are made only when an actual transaction arises, under fair value accounting measurements are updated on periodically even in the absence of explicit transactions.**
- b. **Advantages of fair value accounting are: it reflects more current valuation f assets/liabilities, uses a consistent measurement criteria for all assets and liabilities, enhances comparability across firms and time and is useful for equity analysis because it eschews conservatism. The disadvantages of fair value accounting are that it is less reliable and objective and increases susceptibility to manipulation especially when Level 3 inputs are used, it is less useful for credit analysis since it removes conservatism, and income under fair value accounting is excessively volatile and does not reflect underlying operating profitability.**
- c. **Financial assets and liabilities more readily lend themselves to fair value accounting. This is because they are homogenous and are generally traded in**

- d. liquid markets with observable prices. It is more difficult to visualize a situation when operating assets, especially fixed assets and intangible assets are measured at fair value. For such assets it is necessary to use Level 3 inputs to a large extent, and such usage will decrease the reliability and objectivity of accounting information.**
- e. Under fair value accounting, income largely becomes a number that represents the net change in the fair value of assets and liabilities. This number will be very volatile because of movements in the fair value of long-term assets and liabilities. Because of this, income measured under fair value accounting will cease to measure the underlying profitability of an enterprise, which is one of the central quests in financial statement analysis.**

**Exercise 2-10 (20 minutes)**

- a. Accrual accounting income statements are more useful for analyzing business performance than cash flow based statement for a number of reasons. The reasons pertain to the matching and timing problems inherent in cash flow based statements. Accrual based information attempts to recognize revenues when earned and match the related costs against the revenues. This is a reflection of the performance for the month. Cash inflows may or may not occur in the period that the benefits are earned. Likewise, cash outflows may or may not occur in the appropriate period to be matched against the related revenues. As a result, performance measures can be greatly skewed and misleading. Also, accruals have some information value. We can gain some insight by assessing management's estimate of future losses such as bad debts. Last, cash flow performance can be manipulated easily by management. For example, if the manager wants to show better performance on a cash basis, he/she will simply delay the payment of expenses until the first day of the next accounting period.**
- b. The asset side of a cash flow based balance sheet would simply be cash. This is because we make no accruals. As a result, fixed assets would be expensed when paid for rather than being capitalized and depreciated. Likewise, accounts receivables would not be accrued. We would simply recognize revenue when cash is received. The cost of inventory would also be expensed in the period that the inventory is purchased. The asset side of an accrual balance sheet is, of course, much more informative. It would contain items of value like inventory, accounts receivable, and fixed assets.**
- c. Cash flow information is reliable because it involves no estimates, judgments, or choices by the preparer of the information. Instead, the amounts are based on verifiable cash receipts and cash payments. However, this cash flow based information is not always relevant for decision-making purposes. For example, a measure of performance based on cash flows is highly variant and not a great indicator of future cash flows. However, performance measures**

- d. using accrual accounting such as net income are more relevant. These measures, with revenues recognized when earned and costs matched to the revenues, are useful data for assessing past performance and predicting future cash generating capacity. Thus, the information is more relevant than cash flow information.

**Exercise 2-11 (10 minutes)**

- a. Analysts' forecasts are often more relevant than financial statement information for a couple of reasons. First, the forecasts are more timely in that they are often updated based on new information. Financial statements are only issued quarterly. Also, analysts' forecasts can impound information not impounded in financial statements such as beliefs about future macroeconomic changes. Last, analysts' forecasts are forward looking. Financial statement information is backward looking.
- b. Analysts' forecasts are generally not as reliable as financial statements for a couple of reasons. First, financial statement information is based on verifiable transactions and economic events. Second, financial statements are prepared based on a known set of generally accepted principles. Analysts' forecasts are the product of the analyst's model, which may or may not be known to the user. Also, empirical research has shown that, on average, analysts' forecasts are often biased down. That is, actual earnings are, on average, higher than analysts' forecasts creating positive earnings surprises.

