Synthesis: Significance and Implications of Alternative Accounting Principles

Web

Learning Objectives

1. Review the process through which standard-setting bodies establish acceptable accounting principles.
2. Review the generally accepted accounting principles discussed in the text, emphasizing the effects of alternative principles on the financial statements and on assessments of the quality of earnings and quality of financial position.
3. Consider the effects of alternative accounting principles on investment decisions and market values of firms.
4. Understand the factors that firms consider in choosing their accounting principles from the set of acceptable principles.

The independent accountant expresses an unqualified opinion on a firm's financial statements by noting that the statements follow generally accepted accounting principles (GAAP). The book described and illustrated the important accounting principles that firms currently use in preparing their financial statements. This web site reading focuses on the following questions:

1. How do standard-setting bodies select the set of GAAP from the universe of possible principles?
2. How do alternative accounting principles affect the financial statements?
3. How do alternative accounting principles affect investment decisions and the market prices of a firm's debt and equity securities?
4. What criteria should a firm use to select its accounting principles from those that the accounting profession considers generally acceptable?

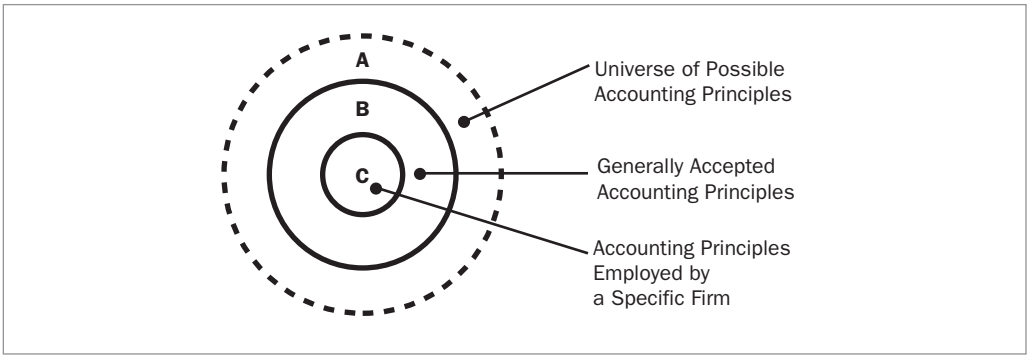
Refer to **Figure 1**. **Circle A** indicates the universe of possible accounting principles. The dashed line represents the difficulty of defining the relative size, or boundaries, of possible accounting principles. **Circle B** represents the set of accounting principles designated as generally acceptable by standard-setting bodies. **Circle C** represents the particular accounting principles that a firm selects to prepare its financial statements. This reading discusses the narrowing from **Circle A** to **Circle C**. Anyone who understands the significance and implications of alternative GAAP can read and interpret published financial statements more effectively. This reading uses the terms *accounting principles, standards,* and *methods* interchangeably.

Establishing Acceptable Accounting Principles

A standard-setting body within each country typically has authority to select the accounting principles that firms must follow in preparing financial statements within that country. **Chapter 1** discussed several issues regarding the selection and operation of this standard-setting body:

1. Should a governmental body or a private-sector body set acceptable accounting principles?
2. Should standard-setting bodies require uniform accounting principles for all firms, or should they allow firms a degree of flexibility to choose the accounting methods that most effectively measure the economic effects of their activities?
3. Should standard-setting bodies follow a rule-based approach in setting accounting standards, or provide general principles that provide firms with more latitude in the way they account for various transactions?

FIGURE 1 Structure of Accounting Principles



Standard Setting in the United States

Congress has the ultimate authority to specify acceptable accounting principles in the United States. It has delegated its authority in almost all cases to the **Securities and Exchange Commission (SEC)**, an agency of the federal government. The SEC has indicated that it will generally accept pronouncements of the **Financial Accounting Standards Board (FASB)** as constituting acceptable accounting principles. Although this delegation of authority suggests that the standard-setting process resides primarily in the private sector in the United States, in reality the SEC and the FASB communicate continually as reporting issues arise. The FASB, at the SEC's urging, formed the Emerging Issues Task Force (EITF) to deal with new reporting issues when the FASB has not yet issued statements.

Firms in the United States have varying degrees of flexibility in choosing their accounting principles. In some instances, the specific conditions associated with a transaction or event dictate the accounting method used. For example, the method of accounting for investments in common stock of other firms depends primarily on the ownership percentage. In other instances, firms have wider flexibility in choosing among alternative methods, such as in selecting a cost flow assumption for inventories and cost of goods sold and in selecting depreciation methods. One might characterize the range of acceptable accounting principles in the United States as one of constrained flexibility.

The delegation of authority to the SEC and the FASB to set accounting principles in part recognizes that the information needs of users of financial accounting reports differ from the government's need to raise tax revenues. Thus, with the exception of the LIFO cost flow assumption for inventories, firms need not use the same methods of accounting for financial reporting as it uses for tax reporting.

In selecting accounting principles, the FASB follows a process that incorporates both deduction from general principles and, in some cases, a detailed rules approach. **Figure 1.4** in **Chapter 1** summarizes the FASB's **conceptual framework**. **Chapters 2** through **4** discuss more fully the concepts of assets, liabilities, revenues, expenses, and cash flows. The FASB uses this conceptual framework in guiding its selection of acceptable accounting principles.

The conceptual framework does not always give the FASB clear guidance when it considers alternative methods to account for a particular transaction or event. The conceptual framework includes broad financial reporting objectives and general concepts. Standard-setters often logically deduce more than one accounting method from such a framework. Furthermore, preparers and users of financial accounting reports often lobby for other methods to account for a transaction or event. They sometimes argue that they cannot cost-effectively apply accounting methods under consideration by the FASB or that the methods will seriously disrupt firms' decisions or capital markets. Refer, for example, to the discussion in **Chapter 12** on the accounting for employee stock options. The FASB initially proposed an accounting method that would have required firms to recognize additional expenses, thereby lowering net income. Intense lobbying against the proposed accounting standard bombarded the FASB. The FASB at the time settled on a standard that allowed firms to disclose the earnings effects of stock options in notes to the financial statements instead of in the income statement. Subsequent pressure from regulators, analysts, and academics led the FASB to reconsider the accounting for stock options and to require the market value method. Such lobbying shows the political nature of the standard-setting process and illustrates the difficulties that standard-setting bodies encounter when moving from **Circle A** to **Circle B** of **Figure 1**.

Standard-Setting in Other Countries

Until recently, the standard-setting process varied widely across countries. Governmental agencies played a major role in establishing acceptable accounting principles in some countries. Examples include Germany, France, and Japan. The methods of accounting that firms used for financial reporting closely conformed to the methods of accounting used in preparing income tax returns. Ownership of common stock in these countries typically resided in a few wealthy families and in large corporations and financial institutions. These shareholders closely monitored the activities of the businesses that they owned. Thus, there was less need to use financial statements as a source of information for assessing operating performance and financial position. The need to raise income taxes in an efficient manner and the desire to use the income tax system to achieve certain public policy goals had a major influence on establishing acceptable accounting principles.

Other countries followed a standard-setting process similar to that of the United States: a private-sector body set acceptable accounting principles. Examples include the United Kingdom, Canada, and Australia. Broad public ownership characterizes stock ownership in these countries. Financial statements serve as a major source of information for shareholders to monitor the activities of firms in which they invest funds. The accounting principles that firms use for financial reporting often differ from the methods used for income tax purposes.

These different approaches to setting accounting standards resulted in different accounting principles across countries and a lack of comparability of financial statement information. The **International Accounting Standards Board (IASB)** and its predecessor organization, have endeavored since the early 1970s to achieve greater uniformity in accounting principles. The IASB has no legal authority to set accounting principles within individual countries. Its process has been to encourage IASB representatives to obtain their countries' acceptance of pronouncements of the IASB. Firms in the European Community must prepare their financial statements according to IASB standards beginning in 2005.

Review of Generally Accepted Accounting Principles

This section summarizes the major currently acceptable accounting principles in the United States and as set forth by the IASB. Various chapters in the book have discussed these GAAP.

Revenue Recognition

A firm may recognize revenue

1. at the time it sells goods or renders services (typical under the accrual basis of accounting), or
2. at the time it collects cash (installment method or cost-recovery-first method), or
3. as it engages in production or construction (percentage-of-completion method for long-term contracts), or
4. perhaps not until the customer no longer has the right to return goods for a refund (such as when a firm gives customers the right to return goods for a specified time after purchase).

Recognizing revenue at the time of production or construction reports the largest *cumulative* income statement earnings and balance sheet assets. Recognition at the time of sale reports the next-largest cumulative income and assets, followed by recognition at the time of cash collection or at the time the refund period expires. However, the revenue recognition method that produces the largest earnings for any particular accounting period depends on the growth characteristics of a firm. Growing firms generally report the largest earnings each period when they recognize revenue at the time of production or construction. Declining firms generally report the largest earnings each period when they recognize revenue at the time of cash collection. When firms neither grow nor decline, the income recognition methods usually report similar earnings amounts each period. To repeat a theme of this book, over long time periods, cumulative income must equal cash inflows minus cash outflows other than transactions with owners. Different revenue recognition methods, and different accounting methods generally, affect only the timing of recognition, not the amount of revenue.

To recognize revenue, a firm must have

1. performed all, or most, of the services it expects to provide, and
2. received cash or some other asset, such as a receivable, susceptible to reasonably precise measurement.

The generality of these criteria provides firms with flexibility in choosing their revenue recognition method. Most firms recognize revenue at the time they sell (deliver) goods or render services. Firms that conduct operations using multiyear contracts, such as construction companies, generally recognize revenue throughout the contract period using the percentage-of-completion method.

Uncollectible Accounts

A firm may recognize an expense for uncollectible accounts in the period when it recognizes revenue (allowance method) or in the period when it discovers that it cannot collect specific accounts (direct write-off method). The allowance method results in the smallest cumulative earnings and assets on the balance sheet because it recognizes bad debt expense earlier than the direct write-off method. The method that produces the largest earnings for any particular period depends on the growth characteristics of the firm and on the amounts judged uncollectible during the period.

GAAP require firms with predictable uncollectible amounts to use the allowance method in financial reporting. Income tax laws require U.S. firms to use the direct write-off method for tax reporting under all circumstances.

Inventories

A firm generally reports its inventories using the lower of acquisition cost or market value method. When the firm cannot (or chooses not to) specifically identify which goods it sold, the firm makes a cost flow assumption. Allowable cost flow assumptions include FIFO, LIFO, and weighted average, although the IASB expresses a preference for FIFO or weighted average. FIFO generally provides the largest earnings and assets valuations when acquisition costs increase and the lowest earnings and assets valuations when acquisition costs decline. LIFO usually provides the smallest earnings and assets valuations when acquisitions costs increase and the highest when they decline. The weighted-average cost flow assumption provides earnings amounts between those for FIFO and LIFO but with expense, income, and asset valuation amounts more similar to those under FIFO than under LIFO.

The extent to which net income and assets differ under FIFO, LIFO, and weighted-average cost flow assumptions depends on three factors: the relative magnitude of acquisition cost changes, the rate of inventory turnover, and the presence or absence of a LIFO layer liquidation. Relatively small changes in acquisition costs cause minor differences in earnings and asset valuations, whereas larger changes magnify the differences. A rapid rate of inventory turnover reduces the difference in effects of the three cost flow assumptions, whereas a slower rate magnifies the differences. If a firm must dip into old LIFO layers priced at acquisition costs significantly higher or lower than current costs, generalizations about the effect of LIFO on earnings and assets will not hold.

Firms have some latitude in selecting a cost flow assumption for financial and tax reporting. A U.S. firm must, however, use LIFO for financial reporting if it uses LIFO in tax reporting.

Investments in Securities

A U.S. firm accounts for investments in the common stock securities of other firms using the market value method or the equity method, or it prepares consolidated statements, depending on its ownership percentage. IASB standards also permit the use of the lower-of-cost-or-market method. These four accounting methods provide different financial statement effects as follows:

Accounting Method	Income Statement	Balance Sheet
Market Value	Dividends received or receivable and realized holding gains and losses for securities available for sale and realized gains and losses for trading securities	Market value
Lower of Cost or Market	Dividends received or receivable, unrealized holding losses, realized holding gains and losses	Lower of cost or market
Equity	Share of investee's earnings	Acquisition cost plus share of investee's earnings minus dividends received
Consolidation	Subsidiary's revenues and expenses minus minority interest in net income of subsidiary	Subsidiary's assets and liabilities minus minority interest in net assets of subsidiary

Net income reported by the equity method equals that reported in consolidated statements, although individual revenue and expense amounts differ. Total assets and total liabilities in consolidated statements usually exceed those under the equity method, but total shareholders' equity is the same under the two methods.

The accounting method used for financial reporting depends primarily on the owner's ability to significantly influence the investee company, with presumption of influence based on the percentage of outstanding shares held. U.S. firms holding less than 20 percent of another firm's outstanding shares generally use the market value method. Firms in most other countries use the lower-of-cost-or-market method. The equity method applies to holdings between 20 percent and 50 percent. Generally, firms must prepare consolidated financial statements when the ownership percentage exceeds 50 percent. Firms must use the equity method when owning less than 20 percent if they can exert significant influence over an investee and must not use it, even when owning more than 20 percent, if they cannot exert significant influence. Firms do not consolidate a majority-owned subsidiary if they control it only temporarily. For example, a firm would not consolidate a subsidiary if it intends to dispose of its controlling interest soon. A firm would also not consolidate a subsidiary if it cannot exercise majority control. For example, a parent company would not consolidate a subsidiary in bankruptcy, and therefore under the control of the courts, or a subsidiary in a foreign country that does not allow the parent to withdraw cash or other assets from the subsidiary.

Derivatives

Firms often acquire derivative securities to hedge the risk of changes in interest rates, exchange rates, and commodity prices. Firms revalue both the derivative security and the item subject to the hedge to market value each period. Unrealized holding gains and losses on both the derivative security and the item hedged appear in net income each period for fair value hedges. The unrealized holding gain or loss on cash flow hedges appears in other comprehensive income for cash flow hedges until the firm settles the item hedged. At this time, the unrealized gain or loss becomes a realized gain or loss and the firm transfers the amount from other comprehensive income to net income. GAAP treats derivatives not deemed hedges as marketable trading securities, with the accounting similar to that for fair value hedges.

Machinery, Equipment, and Other Depreciable Assets

Firms may depreciate fixed assets using the straight-line, declining-balance, sum-of-the-years'-digits, or units-of-production methods. In countries where tax reporting historically played a major role in establishing acceptable accounting principles, such as Germany, France, and Japan, firms tend to use accelerated depreciation methods for financial reporting. In countries with a history of using different methods of accounting for financial and tax reporting, such as the United States and the United Kingdom, firms tend to use the straight-line method.

The straight-line method usually provides the largest cumulative earnings and asset valuations, followed by the sum-of-the-years'-digits method and then the declining-balance methods. The financial statement effects of the units-of-production method depend on the intensity of use of the asset. The straight-line method usually results in the largest earnings for any period when a firm increases its depreciable assets and the smallest earnings when a firm decreases depreciable assets. When acquisition costs of depreciable assets remain stable and firms maintain their level of investment in such assets, the depreciation methods produce similar earnings and balance sheet effects.

Firms can choose any of these depreciation methods for financial reporting. Firms will frequently use different estimates of service lives for similar assets, partly as a function of the intended intensity of use and the maintenance or repair policy. Income tax laws specify the depreciation methods and service lives for various types of depreciable assets. The depreciation rates incorporate declining-balance depreciation methods. Income tax laws in most countries do not require conformity between financial and tax reporting for depreciable assets, but there are exceptions.

Firms must test depreciable assets periodically for impairment when an event occurs suggesting that the fair value of the asset has declined below its book value. The test for an asset impairment in the United States compares the undiscounted cash flows anticipated from the asset with its book value. If the book value exceeds the undiscounted cash flows, an asset impairment has occurred. The firm then measures the amount of the impairment loss by comparing the fair value of the asset (market value or present value of expected cash flows) with the book value. The excess of the book value over the fair value is the amount of the impairment loss.

Corporate Acquisitions

Firms account for the acquisition of another firm using the purchase method. The purchase method results in reporting the assets and liabilities of the acquired company at the market value of the consideration given to execute the acquisition. When the acquisition price exceeds the market value of identifiable assets and liabilities, goodwill appears as an asset on the post-acquisition consolidated balance sheet.

The market value of the consideration given in most acquisitions exceeds the book values of the assets and liabilities of the acquired firm. The purchase method will report lower future earnings because future expenses derive from the initially higher asset valuations. Firms in the United States cannot amortize goodwill and other intangibles with indefinite lives. Instead, firms must test goodwill and other intangibles with indefinite lives annually for impairment. Firms in most other countries must amortize goodwill over some number of future years. The IASB sets 20 years as the maximum amortization period unless a firm can justify a longer period.

Leases

A firm using property rights acquired under lease may record the lease as an asset and subsequently amortize it (the capital, or finance, lease method) or the firm may recognize the lease transaction only as the company uses the asset and must make lease payments each period (the operating lease method). Likewise, the lessor (the provider of the property rights under lease) can set up the rights to receive future lease payments as a receivable at the inception of the lease (the capital, or finance, lease method) or can recognize the lease only when the lessor becomes entitled to receive rental payments each period (the operating lease method).

From the lessee's perspective, total expenses over the life of a lease do not depend on the accounting method. Remember: total expense ultimately equals total cash outflow. Depreciation and interest expenses under the capital lease method usually exceed rent expense under the operating lease method during the early years of a lease. The operating lease method reports higher total expenses during the later years of a lease. By the end of the lease term, expense totals will equalize. Lessees with growing lease activity will likely show higher expenses each year using the capital lease method than they would show using the operating lease method because more of their leases are in the early years of the lease period. Firms

with a declining level of leases should experience earnings effects just the opposite of those for a firm with a growing level of leases. The choice of accounting method for leases causes major differences in balance sheet amounts. The capital lease method includes the leased asset and the lease liability on the balance sheet, whereas the operating lease method does not. Because of the lessee's increased debt-equity ratio under the capital lease method, many managers prefer operating lease accounting.

From the lessor's perspective, total revenues over the life of the lease do not depend on the accounting method. Remember: total revenue ultimately equals total cash inflow. Because lessors often recognize a gain at the inception of a capital lease (equivalent to gross margin in a sales transaction), cumulative earnings for the lessor using the capital lease method generally exceed those of the lessor using the operating lease method until the final year of the lease. Lessors tend to report slightly higher asset valuations under the capital lease method.

- Under the capital lease method, the balance sheet shows the lease receivable, which declines as the lessor receives cash.
- Under the operating method, the balance sheet shows the asset itself, which declines in amount as the asset depreciates.

Whether a firm uses the capital or the operating lease method for financial reporting depends on which firm, the lessor or the lessee, bears the risks of the leased asset. Risks include uncertain residual values of the leased asset at the end of the lease period, due either to excessive use or obsolescence, changes in interest rates, changes in the demand for goods produced or services rendered with the leased asset, and similar factors. Comparing the life of the lease to the life of the leased asset and the present value of the lease payments to the market value of the leased property at the inception of the lease determines which entity bears the risks. The capital lease method applies when the lessee bears most of the risks, and the operating lease method applies when the lessor bears the risks. The facts of each lease agreement determine the appropriate method. The lessor and the lessee generally use the same method for a given lease because they apply the same capital-versus-operating lease criteria. There is, however, no requirement that they coordinate their decision about the accounting method. The criteria for a capital versus an operating lease for tax purposes differ somewhat from those used for financial reporting. Thus, firms may account for the same lease using different methods for financial and tax reporting.

Employee Stock Options

A U.S. firm compensating its employees by granting them options to purchase its shares must value the options at market value and amortize their cost over the expected period of benefit.

Summary

The preceding discussion does not list all of the alternative GAAP in the United States and as provided by the IASB. Advanced courses in financial accounting consider additional reporting areas involving differences in accounting principles. Firms must disclose their accounting principles in a note to the financial statements.[1]

Firms enjoy considerable latitude in applying GAAP for a particular item. For example, firms using the allowance method for uncollectible accounts base their periodic provisions on judgments of the amount of bad debts. Firms using the straight-line depreciation method base their depreciation calculations on judgments of useful life and salvage value. Thus, uniformity in the accounting principles used by two firms does not necessarily result in comparable earnings and asset valuations for these firms. Firms seldom disclose sufficient information about their application of particular accounting principles to permit financial statement users to assess the degree of comparability between firms.

Firms can also manage their reported earnings by timing their expenditures. Recall from earlier chapters that firms must generally expense, as incurred, expenditures on research and development, advertising, and maintenance of depreciable assets. Firms can accelerate or defer their expenditures, however, to achieve higher or lower earnings for a particular period.

Thus, an assessment of the effects of alternative accounting principles must consider not only the principles themselves but how firms apply those principles.

An Illustration of the Effects of Alternative Accounting Principles on a Set of Financial Statements

This section illustrates the effects that the use of different accounting principles can have on a set of financial statements. We constructed the illustration so that the accounting principles used create significant differences in the financial statements. Therefore, do not try to infer from this example the usual magnitude of the effects of alternative methods.

[1] Accounting Principles Board, *Opinion No. 22,* "Disclosure of Accounting Policies," 1972.

The Scenario

On January 1, two identical corporations establish merchandising businesses. The two firms carry out identical operations and differ only in their methods of accounting. Conservative Company chooses the accounting principles that will minimize its reported net income. High Flyer Company chooses the accounting principles that will maximize its reported net income. The following events occur during the year.

1. Both corporations issue two million shares of $10-par value stock on January 1, for $20 million cash.
2. Both firms acquire equipment on January 1 for $14 million cash. The firms estimate the equipment to have a 10-year life and zero salvage value.
3. Both firms make the following purchases of merchandise inventory:

Date	Units Purchased	Unit Price	Cost of Purchases
January 1	170,000	@$60	$10,200,000
May 1	190,000	@$63	11,970,000
September 1	200,000	@$66	13,200,000
Total	560,000		$35,370,000

4. During the year, both firms sell 420,000 units at an average price of $100 each. The firms make all sales for cash.
5. During the year, both firms have selling, general, and administrative expenses, excluding depreciation, of $2.7 million.
6. The income tax rate is 35 percent.