**Exercise 2-12 (15 minutes)**

First, the principles underlying accounting information may not be entirely reflective of economic reality. For example, long-lived assets are reported at historical cost less accumulated depreciation. Asset value appreciation is not recognized. As a result, the carrying value of long-lived assets is often not reflective of fair value (economic reality). Also, accounting standards do not allow for the recognition of internally generated goodwill. As a result, the company can be worth far more than the reported book value due to internally generated goodwill that is not recorded in the accounts.

Second, preparing accounting information requires certain judgments and estimates. The actual outcome may or may not equal the estimate. As a result, economic reality may differ from the reported accounting information. For example, a company estimates the amount of obsolescence present in inventory at the end of an accounting period. The actual obsolescence (economic reality) may be greater or less than the amount estimated.

Third, the relevance / reliability trade-off causes differences between reported accounting information and economic reality. For example, consider a firm that is facing a large lawsuit. The amount of the loss will be estimated and disclosed if the probability of loss is high, the amount of the potential loss is significant, and the amount of the ultimate loss can be estimated. If the amount of a loss cannot be estimated, the liability will not be reported on the balance sheet. As a result, economic reality is not reflected in the accounting information.

A fourth reason why accounting information might deviate from economic reality is the latitude that managers have in preparing the information. Managers often use this latitude opportunistically. For example, firms often overstate the amount of certain liabilities such as restructuring charges. These overstated liabilities are then used in the future to increase net income. The overstated liabilities cause differences between economic reality and reported accounting information.

#### **Exercise 2-13 (10 minutes)**

- a. A “cookie-jar” reserve is created in the reserve for bad debts and obsolete inventory by overstating the expected amount of future uncollectible accounts and inventory that is not salable. Overstating the amount of future loss creates hidden reserves in certain liabilities.
- b. In future periods, these overstated reserves can be used to increase earnings. For example, in a period of soft sales, net income can be increased by making a smaller than necessary accrual for bad debts or obsolete inventory. Some past accrual can even be reversed. Likewise, these certain liabilities can be reversed or simply debited for certain expenses rather than an expense account.

#### **Exercise 2-14 (10 minutes)**

- a. Overstated loan loss reserves can be used to manage earnings in the future. As a result, banks often choose to overstate future losses as part of a “big bath” accounting strategy.
- b. In future years, if net income is somewhat less than expected, it can be increased by recognizing less loan loss expense than usual. This is possible because the reserve will still be adequately large since it was overstated in an earlier year.

## PROBLEMS

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### Problem 2-1 (15 minutes)

The standard setting process is of great relevance to the financial analyst because it provides insight into the final product of this process, i.e., accounting standards.

The financial analyst, in order to analyze financial statements intelligently, must have a sound understanding of the standards that underlie the preparation of these financial statements. Since financial accounting standards are the result of the standard setting process, the nature of this process affects the soundness and the lack of ambiguity of the standards. The standard-setting process is at risk to subversion by special interests and by standard setters trying to accommodate all. For example, if standards are written in such a way so as to satisfy different conflicting interests then they are likely to be "soft," i.e., subject to a wide variety of interpretations. That, in turn, can lead to practice that avoids the letter as well as the spirit of the standard.

### Problem 2-2 (15 minutes)

- a. Neutrality lies at the heart of reliability--it implies accounting devoid of ulterior motives and devoid of interests other than that of objective and fair presentation and reporting. It is even-handed with respect to the impact of the information on user's behavior.
- b. Examples are when accounting slants presentations so as to make financial statements present a financial position in a way superior to that which exists or to present results of operations more favorable than were in fact achieved. The motives for such presentations that lack in neutrality relate to the parties' self-interests. Cases can be readily drawn from news media such as *Business Week*.

### Problem 2-3 (20 minutes)

- a. Under current generally accepted accounting standards, measurement means determination of the cost or net realizable value of an asset or liability.