Accounting Principles Used

The following sections describe the methods of accounting used by each firm and the effects that each choice has on the financial statements.

Inventory Cost Flow Assumption Conservative Company makes a LIFO cost flow assumption, whereas High Flyer Company makes a FIFO assumption. Each firm uses its chosen method for both financial reports and income tax returns. Because the beginning inventory is zero, the cost of goods available for sale by each firm equals the purchases during the year of $35,370,000. Both firms have 140,000 units in ending inventory. Conservative Company therefore reports a cost of goods sold of $26,970,000 [= $35,370,000 – (140,000 x $60)], whereas High Flyer Company reports a cost of goods sold of $26,130,000 [= $35,370,000 – (140,000 x $66)]. Income tax regulations in the United States require a firm to use LIFO in its financial reports if it uses LIFO for its tax return. High Flyer Company does not want to use LIFO in its financial reports and therefore forgoes the tax savings opportunities from using LIFO for tax purposes.

Depreciation Conservative Company decides to depreciate its equipment using the double (200 percent) declining-balance method in its financial statements, whereas High Flyer Company decides to use the straight-line method. Conservative Company therefore reports depreciation expense of $2.8 million (= 2 x 1/10 x $14,000,000), whereas High Flyer Company reports depreciation expense of $1.4 million (= 1/10 x $14,000,000) to shareholders. Both companies compute depreciation for tax purposes using a seven-year life, the double declining-balance depreciation method, and the initial half-year depreciation convention. Depreciation on both tax returns equals $2.0 million for the year.

Comparative Income Statements

Exhibit 1 presents comparative income statements for Conservative Company and High Flyer Company for the year ending December 31. For each company, the revenues and expenses (except for depreciation) reported in the financial statements equal those in the income tax return.

Conservative Company reports $800,000 (= $2,800,000 – $2,000,000) more depreciation in the financial statements than in the tax return. The $800,000 difference causes taxable income to exceed income before income taxes for financial reporting. Income tax expense of $3,335,500 equals the income tax rate of 35 percent times income before income taxes. Income taxes currently payable equal the income tax rate of 35 percent times taxable income. The difference between income tax expense of $3,335,500 and the income tax payable of $3,615,500 results in a deferred tax asset of $280,000 on the balance sheet. This account reports the future tax savings that Conservative Company will realize when it deducts the $800,000 additional depreciation for income tax purposes in later years.

High Flyer Company reports $600,000 (= $1,400,000 – $2,000,000) less depreciation in the financial statements than in the tax return. Income before income taxes exceeds taxable income; therefore, income tax expense exceeds income tax currently payable. The firm recognizes a deferred tax liability for the future taxes payable of $210,000 (= 0.35 x $600,000). Note in this illustration that High Flyer Company reports significantly larger net income and earnings per share than Conservative Company. Other management choices could magnify the difference. If both firms had issued stock options to employees as compensation in lieu of cash, with Conservative Company expensing faster than High Flyer, the Conservative Company would report lower income than High Flyer.

EXHIBIT 1 Comparative Income Statements Based on Different Accounting Principles for the Year Ending December 31 (all dollar amounts in thousands, except for per-share amounts)

	Conservative Company		High Flyer Company	
	Financial Statement	Tax Return	Financial Statement	Tax Return
Sales Revenue	$42,000.0	$42,000.0	$42,000.0	$42,000.0
Expenses:				
Cost of Goods Sold	$26,970.0	$26,970.0	$26,130.0	$26,130.0
Depreciation on Equipment	2,800.0	2,000.0	1,400.0	2,000.0
Other Selling, General, and Administrative	2,700.0	2,700.0	2,700.0	2,700.0
Expenses before Income Taxes	$32,470.0	$31,670.0	$30,230.0	$30,830.0
Net Income before Income Taxes	$ 9,530.0	$10,330.0	$11,770.0	$11,170.0
Income Tax Expense[a]	3,335.5		4,119.5	
Net Income	$ 6,194.5		$ 7,650.5	
Earnings per Share (2,000,000 shares outstanding)	$ 3.10		$ 3.83	
[a] Computation of Income Taxes:				
Credits to Income Taxes Currently Payable on Balance Sheet				
0.35 x $10,330.0	$3,615.5			
0.35 x $11,170.0			$3,909.5	
Credits (Debits) to Deferred Income Taxes on Balance Sheet				
Dr. = 0.35 x $800	(280.0)			
Cr. = 0.35 x $600			210.0	
Total Debit to Income Tax Expense on Income Statement	$3,335.5		$4,119.5	

Comparative Balance Sheets

Exhibit 2 presents comparative balance sheets for Conservative Company and High Flyer Company as of December 31. Merchandise inventory and equipment (net) as well as total assets of Conservative Company have lower valuations than those of High Flyer Company. Cash represents the only real difference between the economic positions of the two companies. The difference in the amount of cash results from the payment of different amounts of income taxes by the two firms. Note that Conservative Company's higher cash results from paying smaller amounts of income taxes. Some analysts, including us, believe that Conservative Company has a stronger financial position than does High Flyer Company.

The differences in the amounts for merchandise inventory and equipment (net) result from the different accounting methods used by the two companies. Conservative Company reports smaller amounts than High Flyer Company because Conservative Company recognizes a larger portion of the costs incurred during the period as an expense. Conservative Company also shows a Deferred Tax Asset of $280,000 arising from temporary differences in depreciation for financial and tax reporting, whereas High Flyer Company reports a Deferred Tax Liability relating to the same temporary differences.

EXHIBIT 2 Comparative Balance Sheets Based on Different Accounting Principles, December 31 (all dollar amounts in thousands)

	Conservative Company	High Flyer Company
ASSETS		
Cash	$ 6,314.5	$ 6,020.5
Merchandise Inventory	8,400.0	9,240.0
Equipment (at acquisition cost)	14,000.0	14,000.0
Less Accumulated Depreciation	(2,800.0)	(1,400.0)
Deferred Tax Asset	280.0	—
Total Assets	$26,194.5	$27,860.5
LIABILITIES AND SHAREHOLDERS' EQUITY		
Deferred Tax Liability	—	$ 210.0
Common Stock	$20,000.0	20,000.0
Retained Earnings	6,194.5	7,650.5
Total Liabilities and Shareholders' Equity	$26,194.5	$27,860.5

Note the effect that the use of alternative accounting principles has on the rate of return on total assets, a measure of a firm's operating profitability. Conservative Company reports a smaller amount of net income but also a smaller amount of total assets. One may expect the rate of return on total assets of the two firms to approximate each other more closely than either net income or total assets individually. One still observes significant differences in the ratios for the two firms in this illustration, however. The rate of return on total assets for Conservative Company is as follows:

$$26.8 \text{ percent} = \$6{,}194{,}500/[(\$20{,}000{,}000 + \$26{,}194{,}500)/2]$$

For High Flyer Company the rate is as follows:

$$32.0 \text{ percent} = \$7{,}650{,}500/[(\$20{,}000{,}000 + \$27{,}860{,}500)/2]$$

Note that neither firm uses debt financing, so there is no need to add back interest expense net of tax saving in the numerator of the rate of return on assets.

Comparative Statements of Cash Flows

Exhibit 3 presents comparative statements of cash flows for Conservative Company and High Flyer Company. The amount of cash flow from operations for Conservative Company exceeds that for High Flyer Company. The difference of $294.0 million (= $314.5 million – $20.5 million) results from the difference in the amount of income taxes paid. These companies paid different amounts of income taxes because they used different cost flow assumptions for inventories on their tax returns. The following schedule shows the cause of the difference in cash flow:

Conservative Company: LIFO Cost of Goods Sold	$26,970
High Flyer Company: FIFO Cost of Goods Sold	26,130
Difference in Cost of Goods Sold and Taxable Income	$ 840
Multiply by Tax Rate	x 35%
Difference in Cash Flow from Operations (= $6,314.5 – $6,020.5)	$ 294

Note that the use of different depreciation methods by these firms on their financial statements has no effect on the statement of cash flows. As long as both firms use the same depreciation method on their tax returns (double declining-balance method in this case), cash flows related to depreciation will not differ.

EXHIBIT 3 Comparative Statements of Cash Flows for the Year Ending December 31 (all dollar amounts in thousands)

	Conservative Company		High Flyer Company	
OPERATIONS				
Net Income	$ 6,194.5		$ 7,650.5	
Additions:				
Depreciation Expense	2,800.0		1,400.0	
Increase in Deferred Tax Liability	—		210.0	
Subtractions:				
Increase in Deferred Tax Asset	(280.0)			
Increase in Merchandise Inventory	(8,400.0)		(9,240.0)	
Cash Flow from Operations		$ 314.5		$ 20.5
INVESTING				
Acquisition of Equipment		(14,000.0)		(14,000.0)
FINANCING				
Issue of Common Stock		20,000.0		20,000.0
Net Change in Cash		$ 6,314.5		$ 6,020.5
Cash, January 1		—		—
Cash, December 31		$ 6,314.5		$ 6,020.5

Moral of the Illustration

Effective interpretation of published financial statements requires sensitivity to the particular accounting principles that firms select. Comparing the reports of several companies may necessitate adjusting the amounts for different accounting methods. Previous chapters illustrated the techniques for making some of these adjustments (for example, LIFO to FIFO

cost flow assumption). The notes to financial statements disclose the accounting methods used but not necessarily the data needed to make the appropriate adjustments.

Assessing the Effects of Alternative Accounting Principles on Investment Decisions

Previous sections of this chapter emphasized the flexibility that firms have in selecting and applying their accounting principles and the effects that the use of different accounting principles has on the financial statements. We now examine two related and important questions:

- Do investors accept financial statement information as presented, without noticing the differences in accounting methods that underlie the statements?
- Or, do they somehow filter out all or most of the financial statement variances that result from differences in the selection and application of accounting methods?

Suppose that investors accept financial statement information as presented, without adjustments for the methods of accounting used. Then, two firms that are otherwise identical except for their accounting principles might raise capital at different costs or raise unequal amounts of capital. Then, the use of alternative accounting principles leads to a misallocation of resources in the economy. The managers of a firm might have an incentive to select those accounting principles that place the firm and its managers in the most favorable light rather than to select those accounting principles that most accurately measure the economic effects of transactions and events.

Those who believe that alternative accounting principles can mislead investors make the following arguments.

1. Most investors do not understand accounting well enough to make adjustments for differences in accounting principles.
2. Financial statements and related notes do not provide sufficient information to permit the user to understand how firms applied the accounting methods selected, much less provide sufficient information to allow the user to adjust for alternative accounting principles.
3. The financial press frequently reports on firms whose market prices fall dramatically when reports about their misuse of specific accounting methods hit the market.

Those who believe that alternative accounting principles rarely mislead investors make the following arguments.

1. Capital market prices adjust quickly and appropriately to new information. Sophisticated security analysts, who dominate the pricing of securities through their buy and sell recommendations, have the necessary skills to make adjustments for alternative accounting principles.
2. The financial statement effects of differences in accounting principles can be sufficiently small that adjusting for them does not justify the effort. For example, the financial statement effects of using FIFO versus LIFO cost flow assumptions for inventories and cost of goods sold are small when prices do not change significantly and inventory turns over rapidly. Differences in depreciation methods do not cause serious financial statement distortions when acquisition costs remain relatively stable and firms do not grow rapidly.