Determining the original cost of an asset, say, in the purchase of land, involves little more than recording the purchase price in most cases. Measuring the fair value of accounts receivable, however, involves estimating how much will ultimately be collected. Here we deal with probabilities based on experience, and this is a different level of precision in measurement.

**Problem 2-3—continued**

- b. Many analysts seem to be offended by the precision implied in the accountant's use of the word "measurement." Equity analysts want the measurement to have a link to or relevance to the ultimate valuation by the market place. This is, however, an altogether different level of measurement and estimation. Analysts may start with accounting measurements but they must build on their assessments of how the market will (1) adjust these accounting measurements to its perceptions of relevant valuation factors and (2) value these, e.g., determine what price-earnings ratios they will accord to the adjusted earnings.**
- c. The two measurement objectives are different. Accountants lay no claim to engaging in valuation. They merely provide the raw material for this process. Accounting measurements aim to estimate the most probable cash flows that will ultimately be realized from an asset or be devoted to the repayment of a liability. Measurement is only selectively concerned with the time value of money.**

**Analysts seek measurements that are relevant to the valuation of the aggregate business enterprise in the context of the market place. Measurement is concerned with the timing of these cash flows and their valuation. In many cases, as a practical matter, it is concerned with the capitalization of the most relevant earnings number. The analyst's measurement starts with that of the accountant and builds on it.**

**Problem 2-4 (20 minutes)**

- a. Pure rules of measurement are possible only when the process of measuring is scientific, objective, and generally incontrovertible. In accounting, rules of measurement cannot be "sold" to those who have to live with them solely on that basis. These rules must be made acceptable to a majority of those who must abide by them. It is this requirement that gives them the character of rules of conduct to be abided by. To many, abiding by such rules may involve sacrifices. Hence, the need for acceptability as well as fairness.**
- b. The process by which acceptability is secured is basically a political process. It requires that those whose concurrence is sought be involved in the decision process, have a voice in the consideration of alternatives, be persuaded that compromises which have to be reached are fair, and recognize the theoretical soundness of the proposed solution.**

**Purists would argue that accounting is a science and that solutions to questions of accounting standards should be arrived at by the "scientific method" of observation, experimentation, and verification. In the final analysis, accounting is more of a service activity than a service governed by natural law. To the extent that accounting is a science, it is a social science subject to the mores of the society of which it is part.**

**Problem 2-5 (20 minutes)**

- a. **Society has brought increasing pressure to bear on accountants in its desire to improve the efficiency with which its assets are priced and its capital investment directed. It has also chosen to exploit the notion that corporation activity is an appropriate point at which to extract taxes from the economy and control economic activity.**

**Aspects of pressure on accountants include the increasing role of securities commissions requiring "full disclosure," the emergence of class action suits, the growing taxation bureaucracy, and the increasing literacy of the populace, including the press, corporate clients, and securities analysts. Indeed, society's developing objectives have made the practice of accounting and auditing increasingly demanding, if not hazardous.**

**Recent reports and hearings by congressional committees are part of society's pressures on accountants so that it is better served.**

- b. **Accountants' accommodation consists mainly of educating the profession and the public and enlarging the professional membership. Standards boards and research committees are sometimes viewed as devices to protect accountants by providing them an authority with which to counter and modify the thrusts of society.**

**The accounting profession can enhance its position and at the same time improve its service to society by insisting that, while numbers are not possible without definitions, by recognizing the uniqueness of each enterprise, qualifications and descriptions enhance meaning and reduce possibilities for abuse of numbers and generally applied definitions.**

**The organized profession's response to congressional action has been to organize politically as well as to promote and promise self-reform. Among these measures are the establishment of a Public Oversight Board by the AICPA, and the establishment of Peer Review as well as the institution of continuing Professional Education.**

**(CFA Adapted)**

**Problem 2-6 (20 minutes)**

- a. In accounting, conservatism states that when choosing between two solutions, the one that will be least likely to overstate assets and income should be selected. The two main advantages of conservatism are that (1) it naturally offsets the optimistic bias on the part of management to report higher income or higher net assets; and (2) it is important for credit analysis and debt contracting because creditors prefer financial statements that highlight downside risk.
- b. The standard setters opinion arises because conservatism violates the “neutrality” requirement of accounting and therefore purportedly reduces reliability. However, one could argue that neutral standards suffer from an optimistic bias because of managers propensity to overstate income and/or net assets. By counteracting this inherent optimistic bias one could argue that conservatism actually increases neutrality in financial reporting.
- c. An equity analyst may prefer a neutral accounting model, like fair value accounting, because equity analysis seeks to also determine upside potential that is not reported in conservative statements. Credit analysts, however, obviously prefer conservative presentation of financial statements.
- d. Many analysts and investors (Warren Buffet) believe that conservative accounting is high “quality” accounting. However, conservatism can reduce accounting quality in many instances. For example, many managers write-off assets through aggressive use of one-time charges. This reduces the information content of the financial statements and allows managers to report excessively higher income in future periods.
- e. The two forms of conservatism are unconditional conservatism and conditional conservatism. Unconditional conservatism refers to understatement of assets without regard to the underlying economics, such as not capitalizing R&D. Conditional conservatism refers to a conservative presentation of economic events by recognizing the future effects of bad news immediately but deferring the recognition of good news. For example, an asset impairment is immediately recognized but an increase in asset values is only gradually recognized through future revenues and cash flows as they arise.

**Problem 2-7 (25 minutes)**

- a. The business observer's view is certainly skeptical, bordering on cynical. Also, there is a good deal of misunderstanding regarding the function of general-purpose financial reports in what he says. It also appears that the observer is confusing the function of the corporate controller (management accountant) with that of the independent public accountant whose function it is to probe and to reveal.

While we have come a long way from the time when almost any financial disclosure was viewed as the giving away of competitive information, there remains a great deal that is not disclosed primarily for competitive reasons. Present-day financial disclosure requirements do not require details about the physical composition of inventories or the identification of specific slow-paying customers. Much additional information which analysts may view as essential need similarly not be disclosed. It is this lack of requirements rather than the accountant's subservience to management that represents the main reason why such information is rarely found in published financial reports. That independent public accountants, whose primary function it is to serve the public interest, are sometimes unduly influenced by management's desires is well known and a problem much in the forefront of public discussion today. (See examples in Appendix 2A and elsewhere in the book.) However, the degree of public disclosure necessary is a matter of public policy, which is importantly influenced by the SEC. The day is long past when accountants were the sole setters of disclosure policy.

For reasons of competition, cost, and other considerations, it is unlikely that all information desired by financial analysts will ever be provided in general purpose public reports. Consequently, this will remain an area where analysts will have to exercise their information-gathering ingenuity to the fullest extent. Much additional information of a statistical nature is often available on request.

- b. The omitted information which the business observer is referring to is the type every serious financial analyst would like to get as much as possible of to assess the risks inherent in a business enterprise as well as the rewards which can be expected from it. Such quantified data as product sales breakdowns, inventory composition, and customer-paying records are indeed data needed by any good management in the conduct and planning of business operations. While analysts will not find these data in most financial statements, they attempt to obtain them, if they need them, from management or from other sources.

In a report based on a survey of financial reports, the Financial Analysts Federation's corporate information committee listed the following most prevalent problem areas:

- Lack of detail in production costs and marketing types of information.
- Lack of non-statement detail, such as labor costs or contracts, pension information, regulations, etc.
- Limited discussion on economic and industry developments that represent current or recent problems, unusual developments or facts not generally available to average investors or shareholders.
- A need for more disclosure of operating statistics already on file with regulatory agencies.