Both of these positions have support in empirical evidence. Most of the evidence for the position that alternative accounting principles mislead investors relates to individual firms. Most of the evidence for the position that alternative accounting principles do not mislead investors relates to aggregate market effects. Thus, evidence that capital markets in general react appropriately to financial disclosures by firms does not preclude the possibility that the market may react inappropriately to the financial disclosures of particular firms for a particular period.

Quality of Earnings Revisited

Security analysts examine a firm's **quality of earnings** when using earnings information in valuing the firm. Assessments of a firm's quality of earnings involve examining the choices a firm makes in

1. selecting its accounting principles from among alternative GAAP,
2. applying the accounting principles selected, and
3. timing business transactions to temporarily increase or decrease earnings.

Throughout, the book emphasizes that net income over sufficiently long time periods equals cash inflows minus cash outflows other than transactions with owners. Firms, however, measure earnings for shorter, discrete time periods. Revenue recognition often precedes the receipt of cash from customers. Firms must therefore estimate at the time of sale the amount of uncollectible accounts and sales returns to measure earnings. Expense recognition often follows the cash outflows for goods and services acquired, sometimes by many years, as in the case of fixed assets. Expense recognition may also

precede cash outflows, as occurs with warranty services. The longer the time that elapses between revenue recognition and cash receipts and between expense recognition and cash expenditures, the more opportunity a firm has to bias its reported earnings and therefore lower its quality of earnings.

A concept related to quality of earnings is **quality of financial position**. The choices a firm makes in reporting revenues and expenses also affect assets and liabilities on the balance sheet. Analysts use balance sheet amounts in assessing a firm's profitability (for example, balance sheet amounts affect rates of return on assets and shareholders' equity and asset turnovers) and its risk (balance sheet amounts affect current, quick and debt ratios).

The next section reviews the impact of various financial reporting topics on assessments of the quality of earnings and the quality of financial position. Although we examine each reporting topic separately, assessments of quality must consider the net effect of all areas in which firms make reporting choices.

Revenue Recognition and Receivables Most firms recognize revenues at the time of sale, or delivery, of goods and services. Firms that collect cash from customers at the time of sale (for example, fast-food restaurants, movie theaters) have a higher quality of earnings, at least with respect to revenues, than firms that must estimate the amount of uncollectible accounts. Firms that sell to many customers, have historical data on the collectibility of receivables, and collect cash within one to three months after the sale (for example, department stores with their own credit cards) generally have higher-quality earnings than firms that sell to just a few customers, have limited historical data on collectibility, and permit customers to stretch out payments over many months or even years (for example, sellers of restaurant franchises, sellers of undeveloped residential real estate). Firms that provide customers with liberal rights to return products (for examples, sellers of products by mail or over the Internet) or that sell products requiring additional services before customer acceptance (for example, new computer software) must estimate the likely amount of returns and other after-market costs in order to measure earnings, thereby affecting earnings quality. Each of these choices that affect the measurement of revenue simultaneously affects the measurement of accounts receivable on the balance sheet.

Firms that recognize revenue on multi-period contracts as work progresses, such as construction companies, must estimate the degree of completion and the expected amount of total revenues and total expenses in order to measure earnings each period. The need to make such estimates before completion of the construction work affects the quality of earnings and the valuation of Contracts in Process on the balance sheet.

Cost of Goods Sold and Inventories Most firms choose either a FIFO, LIFO, or weighted-average cost flow assumption for inventories and cost of goods sold. LIFO generally matches more current cost with revenues than does FIFO and leads to higher-quality, sustainable earnings. Firms that dip into LIFO layers, however, match some older acquisition costs with revenues and negatively influence the quality of earnings. Whether a firm dips into LIFO layers is partially at the discretion of management. During periods of rising acquisition costs, dipping into LIFO layers can increase net income. LIFO provides, for inventories, balance sheet amounts that may reflect acquisitions costs of many years ago, when the firm created the LIFO layers. FIFO provides balance sheet amounts more closely reflecting current costs and therefore results in higher-quality measures of financial position. Thus, accounting methods that increase earnings quality may provide lower-quality measures of financial position.

Depreciation and Fixed Assets Firms with a high proportion of depreciable assets, such as manufacturing firms, have a lower quality of earnings, at least with respect to the measurement of depreciation expense, than firms with lower proportions of fixed assets, such as service and retail firms. Firms with depreciable assets must estimate the length of the period during which depreciable assets will provide services and the residual value at the end of that period. Such firms must also choose a depreciation method. These choices provide firms with opportunities to manage earnings in their favor.

Firms can measure depreciation using the straight-line method or an accelerated method. Because analysts often suspect that firms overstate rather than understate earnings, they view accelerated depreciation as providing higher-quality earnings. The vast majority of U.S. firms use the straight-line depreciation method. The depreciation method choice is therefore not an important source of difference in earnings quality between U.S. firms. Firms in countries such as Germany, France, and Japan frequently use accelerated depreciation methods for financial reporting. Thus, the depreciation method choice does affect assessments of earnings quality in cross-national comparisons.

Most countries require acquisition cost valuations for fixed assets. The longer the time period a firm holds fixed assets, the more out-of-date these acquisition cost valuations become. When the fair values of fixed assets decline below their book values, GAAP require firms to recognize an impairment loss. Thus, the book values after recognizing the impairment loss will equal the fair values of the assets and provide high-quality measures of financial position. When the fair values of fixed assets increase above book values, GAAP in most countries do not permit firms to write up the assets. Thus, the reported amounts for fixed assets will understate the financial position of the firm. Measuring the fair value of fixed assets, particularly those uniquely suited to a particular firm's needs, is not a precise process. Thus, opportunities to manage earnings exist in both the timing and measurement of impairment losses.

Amortization and Intangible Assets Firms that acquire intangibles in external market transactions must capitalize their costs as assets and subsequently amortize those with limited lives. Firms that develop intangibles internally must generally expense their costs in the year incurred. The immediate expensing leads to more conservative measures of earnings and, in the view of most analysts, a higher quality of earnings. Immediate expensing also eliminates the need to estimate the expected life and to choose an amortization method, actions required of firms acquiring intangibles in external market

transactions. Firms that develop intangibles internally, however, have discretion regarding when they expend resources and therefore can manage earnings in their favor in a particular year by delaying or accelerating expenditures.

Corporate Acquisitions The purchase method of accounting for a corporate acquisition reports assets and liabilities of an acquired company at the acquirer's acquisition cost, which equals the market value at the time of the acquisition. Firms using the purchase method must allocate this aggregate purchase price among each of the assets and liabilities acquired and then subsequently amortize those with limited lives. The initial allocation and subsequent amortization present firms with opportunities to manage balance sheet and earnings amounts. Thus, the analyst must consider the possible impact of the purchase method on quality assessments.

Warranties Firms that promise to provide future warranty services on products sold must estimate the expected costs of warranty claims and recognize that amount as an expense in the year it sells the products. When the warranty period is short, such as one year, and the firm has historical data on warranty claim costs for similar products, opportunities to manage earnings and measures of the warranty liability are more limited than when the warranty period extends for many years and historical data on similar products are lacking.

The earnings and balance sheet amounts for insurance companies present quality issues similar to warranties. Insurance companies recognize revenues each period from insurance premiums and investments. They must recognize an expense for the expected costs of claims arising from insurance in force during each period. The claim period may be relatively short, as in the case of damage to automobile and buildings, or much longer, as in the case of liability or life insurance coverage. Insurance companies encounter difficulties estimating the timing and amount of claims, particularly from events that do not occur in predictable patterns (such as hurricanes) and events for which insurance companies do not have historical data.

Leases Lessees usually prefer the operating lease method because it permits them to keep the lease liability off the balance sheet. The operating lease method provides lower-quality measures of financial position than the capital lease method because the lease obligation is, in economic substance, similar to reported liabilities. The operating lease method also keeps the leased asset off the books and understates the resources under the control and responsibility of management.

Employee Stock Options The market value method for stock options requires firms to make assumptions as to stock price volatility, dividend policy, discount rates, and other factors in valuing stock options. Firms must also make assumptions about the expected period of benefit. The need to make these assumptions provides management with opportunities to manage earnings.

Investments in Securities Firms might vary their ownership percentage in other companies to achieve a desired income statement or balance sheet result. Firms that invest in start-up companies may keep their ownership percentage below 20 percent to avoid having to accrue a share of the net losses expected during the early years. Firms investing in companies with high proportions of debt in their capital structures may keep the ownership percentage below 50 percent to avoid having to consolidate the debt into their balance sheet. Analysts must assess whether legitimate business reasons explain the ownership percentages or whether firms are gaming GAAP to their advantage. Ownership percentages of 19.9 percent and 49.9 percent arouse suspicion.

Derivatives Firms purchase derivative contracts most often to hedge other items. If the derivatives are not hedges, then they are likely trading securities, which provide minimal opportunity for earnings management. For derivatives acquired as hedges, the firm must generally designate them as either fair value hedges or cash flow hedges. In both cases the derivative and the item hedged appear at market value on the balance sheet. Unrealized holding gains and losses on fair value hedges flow through to net income each period, whereas unrealized holding gains and losses on cash flows hedges flow initially to other comprehensive income and only when settled do they affect net income. Firms have some latitude in designating particular hedges as fair value versus cash flow hedges and can thereby manage earnings accordingly.

Timing of Transactions and Events Perhaps the aspect of earnings quality most difficult for the analyst to assess is the impact of the discretionary timing of transactions and events. A firm may reduce expenditures for maintenance in a particular year, for example, stating that facilities were in less need of repair than in prior years. The analyst must assess whether the firm can sustain the increased earnings in future years. Firms may increase the depreciable lives of buildings and equipment, explaining that they were too conservative in their original estimates. Analysts must assess whether the longer lives seem reasonable, given the depreciable lives used by other firms in the industry, or whether a firm may have changed the depreciable lives to boost current earnings. Firms may experience decreased earnings in a particular year because of a weak economy. Because capital markets expect lower earnings, firms might take advantage of that expectation by writing down or writing off assets, a phenomenon frequently referred to as the *big bath*. Firms managing earnings in this fashion will recognize losses from asset impairments in an otherwise weak earnings year. Firms hope that investors will view the charge as nonrecurring and will ignore or deemphasize it. By writing down or writing off assets, the firm will report larger earnings in future periods—by recognizing a loss now, the need to recognize expense later disappears. Firms hope that investors will forget that part of the reason for increased earnings is the earlier write-down of assets that would otherwise now be part of expenses.

Summary of Earnings Quality Assessing the quality of earnings and the quality of financial position is among the most important and yet the most difficult tasks of the analyst. This assessment requires the analyst to ask:

1. Does the firm have valid business reasons for the choices it makes, or does enhancing reported earnings or financial position appear to be the chief aim?
2. Which areas of choice have the largest impact on a particular firm's income statement and balance sheet? A firm's choice of accounting principles may appear conservative, for example choosing LIFO or accelerated depreciation in measuring cost of goods sold and depreciation expense. Yet if the firm is not growing rapidly and acquisition costs are not changing significantly, these choices have relatively little impact on earnings. Delaying maintenance, advertising, or research and development expenses might have a much larger effect and should be the focus of the analyst's energies.
3. Do the firm's choices enhance the quality of earnings at the expense of the quality of financial position, or vice versa? Firms using LIFO or accelerated depreciation may enhance their quality of earnings but may provide, for inventories and fixed assets, balance sheet amounts that significantly understate their current values.
4. Does the firm disclose sufficient information to permit the analyst to restate reported amounts, or must the analyst inject an intolerable level of subjectivity in order to improve the quality of earnings or balance sheet information?