A very important source of narrative as well as quantified information which is available is "Management's Discussion and Analysis of Financial Condition and Results of Operations" which, because of specific SEC requirements, must contain significant and meaningful information.

**Problem 2-8 (15 minutes)**

The logic underlying the "new paradigm" argument is intuitively appealing. Indeed, the future earning potential of many of these companies is based on assets that aren't recognized on accounting balance sheets under GAAP. For example, these companies invest heavily in research and development, which is expensed. As a result, net income and assets are quite low. Since the market is valuing the stock highly, both the price to earnings and price to book ratios are high. However, new paradigm proponents would argue that this is because the base is too low. The future earning potential is very high.

Opponents argue that valuations must ultimately be supported by positive earning ability and they don't believe that these great earnings will materialize given the competitive nature of the high-tech business environment. Further, they argue that "new paradigm"-type arguments are not new. Similar statements were made with all of the great financial "bubbles" of the past. The valuations of these firms is simply momentum investing that is far beyond the fundamental value of the firm given future earnings potential and probabilities of future earnings.

Who is right? At the time of this writing, that is the most debated question on Wall Street and Main Street. There are certain intuitively appealing aspects to arguments on both sides. There is some historical data that supports the view of opponents. Future empirical researchers will spend great energy answering, in retrospect, which argument was more correct. For now, one person's opinion is no better than another.

**Problem 2-9 (10 minutes)**

- a. While the above argument appeals to intuition, it is unworkable. We need a method of profit determination on a periodic basis and we cannot liquidate the business every time a profit measurement is needed.
- b. The most practical solution is the diligent and impartial application of the accrual method of accounting measurement. The assumptions underlying accrual accounting are important to bear in mind as one uses accrual accounting information. For example, accrual accounting assumes that the company can continue as a going concern so that the business will be around to realize the conversion of accrued amounts to cash.

**Problem 2-10 (10 minutes)**

The production company will be providing accounting information in this special setting. The information that is provided should be useful in deciding whether the movie investment is worthwhile and must be somewhat reliable.

- a. The film makers should provide a description of the story or even make the script available. The name of the key production personnel such as producers and directors should be disclosed along with information about past work. Key employees should also be listed including any signed cast members. Also, investors should receive reliable cost projections related to the movie production. This information would enable potential investors to make assessments about the revenue potential of the movie and the expected cost of production.
- b. The prospectus should provide information to enhance the credibility of the information. For example, a complete list of the relevant past works of the producers, directors, and cast members should be provided. Any relevant education and training history for the producers and directors would be useful as well. If available, revenue figures from the past works of the producers, directors, and prominent actors and actresses (the individuals who are most directly related to the revenue potential of the movie) should be provided. This is some evidence to support claims that the production team is able to produce work that produces revenues. The movie cost projections should be classified by major cost type to lend credibility to the overall cost projections.

**Problem 2-11 (15 minutes)**

- a. Discussion of the role the following parties should play in standard setting:
  1. The FASB should be the most important component of the guideline promulgation process. The Board has the knowledge to produce rules that are the best solution to information needs of the capital markets. Their conclusions must be grounded in accounting and finance theory and produced independent of political or other pressures.
  2. The SEC should oversee the FASB to ensure that the Board is continuing to successfully fulfill its role as an independent rule-making body working in the best interests of the accounting profession.
  3. The AICPA should ensure that the FASB is comprised of highly qualified professionals and is continuing to successfully fulfill its role as an independent rule-making body working in the best interests of the accounting profession.