The Firm's Selection of Alternative Accounting Principles

We next address the following questions:

1. Which accounting principles from among those prescribed as generally accepted should a firm choose in preparing its financial statements (that is, how should a firm move from **Circle B** to **Circle C** in **Figure 1**)?
2. Which accounting principles should it select for income tax purposes?

Financial Reporting Purposes

A firm's reporting strategy or objective might guide its selection of accounting principles for financial reporting. This section considers four possible strategies or objectives: (1) accurate presentation, (2) conservatism, (3) profit maximization, and (4) income smoothing.

Accurate Presentation One might judge the usefulness of accounting information by assessing whether it provides an **accurate presentation** of the underlying events and transactions. A firm could base its selection of accounting principles on accuracy of presentation. For example, previous chapters define assets as resources having future service potential and define expenses as the cost of services consumed during the period. In applying the accuracy basis, firms would select the inventory cost flow assumption and the depreciation method that most accurately measure the pattern of services consumed during the period and the amount of services still available at the end of the period.

This approach has at least one serious limitation as a basis for selecting accounting methods. The accountant can seldom directly observe the services consumed and the service potential remaining. Without this information, the accountant cannot ascertain which accounting principles lead to the most accurate presentation of the underlying events. Accuracy of presentation serves primarily as a normative guide for firms to use in selecting their accounting principles.

Conservatism In choosing among alternative generally acceptable methods, firms might select the set that provides the most conservative measure of net income and assets. Considering the uncertainties involved in measuring benefits received as revenues and services consumed as expenses, some accountants suggest providing a conservative measure of earnings, thereby reducing the possibility of unwarranted optimism by financial statement users. As a criterion for selecting accounting principles, **conservatism** implies selecting methods that minimize asset totals and cumulative reported earnings. That is, firms should recognize expenses as quickly as possible and postpone the recognition of revenues as long as possible. This reporting objective generally leads to selecting the double declining-balance or the sum-of-the-years'-digits depreciation method and the LIFO cost flow assumption if a firm anticipates periods of rising prices.

Many accountants and financial statement users challenge the rationale for conservatism as a reporting objective. Over the life of the firm, income equals cash receipts minus cash expenditures other than transactions with owners. Thus, to the extent that conservatism reduces net income of earlier periods, it increases earnings of later periods. The "later" periods of larger income may, however, be many periods later, sometimes even the last period of the firm's existence. Also, earnings reports based on conservative reporting principles may mislead some statement users. Consider, for example, investors who sell shares because they believe that a firm does not operate in a sufficiently profitable manner with the resources available, whereas less conservatively reported earnings would not have induced them to sell. Or consider the potential lenders who will not provide financing because the published conservative statement of earnings misleads them.

Profit Maximization **Profit maximization**, a reporting objective having an effect just the opposite of that of conservatism, suggests selecting accounting methods that maximize asset totals and cumulative reported earnings. That is, a firm should recognize revenues as quickly as possible and postpone the recognition of expenses as long as possible. For

example, a firm would use the straight-line method of depreciation and the FIFO cost flow assumption when it anticipates periods of rising prices. Using profit maximization as a reporting objective extends the notion that a firm attempts to generate profits and that it should present as favorable a report on performance as possible within currently acceptable accounting methods. Some firms' managers, whose compensation depends in part on reported earnings, prefer larger reported earnings to smaller. Compared with other accounting principles, profit-maximizing principles result in reporting income earlier, which means reporting smaller income in some later period. Note that profit maximization as a financial reporting objective differs from the profit maximization dictum of microeconomics, because in reporting we merely choose the time periods in which to report profits, whereas in economics we try to increase the size of total profits over time by increasing net cash inflows.

Income Smoothing **Income smoothing** guides some firms' choices of accounting principles. This criterion suggests selecting accounting methods that result in the smoothest earnings trend over time. Empirical research has shown a relation between changes in stock prices and changes in earnings. Advocates of income smoothing suggest that if a firm minimizes fluctuations in earnings, it will reduce the perceived risk of investing in its shares of stock and, all else being equal, obtain a higher stock price. It will be able to raise capital at a lower cost. Note that this reporting criterion suggests smoothing net income, not revenues and expenses individually. As a result, a firm must consider the total pattern of its operations before selecting the appropriate accounting methods. For example, straight-line depreciation provides the smoothest amount of depreciation expense on a machine over its life. If, however, the productivity of the machine declines with age so that revenues decrease in later years, the straight-line method may not provide the smoothest net income stream.

Summary We summarize this discussion of the strategies that firms consider in selecting their accounting principles for financial reporting by presenting a series of questions for you to ponder:

1. Do business firms have a moral obligation to select the accounting principle that most accurately measures the economic effects of a transaction or event (if such a principle exists), or do firms satisfy any moral obligation by selecting their accounting principles from the set of principles deemed acceptable by standard-setting bodies?
2. Should firms, in selecting their accounting principles, pursue a particular reporting strategy to take advantage of market inefficiencies that may exist in the pricing of their debt or equity securities?
3. Should firms select the same accounting principles as their principal competitors, to provide apparently more comparable financial statements? If so, should they apply these accounting principles differently than do their competitors, to achieve particular reporting objectives? For example, a firm might choose the straight-line depreciation for its plant assets, the same method used by its competitors, but use longer depreciable lives than competitors to appear more profitable.
4. Should firms disclose only the minimum information required by GAAP, requiring the analyst to estimate the impact of other accounting alternatives, or should firms adopt a policy of more complete disclosure to aid the analyst in making adjustments?

Income Tax Reporting Purposes

For income tax purposes, firms should select accounting procedures that minimize the present value of the stream of income tax payments. This guide, sometimes called the **least and latest rule**, suggests that a firm pay the least amount of taxes as late as possible within the law. The least and latest rule generally translates into a policy of recognizing expenses as quickly as possible and postponing the recognition of revenues as long as possible. Expected changes in income tax rates or the availability of operating loss carryforwards to offset taxable income of the current year might alter the strategy in implementing the least and latest rule.

Recognizing expenses as soon as possible suggests adopting the LIFO inventory cost flow assumption, accelerated depreciation, and immediate expensing of research and development, advertising, and similar costs. Using the installment basis of recognizing revenue, where permitted by the Internal Revenue Code and Regulations, will benefit a firm because it postpones revenue recognition and the resulting income tax payments until a firm collects cash.

Summary

This reading summarizes the accounting principles discussed in **Chapters 6** through **12** and serves (along with **Problem 1 for Self-Study** in this reading) as a review of the more technical aspects of alternative accounting principles and their implications for earnings quality. This reading also revisits questions, raised in **Chapter 1**, regarding the standard-setting process and the desired degree of uniformity versus flexibility in accounting principles. These latter issues remain open to debate as researchers continue to study the effects of alternative accounting principles.

Problem 1 for Self-Study

Review of Chapters 1–12. A set of financial statements for Kaplan Corporation follows, including a consolidated income statement (**Exhibit 4**), a comparative consolidated balance sheet on December 31, Year 1 and Year 2 (**Exhibit 5**), and a consolidated statement of cash flows (**Exhibit 6**). A series of notes provides additional information on certain items in the financial statements.

Compute the results required on page 18, using information from the financial statements and notes. We suggest that you study the statements and notes carefully before attempting to respond to the questions.

Note 1: Kaplan Corporation selected the accounting policies in the following list:

- *Basis of consolidation.* Kaplan Corporation consolidates its financial statements with those of Heimann Corporation, an 80-percent-owned subsidiary acquired on January 2, Year 1.
- *Marketable securities.* Marketable securities appear at market value.
- *Accounts Receivable.* Kaplan Corporation uses the allowance method for uncollectible accounts.
- *Inventories.* Kaplan Corporation uses a last-in, first-out (LIFO) cost flow assumption for inventories and cost of goods sold.
- *Investments.* Kaplan Corporation uses the market value method for investments of less than 20 percent of the outstanding common stock of other companies and the equity method for investments of 20 to 50 percent of the outstanding common stock of unconsolidated affiliates.
- *Buildings and equipment.* Kaplan Corporation uses the straight-line method of depreciation for financial reporting and uses accelerated depreciation for tax reporting.
- *Patent.* The corporation amortizes patents over a period of 10 years.
- *Interest on long-term debt.* The calculation of interest expense on bonds payable uses the effective interest method.
- *Deferred income taxes.* The corporation provides deferred income taxes for temporary differences between book income and taxable income.

Note 2: Marketable securities available for sale appear at market values that are less than their acquisition cost by $50,000 on December 31, Year 1, and by $70,000 on December 31, Year 2.

Note 3: Accounts receivable appear net of an allowance for uncollectible accounts of $200,000 on December 31, Year 1, and $250,000 on December 31, Year 2. Selling and administrative expenses include bad debt expense of $120,000.

Note 4: Inventories comprise the following:

	December 31, Year 1	December 31, Year 2
Raw Materials	$ 330,000	$ 380,000
Work-in-Process	460,000	530,000
Finished Goods	1,800,000	2,200,000
Total	$2,590,000	$3,110,000

EXHIBIT 4 KAPLAN CORPORATION Consolidated Income Statement for Year 2 (all dollar amounts in thousands) (Problem for Self-Study)

Revenues and Gains	
Sales	$12,000
Equity in Earnings of Unconsolidated Affiliates	300
Dividend Revenue	20
Gain on Sale of Marketable Securities	30
Total Revenues and Gains	$12,350
Expenses and Losses	
Cost of Goods Sold	$ 7,200
Selling and Administrative	2,709
Loss on Sale of Equipment	80
Interest (Notes 7 and 8)	561
Total Expenses and Losses	$10,550
Net Income before Income Taxes	$ 1,800
Income Tax Expense	540
Net Income	$ 1,260

EXHIBIT 5 KAPLAN CORPORATION Consolidated Balance Sheets December 31, Year 1 and Year 2 (all dollar amounts in thousands) (Problem for Self-Study)