4. Members of Congress are subject to great pressures from important constituencies. Thus, Congress should be kept largely out of the rule-making process. However, this is difficult given the hierarchy that empowers the SEC, the AICPA, and ultimately the FASB to make the rules.
  5. Company CEO's should continue to diligently provide input to the FASB regarding existing rules and regarding proposed new rules. The FASB, in turn, should value the input of the CEO's greatly and use this input as they finalize the rules.
  6. Much like the executives of companies, accounting firm partners should remain active in the rule-making process by providing the FASB valuable input on existing rules and proposed new rules. Again, the FASB should heed the input of the accounting firms.
  7. Investors should play an active, if not the most active, role in accounting standard setting. Investors are the 'end-users' of financial accounting reports, and, as such, should have the most input into the promulgation of standards. However, investors' knowledge of the ramifications of accounting standards and the cost to implement new standards may not be of the best quality.
- b. Company executives diligently pressured Congress to intervene and ensure the FASB does not pass a rule requiring the expensing of the fair value of stock options. The pressure apparently worked. In the end, the FASB passed a compromise rule that suggests but does not require expensing the value of options.

**Problem 2-12 (25 minutes)**

a.

|    |                               | Yr 9              | Yr 8   | Yr 7   | Yr 6   | Yr 5   | Yr 4   |
|----|-------------------------------|-------------------|--------|--------|--------|--------|--------|
| 1. | Net income per share          | 1.04 <sup>a</sup> | 2.07   | 1.57   | 0.91   | 1.04   | 1.22   |
|    | Price per share               | 32.375            | 39.312 | 28.375 | 14.625 | 16.125 | 24.375 |
| 2. | Operating cash flow per share | 2.47 <sup>b</sup> | -0.86  | 3.76   | 1.23   | 0.99   | 0.62   |
|    | Price per share               | 32.375            | 39.312 | 28.375 | 14.625 | 16.125 | 24.375 |
| 3. | Net cash flow per share       | 0.00 <sup>c</sup> | -2.79  | 2.34   | 0.35   | -0.46  | -0.03  |
|    | Price per share               | 32.375            | 39.312 | 28.375 | 14.625 | 16.125 | 24.375 |
| 4. | Free cash flow per share      | 0.91 <sup>d</sup> | -2.41  | 3.19   | 0.82   | 0.07   | 0.14   |
|    | Price per share               | 32.375            | 39.312 | 28.375 | 14.625 | 16.125 | 24.375 |

a: (31.2/30.1)

b: (74.3/30.1)

c: (0.03/30.1)

d: (27.5/30.1)

- b. The net income per share figure best explains stock price. As you can see from your graph, the graph of these two values across time is almost parallel.
- c. Solutions depends on the company and data collected.

**Problem 2-13 (10 minutes)**

The wording in management's discussion and analysis of Marsh suggests that the company decided to "take a big bath" in conjunction with the recognition of the large charge related to the implementation of FAS 121.

Marsh believes that the additional charges taken in the quarter will be perceived less unfavorably by the market than if they had each been recorded in separate quarters. Now the company has recognized all of its losses. These items are no longer looming as losses that need to be recognized. Thus, in the future, net income will be higher.

**Problem 2-14 (10 minutes)**

- a. Earnings smoothing
- b. The earnings record of Emerson reflects primarily a core business that is very stable in nature. Also, excellent management has contributed to the ability of the company to report this impressive string of earnings increases. Lastly, earnings management has had to be used to report the unflinching string of earnings increases. Despite the solid management team and the stable core businesses, it would be very difficult for a company to achieve this record without some earnings management.
- c. In good years, Emerson likely records especially large expense accruals related to estimate future losses. In bad years, the company simply records an amount of expense accrual at the lower end of the acceptable range. By doing this, the company is able to manage earnings to some extent.

- d. In Y5, the company barely beat Y4 earnings (less than 1% increase). It is possible that the company needed to draw upon hidden reserve to beat the Y4 total. Again, in Y8, the company only beat the prior year by 1.9%. The company may have needed to use earnings management to bring earnings above the Y7 total. In Y13, the company beat the previous year by about 3%. Again, earnings management may have been needed to lift earnings that year. There are several years when earnings were much higher than the previous year (e.g., 2, 6, 11, 16, 17, 18, 19, 20). In these years, the company likely created hidden reserves by recognizing larger loss estimates.