	December 31, Year 1	December 31, Year 2
ASSETS		
Current Assets		
Cash	$ 1,470	$ 2,919
Marketable Securities Available for Sale (Note 2)	450	550
Accounts Receivable (net; Note 3)	2,300	2,850
Inventories (Note 4)	2,590	3,110
Prepayments	800	970
Total Current Assets	$ 7,610	$10,399
Investments (Note 5)		
Investment in Maher Corporation (10 percent)	$ 200	$ 185
Investment in Johnson Corporation (30 percent)	310	410
Investment in Burton Corporation (40 percent)	800	930
Total Investments	$ 1,310	$ 1,525
Property, Plant, and Equipment		
Land	$400	$500
Buildings	800	940
Equipment	3,300	3,800
Total Cost	$ 4,500	$ 5,240
Less Accumulated Depreciation	(1,200)	(930)
Net Property, Plant, and Equipment	$ 3,300	$ 4,310
Patent (Note 6)	$ 90	$ 80
Total Assets	$12,310	$16,314
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current Liabilities		
Note Payable (Note 7)	$ —	$ 2,000
Accounts Payable	1,070	1,425
Salaries Payable	800	600
Interest Payable	300	400
Income Taxes Payable	250	375
Total Current Liabilities	$ 2,420	$ 4,800
Long-term Liabilities		
Bonds Payable (Note 8)	$ 6,209	$ 6,209
Deferred Tax Liability	820	940
Total Long-term Liabilities	$ 7,029	$ 7,149
Shareholders' Equity		
Common Shares ($10 par value)	$ 500	$ 600
Additional Paid-in Capital	800	1,205
Accumulated Other Comprehensive Income:		
Unrealized Holding Loss on Marketable Securities Available for Sale	(50)	(70)
Unrealized Holding Loss on Investments in Securities	(25)	(40)
Retained Earnings	1,666	2,690
Total	$ 2,891	$ 4,385
Less Treasury Shares (at cost)	(30)	(20)
Total Shareholders' Equity	$ 2,861	$ 4,365
Total Liabilities and Shareholders' Equity	$12,310	$16,314

EXHIBIT 6 KAPLAN CORPORATION Consolidated Statement of Cash Flows for Year 2 (all dollar amounts in thousands) (Problem for Self-Study)

Operations		
Net Income	$ 1,260	
Additions:		
Depreciation	560	
Deferred Taxes	120	
Loss on Sale of Equipment	80	
Excess of Interest Expense over Coupon Payments	28	
Amortization of Patent	10	
Increase in Accounts Payable	355	
Increase in Interest Payable	100	
Increase in Income Taxes Payable	125	
Subtractions:		
Gain on Sale of Marketable Securities	(30)	
Equity in Earnings of Affiliates in Excess of Dividends Received	(180)	
Amortization of Premium on Bonds	(28)	
Increase in Accounts Receivable	(550)	
Increase in Inventories	(520)	
Increase in Prepayments	(170)	
Decrease in Salaries Payable	(200)	
Cash Flow from Operations		$960
INVESTING		
Sale of Marketable Securities	$ 210	
Sale of Equipment	150	
Investment in Johnson Corporation	(50)	
Purchase of Marketable Securities	(300)	
Acquisition of:		
Land	(100)	
Building	(300)	
Equipment	(1,400)	
Cash Flow from Investing		(1,790)
FINANCING		
Increase in Notes Payable	$ 2,000	
Common Stock Issued	500	
Treasury Stock Sold	15	
Dividends	(236)	
Cash Flow from Financing		2,279
Net Change in Cash		$ 1,449
Cash, January 1		1,470
Cash, December 31		$ 2,919

The current cost of inventories exceeded the amounts computed on a LIFO basis by $420,000 on December 31, Year 1, and $730,000 on December 31, Year 2.

Note 5: Burton Corporation had a net income of $400,000 and paid dividends of $75,000 in Year 2.

Note 6: On January 2, Year 1, Kaplan Corporation acquired 80 percent of the outstanding common shares of Heimann Corporation by issuing 20,000 shares of Kaplan Corporation common stock. The Kaplan Corporation shares had a market value on January 2, Year 1, of $40 per share. The book values of the recorded assets and liabilities of Heimann Corporation equal their market values. Kaplan Corporation attributes any difference between the acquisition price and the book value of the recorded net assets to a patent that Heimann Corporation developed internally by its research and development efforts. Kaplan Corporation amortizes the patent over a period of 10 years from the date of acquisition.

Note 7: Current liabilities include a one-year note payable due on January 2, Year 3. The note requires annual interest payments on December 31 of each year.

Note 8: Bonds payable are as follows:

	December 31, Year 1	December 31, Year 2
4 Percent, $2,000,000 Bonds Due Dec. 31, Year 7, with Interest Payable Semiannually	$1,800,920	$1,829,390
10 Percent, $3,000,000 Bonds Due Dec. 31, Year 11, with Interest Payable Semiannually	3,407,720	3,379,790
8 Percent, $1,000,000 Bonds Due Dec. 31, Year 17, with Interest Payable Semiannually	1,000,000	1,000,000
Total	$6,208,640	$6,209,180

REQUIRED

a. Kaplan Corporation sold marketable securities originally costing $180,000 during Year 2. Ascertain the price at which it sold these securities.

b. Refer to part **a**. Compute the cost of marketable securities purchased during Year 2.

c. What was the amount of specific customers' accounts that Kaplan Corporation wrote off as uncollectible during Year 2?

d. Compute the amount of cash collected from customers during the year.

e. Compute the cost of units completed and transferred to the finished goods inventory during Year 2.

f. Direct labor and overhead costs incurred in manufacturing during the year totaled $4,500,000. Compute the cost of raw materials purchased during Year 2.

g. Assume that the amounts disclosed in **Note 4** for the current cost of inventories represent the amounts that would result from using a first-in, first-out (FIFO) cost flow assumption. Compute the cost of goods sold if the firm had used FIFO rather than LIFO.

h. Prepare an analysis that explains the causes of the changes in each of the three intercorporate investment accounts.

i. Prepare an analysis that explains the change in each of the four following accounts during Year 2: Land; Building; Equipment; and Accumulated Depreciation.

j. Give the journal entry made on Kaplan Corporation's books on January 2, Year 1, when it acquired Heimann Corporation.

k. Compute the book value of the net assets acquired of Heimann Corporation on January 2, Year 1.

l. Kaplan Corporation initially priced the 4 percent bonds payable to yield 6 percent compounded semiannually. The firm initially priced the 10 percent bonds to yield 8 percent compounded semiannually. Use the appropriate present value tables at the back of the book to show that $1,800,920 and $3,407,720 (see **Note 8**) are the correct book values for these two bond issues on December 31, Year 1.

m. Calculate the amount of interest expense and any change in the book value of the bond liability for Year 2 on each of the three long-term bond issues (see **Note 8**).

n. Compute the amount of income taxes actually paid during Year 2.

o. On July 1, Year 2, Kaplan Corporation issued 10,000 shares of its common stock on the open market for $50 per share. Prepare an analysis explaining the change during Year 2 in each of the following accounts: Common Shares; Additional Paid-in Capital; Retained Earnings; and Treasury Shares.

Solution to Self-Study Problem

SUGGESTED SOLUTION TO PROBLEM 1 FOR SELF-STUDY

(Kaplan Corporation; review of Chapters 1–12.)

a.

Cost of Marketable Securities Sold	$180,000
Gain on Sale (from Income Statement)	30,000
Selling Price	$210,000

The statement of cash flows shows the $210,000 cash proceeds from the sale as an investing activity. The accountant must subtract the gain on sale of marketable securities from net income in the operations section to avoid overstating the amount of cash inflow from the transaction.

b.

Marketable Securities Available for Sale at Market Value on December 31, Year 1.	$450,000
Plus Cost of Marketable Securities Purchased	?
Less Cost of Marketable Securities Sold	(180,000)
Less Increase in Unrealized Holding Loss	(20,000)
Marketable Securities Available for Sale at Market Value on December 31, Year 2.	$550,000

The cost of marketable securities available for sale purchased during Year 2 was $300,000. The statement of cash flows reports these purchases as an investing activity. The recognition of an unrealized holding loss of $20,000 from price declines of marketable securities did not reduce net income or use cash. Thus, the accountant need not make an adjustment to net income when computing cash flow from operations.

c.

Allowance for Uncollectible Accounts, December 31, Year 1	$200,000
Plus Provision for Uncollectible Accounts during Year 2	120,000
Less Specific Customers' Accounts Written Off as Uncollectible during Year 2	?
Allowance for Uncollectible Accounts, December 31, Year 2	$250,000

Specific customers' accounts written off as uncollectible during Year 2 totaled $70,000.

d.

Gross Accounts Receivable, December 31, Year 1[a]	$ 2,500,000
Plus Sales during the Year.	12,000,000
Less Gross Accounts Receivable, December 31, Year 2[b]	(3,100,000)
Accounts Collected or Written Off	$11,400,000
Less Write-Offs	(70,000)
Cash Collected during the Year	$11,330,000

[a] $2,300,000 + $200,000.
[b] $2,850,000 + $250,000.

Kaplan Corporation generated $11,330,000 cash from credit customers during Year 2. Net income includes $11,880,000 from credit sales (= sales revenue of $12,000,000 – bad debt expense of $120,000). The accountant subtracts the $550,000 difference (= $11,880,000 – $11,330,000) from net income when computing cash flow from operations. This $550,000 amount equals the increase in accounts receivable (net) during Year 2 (= $2,850,000 – $2,300,000).

e.

Finished Goods Inventory, December 31, Year 1	$1,800,000
Plus Cost of Units Completed during the Year	?
Less Cost of Units Sold during the Year	(7,200,000)
Finished Goods Inventory, December 31, Year 2	$2,200,000

The cost of units completed was $7,600,000.

f.

Work-in-Process Inventory, December 31, Year 1	$ 460,000
Plus Cost of Raw Materials Used	?
Plus Direct Labor and Manufacturing Overhead Costs Incurred	4,500,000
Less Cost of Units Completed	(7,600,000)
Work-in-Process Inventory, December 31, Year 2	$ 530,000

The cost of raw materials used during Year 2 was $3,170,000.

Raw Materials Inventory, December 31, Year 1	$ 330,000
Plus Cost of Raw Materials Purchased	?
Less Cost of Raw Materials Used	(3,170,000)
Raw Materials Inventory, December 31, Year 2	$ 380,000

The cost of raw materials purchased was $3,220,000.

g.

	LIFO	Difference	FIFO
Inventory, December 31, Year 1	$ 2,590,000	$ 420,000	$ 3,010,000
Purchases plus Costs Incurred	7,720,000	—	7,720,000
Goods Available	$10,310,000	$ 420,000	$10,730,000
Less Inventory, December 31, Year 2	3,110,000	730,000	3,840,000
Cost of Goods Sold	$ 7,200,000	$(310,000)	$ 6,890,000

Cost of goods sold under FIFO would have been $6,890,000. Note that cost of goods sold under LIFO of $7,200,000 is less than the cost of purchases plus costs incurred of $7,720,000. The accountant subtracts the difference of $520,000 (= $7,720,000 – $7,200,000), which equals the increase in inventories during Year 2 (= $3,110,000 – $2,590,000), when converting net income to cash flow from operations. To compute cash flow from operations, the accountant also adds to net income the increase in accounts payable of $355,000 because Kaplan Corporation did not make cash expenditures for the full amount of the increase in inventories.

h.