**Problem 2-15 (10 minutes)**

The “nail soup” analogy is attention grabbing and uses imagery to make an interesting point. However, most do not agree with the fundamental point asserted. It is true that accruals have a discretionary component and other estimation errors built into it.

To the extent that managers use this discretion opportunistically, the accruals can create some distortion in financial reporting. However, the positive information provided by accruals is of much greater benefit than the distortion created by accruals. To illustrate this, see the graphs in Problem 2-11.

**Problem 2-16 (15 minutes)**

- a. Most agree with the statement. Accruals do, in fact, have disadvantageous properties such as providing an opportunity for some manipulation. However, to ignore them because of a slight imperfection is not prudent.
- b. Accrual accounting information provides a better measure of performance because accruals eliminate the timing and matching problems of revenues and expenses. As a result, accrual-based net income is very useful in assessing the performance of the company and predicting future cash flows.
- c. Many accruals such as interest expense are largely non-discretionary. As a result, the amount of the accrual is reliable and verifiable. The imperfections of accrual accounting arise from the discretionary nature of certain accruals. These accruals involve predictions about the future that are slightly less reliable because of uncertainty about the future. Thus, accrual-based information may not exactly depict “economic reality.” However, the information is closer to economic reality than if no accruals were recorded.

- d. The prudent approach to analysis using accrual accounting information is to review the nature of the accruals for a company. If the company's management appears to have had many discretionary accruals than this should be considered in the analysis. Discretionary accruals lead to the possibility of lower quality financial reporting. The quality of the information can be enhanced via accounting analysis and recasting certain disclosures to more closely reflect accounting reality.

**Problem 2-17 (30 minutes)**

The quarter ended September 30, 20X9 contains two unusual items. First, the company recorded the effect of a change in the accounting rules related to software development. This change resulted in additional income totaling \$68 million (approximately \$44 million after tax). Second, the company recorded a gain on sale of receivables totaling \$36 million after incremental tax expense. If reported net income is reduced by these amounts, net income is actually less than the third quarter of the previous year.

After these adjustments are made, earnings per share is approximately equal to the prior year. Return on equity as reported is 25.3%. This suggests equity totaling approximately \$2,561 ( $\$648 / .253$ ). If net income is reduced by the \$80 million of unusual items, return on equity falls to 22.2%. Again, this would suggest that performance in the current quarter was worse than that of the same quarter in the prior year. Thus, while 22% return on equity is quite good, it is not as good as the reported 25%. Also, the trend would be much less positively sloped.

## CASES

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### Case 2-1 (15 minutes)

- a. The management of Dell, Inc. is responsible for the preparation and integrity of the consolidated financial statements and related notes that appear in the annual report. This is stated in the letter of Management's Responsibility for Financial Statements.
- b. Note #1: Description of Business and Summary of Significant Accounting Policies
- c. The international accounting firm of PriceWaterhouseCoopers LLP issued an unqualified (clean) opinion on the Dell financial statements.
- d. Yes, estimates are used. The company discusses this in note #1 (Use of Estimates).

### Case 2-2 (30 minutes)

- a. Political influences on accounting are, and remain, strong. The SEC's resistance to the adoption of the preferred successful accounting method was strongly influenced by pressure not only from affected oil companies but also by congressmen from oil-producing states.

The bending of rules was narrowly avoided when the commission stood up to the companies and to its staff. Had the SEC acquiesced to this bending of rules in time of stress, accounting integrity would have suffered another blow.

- b. Tenneco's change in accounting method seems designed to avoid a write-off to income of capitalized production costs that exceed the SEC-defined ceiling which are affected by dropping oil prices.

Tenneco had demonstrated how companies could use accounting rules to their advantage. Tenneco's past drilling expenses would be offset against past reported results and would never appear on a current income statement. Those costs will now be matched against revenues earned at a time when oil prices were much higher than at present.

While analysts may be able to adjust for the effects of Tenneco's accounting strategy their task in assessing the company's real earning power will be rendered more difficult.

Case 2-3<sup>B</sup> (60 minutes)

- (1) The tonnage-of-production method provides an especially good matching of depreciation expense against revenues for Canada Steel's highly cyclical business. A unit-of-production method effectively makes depreciation a variable rather than a fixed cost and, therefore, tends to stabilize earnings. Casting metals is not a high technology business, and actual wear and tear on the equipment is more relevant to replacement need than technological obsolescence.

A switch to straight-line would not eliminate the deferred tax liability as this difference is caused by accelerated methods and shorter lives rather than the difference between the tonnage-of-production and straight-line methods. Moreover, Canada Steel should not attempt to extinguish this liability since it is an interest-free loan from the government, which may never have to be repaid as long as new assets are acquired.

A switch to straight-line would leverage profits on any production increase (or decrease) because depreciation expense would be a direct function of *time* rather than *units produced*. However, the quality of earnings could be reduced by a switch to straight-line inasmuch as this method would accentuate the highly cyclical nature of our business and result in an increased net income volatility.

- (2) The reasons for adopting the LIFO method--reducing taxes and increasing cash flow--are still valid. Inflation usually declines during recessions, but this does not mean its recurrence is improbable. Maximizing cash flow remains important to the corporation and shareholders. A return to FIFO would relinquish the tax savings of prior years, although it is true that the balance sheet and income statement would be strengthened by the change.

The quality of earnings is likely to be affected adversely by the lack of consistency in inventory method (two changes in a period of several years) and a perception that the motive in making the change was to increase book value per share, avoid two consecutive unprofitable years, and escape violation of a loan covenant. The \$4 million upward adjustment in working capital is a result of increasing the inventory account by this amount, which has the effect of increasing the current ratio as shown below:

|                           | <i>LIFO</i> | <i>FIFO</i> |
|---------------------------|-------------|-------------|
| Current Assets .....      | \$10.5      | \$14.5      |
| Current Liabilities ..... | \$ 4.5      | \$ 4.5      |
| Current Ratio .....       | 2.3         | 3.2         |

The \$0.5 million increment to net income will offset an operating loss of \$0.4 million, which would not be unexpected on a sales decline of 31%.

In addition, the \$2.0 million addition to shareholders' equity from prior years' profits is likely to be far less significant than current profit trends, as Canada Steel has had to disclose regularly in the footnotes to its financial statements the difference in inventory values resulting from the use of LIFO versus FIFO.

**Case 2-3<sup>B</sup>—continued**

- (3) The inventory change will enable Canada Steel to meet the minimum current ratio requirements. However, the stock repurchase program should not be recommended for the following reasons:**
- a. The proposed repurchase price of \$100 per share is well above book value and recent market prices, suggesting dilution for remaining shareholders.**
  - b. The potential dividend savings are outweighed by interest costs of \$118,800 (\$2.0 million x 11% x (1-0.46 marginal tax rate)) to finance the purchase--in other words, leverage is negative.**
  - c. The debt-to-equity ratio is increased significantly from 10% (\$2.0 million long-term debt/\$17.7 million equity + \$2.0 million long-term debt) to 35% (\$6.1 million long-term debt/\$11.4 million equity + \$6.1 million long-term debt). An additional \$2.0 million of stock repurchased would raise this ratio to 41% (\$8.1 million long-term debt/\$11.5 million equity + \$8.1 million long-term debt). The increased financial risk is particularly inappropriate for an industry with significant sensitivity to the business cycle. Shrinking shareholders' equity under present circumstances is prudent only by sale of fixed assets, not the incurrence of additional debt.**

**In summary, each of the foregoing would have a negative impact on the quality of Canada Steel's earnings.**