Investment in Maher Corporation (market value method)	
Balance, December 31, Year 1	$200,000
Plus Additional Investments	0
Less Sale of Investments	0
Less Increase in Unrealized Holding Loss on Investments in Securities	15,000
Balance, December 31, Year 2	$185,000
Investment in Johnson Corporation (equity method)	
Balance, December 31, Year 1	$310,000
Plus Additional Investments	50,000
Plus Equity in Earnings (total equity in earnings of $300,000 from income statement minus equity in Earnings of Burton Corporation of $160,000)	140,000
Less Sale of Investments	0
Less Dividend Received (plug)	(90,000)
Balance, December 31, Year 2	$410,000
Investment in Burton Corporation (equity method)	
Balance, December 31, Year 1	$800,000
Plus Additional Investments	0
Plus Equity in Earnings (0.40 x $400,000)	160,000
Less Sale of Investments	0
Less Dividends Received (0.40 x $75,000)	(30,000)
Balance, December 31, Year 2	$930,000

Kaplan Corporation recognized a total of $300,000 (= $140,000 + $160,000) equity in earnings, yet received dividends of $120,000 (= $90,000 + $30,000). The statement of cash flows shows a subtraction from net income of $180,000 (=$300,000 – $120,000) for the excess of revenues over dividends from investments when computing cash flow from operations. The statement of cash flows reports the additional investment in Johnson Corporation as an investing activity.

i.

Land	
Balance, December 31, Year 1	$ 400,000
Plus Acquisitions	100,000
Less Disposals	0
Balance, December 31, Year 2	$ 500,000
Building	
Balance, December 31, Year 1	$ 800,000
Plus Acquisitions	300,000
Less Retirements (plug)	(160,000)
Balance, December 31, Year 2	$ 940,000
Equipment	
Balance, December 31, Year 1	$3,300,000
Plus Acquisitions	1,400,000
Less Disposals (plug)	(900,000)
Balance, December 31, Year 2	$3,800,000

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Accumulated Depreciation	
Balance, December 31, Year 1	$1,200,000
Plus Depreciation for Year 2	560,000
Less Accumulated Depreciation on Building Retired (plug)	(160,000)
Less Accumulated Depreciation on Equipment Sold (see below)	(670,000)
Balance, December 31, Year 2	$ 930,000
Selling Price of Equipment Sold	$ 150,000
Loss on Sale of Equipment	80,000
Book Value of Equipment Sold	$ 230,000
Cost of Equipment Sold (from above)	$ 900,000
Less Accumulated Depreciation on Equipment Sold (plug)	(670,000)
Book Value of Equipment Sold	$ 230,000

The statement of cash flows shows the acquisitions of land, building, and equipment as investing activities. The cash proceeds from the sale of equipment of $150,000 appear as an investing activity. The statement of cash flows shows an addback to net income of $80,000 for the loss on sale of equipment to avoid understating the amount of cash generated from the sale. Depreciation expense for Year 2 of $560,000 appears as an addback to net income because this expense does not use cash.

j.

Investment in Heimann Corporation (Asset Increase)	800,000	
Common Stock (20,000 x $10) (Shareholders' Equity Increase)		200,000
Additional Paid-in Capital (20,000 x $30) (Shareholders' Equity Increase)		600,000

k.

Cost of Investment in Heimann Corporation	$800,000
Patent, $80,000 + (2 x $10,000)	(100,000)
Book Value of Net Assets Acquired	$700,000

l.

4 Percent Bond Issue	
$40,000 x 9.9540 (Table 4, 12, 3%)	$ 398,160
$2,000,000 x 0.70138 (Table 2, 12, 3%)	1,402,760
Total	$1,800,920
10 Percent Bond Issue	
$150,000 x 13.59033 (Table 4, 20, 4%)	$2,038,550
$3,000,000 x 0.45639 (Table 2, 20, 4%)	1,369,170
Total	$3,407,720

m.

	Liability, Beginning of the Period	Market Interest Rate	Interest Expense	Amount Payable	Addition to (or Reduction in) Liability	Liability, End of the Period
4 Percent Bond Issue						
January 1, Year 2	$1,800,920	0.03	$ 54,028	$ 40,000	$ 14,028	$1,814,948
July 1, Year 2	1,814,948	0.03	54,448	40,000	14,448	1,829,396
Total			$108,476	$ 80,000	$ 28,476	
10 Percent Bond Issue						
January 1, Year 2	$3,407,720	0.04	$136,309	$150,000	$(13,691)	$3,394,029
July 1, Year 2	3,394,029	0.04	135,761	150,000	(14,239)	3,379,790
Total			$272,070	$300,000	$(27,930)	
8 Percent Bond Issue						
January 1, Year 2	$1,000,000	0.04	$ 40,000	$ 40,000	$ 0	$1,000,000
July 1, Year 2	1,000,000	0.04	40,000	40,000	0	1,000,000
Total			$ 80,000	$ 80,000	$ 0	

Interest expense on the 4 percent bonds of $108,476 exceeds the amount payable of $80,000. The statement of cash flows shows an addback to net income for the difference, the amortization of discount on these bonds. Interest expense on the 10 percent bonds of $272,070 is less than the amount payable of $300,000. The statement of cash flows shows a subtraction from net income for the difference, the amortization of premium on these bonds. The statement of cash flows also shows an addition to net income for the increase in interest payable of $100,000, indicating that cash expenditures for interest were less than the amounts accrued as payable for Year 2.

n.

Income Taxes Payable, December 31, Year 1	$250,000
Plus Current Income Tax Expense for Year 2 (see below)	420,000
Less Cash Payment during Year 2	?
Income Taxes Payable, December 31, Year 2	$375,000
Total Income Tax Expense	$540,000
Less Increase in Deferred Income Taxes	(120,000)
Current Income Tax Expense	$420,000

Cash payments for income taxes totaled $295,000 during Year 2. The statement of cash flows should show an addback to net income of $120,000 for the portion of income tax expense that does not require a current expenditure (that is, the increase in the Deferred Tax Liability account). The statement of cash flows also shows an addition to net income for the increase in income taxes payable of $125,000, indicating that cash expenditures for income taxes were less than the amount accrued as payable for Year 2.

o.

	Common Shares				
	Number of Shares	Amount	Additional Paid-in Capital	Retained Earnings	Treasury Shares
Balance, December 31, Year 1	50,000	$500,000	$ 800,000	$1,666,000	$30,000
Common Stock Issued on the Open Market	10,000	100,000	400,000	—	—
Treasury Stock Sold	—	—	5,000	—	(10,000)
Net Income	—	—	—	1,260,000	—
Dividends (plug)[a]	—	—	—	(236,000)	—
Balance, December 31, Year 2	60,000	$600,000	$1,205,000	$2,690,000	$20,000

[a] Or, see statement of cash flows.

The $500,000 proceeds from issuing common stock appears as a financing activity on the statement of cash flows. The $15,000 cash proceeds from reissuing treasury stock (= $10,000 + $5,000) also appears as a financing activity. Note that the excess of the $15,000 reissue price over the $10,000 cost of the treasury stock increases additional paid-in capital, not net income.

Key Terms and Concepts

Generally accepted accounting principles (GAAP)
Securities and Exchange Commission (SEC)
Financial Accounting Standards Board (FASB)
Conceptual framework
International Accounting Standards Board (IASB)
Quality of earnings
Quality of financial position
Accurate presentation
Conservatism
Profit maximization
Income smoothing
Least and latest rule

Questions, Exercises, Problems, and Cases

QUESTIONS

1. Review the terms and concepts listed above in **Key Terms and Concepts**.
2. Reconcile the following two positions:
(1) "Standard-setting bodies need a conceptual framework to guide their selection of alternative accounting principles if the principles are to have a sound foundation and exhibit consistency over time."
(2) "Standard-setting bodies must continually interact with various preparers and users of financial statements to be sure that alternative accounting principles are generally acceptable."
3. A critic of accounting stated: "The financial statements are virtually useless because firms have too much latitude in selecting from among generally accepted accounting methods." Another critic of accounting reacted: "I agree that the financial statements are useless, but it is because firms have too little latitude in the way they account for certain transactions under generally accepted accounting principles." Respond to these statements.
4. "The controversy over alternative generally accepted accounting principles disappears if we require all firms to use the same methods of accounting in both their financial statements and their tax return." Respond to this proposal.
5. If net income over sufficiently long time periods equals cash inflows minus cash outflows other than transactions with owners, why not allow the timing of cash flows to dictate the timing of revenue and expense recognition and eliminate alternative GAAP?
6. "The total reported net income over sufficiently long time periods is the same regardless of whether a firm follows a conservative strategy or a profit-maximizing strategy in selecting its accounting methods." Explain.
7. "The direction of the cumulative effect of two alternative accounting principles on earnings may differ from the direction of the current year's effect." Explain.
8. "Alternative accounting principles have less of an effect on the statement of cash flows than on the balance sheet and income statement." Explain.
9. If capital markets react quickly and in an unbiased manner to the release of information, including information contained in the financial statements, what is the benefit of analyzing a set of financial statements?

EXERCISES

10. Identifying generally accepted accounting principles. Indicate the generally accepted accounting principle or method described in each of the following statements. Explain your reasoning.
a. This inventory cost flow assumption results in reporting the largest net income during periods of rising acquisition costs.
b. This method of accounting for uncollectible accounts recognizes the implied income reduction in the period of sale.
c. This method of accounting for long-term investments in the securities of other corporations usually requires an adjustment to net income to calculate cash flow from operations in the statement of cash flows.
d. This method of accounting for long-term leases by the lessee gives rise to a noncurrent liability.
e. This inventory cost flow assumption results in approximately the same balance sheet amount as is produced under the FIFO flow assumption.
f. This method of recognizing interest expense on bonds provides a uniform annual rate of interest expense over the life of the bond.
g. During periods of rising acquisition costs, this inventory valuation basis produces approximately the same results as does the acquisition cost valuation basis.
h. When a firm deems specific customers' accounts uncollectible and writes them off, this method of accounting results in a decrease in the current ratio.
i. This method of depreciation generally provides the largest amounts of depreciation expense during the first several years of an asset's life.
j. This method of accounting for intercorporate investments in securities can result in a decrease in the investor's total shareholders' equity without affecting the Retained Earnings account.
k. This method of recognizing income from long-term contracts generally results in the least amount of fluctuation in earnings over several periods.
l. When a firm identifies specific customers' accounts as uncollectible and writes them off, this method of accounting results in no change in working capital (equals current assets minus current liabilities).
m. When a firm uses this inventory cost flow assumption in calculating taxable income, it generally must use it in calculating net income reported to shareholders.
n. This method of accounting for long-term leases of equipment by the lessor shows on the income statement an amount for depreciation expense.
o. This inventory cost flow assumption results in inventory balance sheet amounts closest to current replacement cost.
p. This method of accounting for long-term investments in securities results in recognizing revenue for dividends received or receivable.
q. This method of depreciation generally results in the largest amounts for depreciable assets on the balance sheet during the first several years of an asset's life.
r. This inventory cost flow assumption results in reporting the smallest net income during periods of falling acquisition costs.

s. The method of accounting for long-term leases of equipment by the lessee results in showing an amount for rent expense on the income statement.

t. This inventory cost flow assumption results in inventory balance sheet amounts that may differ significantly from current replacement cost.

u. This method of accounting for long-term leases of equipment by the lessor results in showing revenue at the time of signing a lease.

v. This inventory cost flow assumption can result in substantial changes in the relation between cost of goods sold and sales if inventory quantities decrease during a period.

11. Identifying generally accepted accounting principles. Indicate the accounting principle or procedure apparently being used to record each of the following independent transactions. Also describe the transaction or event being recorded.

a.	Retained Earnings (Bad Debt Expense) (Shareholders' Equity Decrease)	X	
	Accounts Receivable (Asset Decrease)		X
b.	Cash (Asset Increase)	X	
	Retained Earnings (Dividend Revenue) (Shareholders' Equity Increase)		X
c.	Accumulated Other Comprehensive Income (Unrealized Holding Loss on Marketable Securities Available for Sale) (Shareholders' Equity Decrease)	X	
	Marketable Securities (Asset Decrease)		X
d.	Cash (Asset Increase)	X	
	Investment in Affiliated Company (Asset Decrease)		X
	Dividend declared and received from affiliated company.		
e.	Retained Earnings (Bad Debt Expense) (Shareholders' Equity Decrease)	X	
	Allowance for Uncollectible Accounts (Asset Decrease)		X
f.	Retained Earnings (Rent Expense for Lease) (Shareholders' Equity Decrease)	X	
	Cash (Asset Decrease)		X
g.	Investment in Affiliated Company (Asset Increase)	X	
	Retained Earnings (Equity in Earnings of Affiliated Company) (Shareholders' Equity Increase)		X
h.	Allowance for Uncollectible Accounts (Asset Increase)	X	
	Accounts Receivable (Asset Decrease)		X
i.	Retained Earnings (Loss from Price Decline of Inventories) (Shareholders' Equity Decrease)	X	
	Merchandise Inventories		X
j.	Liability under Long-term Lease (Liability Decrease)	X	
	Retained Earnings (Interest Expense) (Shareholders' Equity Decrease)	X	
	Cash (Asset Decrease)		X

12. Identifying effects of generally accepted accounting principles on reported income. Indicate the accounting principle that provides the smallest amount of cumulative earnings in each of the following cases:

a. The valuation of inventories at acquisition cost or lower of cost or market

b. FIFO, LIFO, or weighted-average cost flow assumption for inventories during periods of rising acquisition costs

c. FIFO, LIFO, or weighted-average cost flow assumption for inventories during periods of declining acquisition costs

d. Market value method or equity method of accounting for long-term investments in securities when the investee declares dividends less than its earnings

e. Market value method or equity method of accounting for long-term investments in the securities of unconsolidated subsidiaries when the investee realizes net losses and does not pay dividends

f. Sum-of-the-years'-digits or straight-line depreciation method during the first one-third of an asset's life

g. Sum-of-the-years'-digits or straight-line depreciation method during the last one-third of an asset's life

h. The operating lease method or the capital lease method for the lessee during the first several years of the life of a lease

i. The operating lease method or the capital lease method for the lessor during the last several years of the life of a lease

PROBLEMS AND CASES

13. Impact of capitalizing and amortizing versus expensing when incurred. West Company, a U.S. company, and East Company, a Japanese company, incur $100 million of research and development (R&D) costs each year. West Company must expense these costs immediately, whereas East Company capitalizes the costs and amortizes them over five years.

a. For each of the first six years, compute the amount of R&D expense that each firm would report on the income statement and the amount of deferred R&D costs that each firm would report on the balance sheet.

b. For this part, assume that the amount of R&D costs incurred by each firm increases by $20,000 million each year. Repeat part **a**.

c. Comment on the differences noted in parts **a** and **b**.

14. Impact of alternative accounting principles on two firms. On January 1, Year 1, two corporations establish merchandising businesses. The firms are alike in all respects except for their methods of accounting. Humble Company chooses the accounting principles that minimize its reported net income. Huff Company chooses the accounting principles that maximize its reported net income but, where permitted, uses accounting methods that minimize its taxable income. The following events occur during Year 1.

(1) Both firms issue 500,000 shares of $1-par value common shares for $8 per share on January 1, Year 1.

(2) Both firms acquire equipment on January 2, Year 1, for $2,750,000 cash. The firms estimate the equipment to have a 10-year life and zero salvage value.

(3) Both firms engage in extensive sales promotion activities during Year 1, incurring costs of $375,000.

(4) The two firms make the following purchases of merchandise inventory, on account.

Date	Units Purchased	Unit Price	Cost of Purchase
January 2	30,000	$8.00	$ 240,000
April 1	80,000	8.10	648,000
August 15	20,000	8.25	165,000
November 30	70,000	8.40	588,000
Total	200,000		$1,641,000

On December 31, Year 1, purchases of inventory on account totaling $310,000 remain unpaid.

(5) During the year, both firms sell 150,000 units at an average price of $18 each.

(6) Selling, general, and administrative expenses, other than advertising, total $150,000 during the year.

Humble Company uses the following accounting methods (for both book and tax purposes): LIFO inventory cost flow assumption, accelerated depreciation, and immediate expensing of the costs of sales promotion. It uses the sum-of-the-years'-digits depreciation method for financial reporting and the allowable accelerated depreciation method for tax purposes. For tax purposes, depreciation on this equipment is $293,700 for Year 1.

Huff Company uses the following accounting methods: FIFO inventory cost flow assumption for both book and tax purposes, the straight-line depreciation method for book and the allowable accelerated depreciation method for tax purposes, and capitalization and amortization of the costs of the sales promotion campaign over four years for book and immediate expensing for tax purposes.

a. Prepare comparative income statements for the two firms for Year 1. Include separate computations of income tax expense. The income tax rate is 30 percent.

b. Prepare comparative balance sheets for the two firms as of December 31, Year 1. Both firms have $1,300,000 of outstanding accounts receivable on this date. Each firm has a current liability for unpaid income taxes equal to one-fifth of the taxes payable on the current year's taxable income.

c. Prepare comparative statements of cash flows for the two firms for Year 1, defining funds as cash.

d. Prepare an analysis that explains the difference in the cash of Humble Company and that of Huff Company on December 31, Year 1.

15. Impact of two sets of alternative accounting principles on net income and cash flows. Brown Corporation commences operations on January 2, Year 1, with the issuance at par of 100,000 shares of $10-par value common stock for cash. During Year 1, the following transactions occur.

(1) Brown Corporation acquires the assets of Joan's Department Store on January 2, Year 1, for $600,000 cash. The market values of Joan's identifiable assets are as follows: accounts receivable, $150,000; merchandise inventory, $300,000 (150,000 units); store equipment, $112,500; and goodwill, $37,500.

(2) During the year, the firm sells 157,500 units at an average price of $3.20.

(3) The firm offers extensive training programs during the year to acquaint previous employees of Joan's Department Store with the merchandising policies and procedures of Brown Corporation. The costs incurred in the training programs total $37,500.

(4) Selling, general, and administrative costs incurred and recognized as an expense during Year 1 are $60,000.

(5) Brown Corporation purchases, on account, merchandise inventory during Year 1 as follows:

Date	Units Purchased	Unit Price	Cost of Purchase
April 1	22,500	$2.10	$ 47,250
August 1	15,000	2.20	33,000
October 1	37,500	2.40	90,000
Total	75,000		$170,250

On December 31, Year 1, Brown Corporation owes $30,200 for purchases on account.

(6) Brown Corporation estimates the store equipment to have a 10-year useful life and zero salvage value.

(7) The income tax rate is 30 percent.

The management of Brown Corporation is uncertain about the accounting methods that it should use in preparing its financial statements. It narrows the choice to two sets of accounting methods and asks you to calculate net income for Year 1 using each set.

Set A consists of the following accounting methods (for book and tax purposes): LIFO inventory cost flow assumption, accelerated depreciation, and immediate expensing of the costs of the training program. Set A computes depreciation using the double declining-balance method for book purposes (10-year useful life and zero estimated salvage value). Accelerated depreciation for tax purposes is $16,073.

Set B consists of the following accounting methods: FIFO inventory cost flow assumption, straight-line depreciation for book purposes (10-year life and zero estimated salvage value), and capitalization and amortization of the costs of the training program over five years for book and immediate expensing for tax purposes. Accelerated depreciation for tax purposes is $16,073.

a. Calculate the net income for Year 1 under each set of accounting methods.

b. Calculate cash flow from operations under each set of accounting methods. Assume that accounts receivable total $120,000 and accounts payable total $30,200 at year-end. Also assume that one-fourth of the income taxes payable on the current year's taxable income remains unpaid at year-end.

c. Prepare an analysis that explains the difference in cash flow from operations under **Set A** and **Set B**.

16. Comprehensive review problem. Exhibits 7 and **8** present a partial set of financial statements of Chicago Corporation for Year 2, including a consolidated statement of income and retained earnings for Year 2 and consolidated comparative balance sheets at December 31, Year 1 and Year 2. A series of questions relating to the financial statements of Chicago Corporation follows these financial statements. You should study the financial statements before responding to these questions and problems. Additional information is as follows:

EXHIBIT 7 CHICAGO CORPORATION
Consolidated Statement of Income and Retained Earnings for Year 2 (Problem 16)

Revenues		
Sales		$13,920,000
Gain on Sale of Machinery and Equipment		200,000
Equity in Earnings of Affiliates:		
Chicago Finance Corporation	$1,800,000	
Rosenwald Company	125,000	
Hutchinson Company	75,000	2,000,000
Total Revenues		$16,120,000
Expenses		
Cost of Goods Sold		$ 5,000,000
Employee Payroll		3,000,000
Depreciation of Plant and Equipment and Amortization of Leased Property Rights		1,000,000
Amortization of Patent		125,000
Bad Debt Expense		120,000
Interest		455,000
General Corporate		420,000
Income Taxes—Current		1,430,000
Income Taxes—Deferred		170,000
Total Expenses		$11,720,000
Net Income		$ 4,400,000
Less: Dividends on Preferred Shares		(120,000)
Dividends on Common Shares		(2,080,000)

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Increase in Retained Earnings	$ 2,200,000	
Retained Earnings, January 1, Year 2	2,800,000	
Retained Earnings, December 31, Year 2	$ 5,000,000	
Basic Earnings per Common Share (based on 1,600,000 average shares outstanding)		$2.675
Fully Diluted Earnings per Share (assuming conversion of preferred stock)		$2.20

(1) During Year 2, Chicago Corporation sold, for cash, machinery and equipment costing $1,000,000 and with a book value of $200,000.

(2) The only transaction affecting common or preferred stocks during Year 2 was the sale of treasury stock.

(3) The bonds payable have a maturity value of $4 million.

a. Compute the amount of specific customers' accounts that Chicago Corporation wrote off as uncollectible during Year 2, assuming that it made no recoveries during Year 2 on accounts written off in years prior to Year 2.

b. Chicago Corporation uses the LIFO cost flow assumption in computing its cost of goods sold and its beginning and ending merchandise inventory amounts. If it had used a FIFO cost flow assumption, the beginning inventory would have been $1,800,000 and the ending inventory would have been $1,700,000. Compute the actual gross profit (net sales less cost of goods sold) of Chicago Corporation for Year 2 under LIFO and the corresponding amount of gross profit if FIFO had been used (ignore income tax effects).

c. Refer to part **b**. Did the quantity and acquisition costs of merchandise inventory increase or decrease between the beginning and the end of Year 2? Explain.

d. Chicago Corporation accounts for its three intercorporate investments in unconsolidated affiliates using the equity method. It acquired the shares in each of these companies at book value at the time of acquisition. How much did each of these three companies declare in dividends during Year 2? How can you tell?

e. Chicago Corporation accounts for its three intercorporate investments in unconsolidated affiliates using the equity method. It acquired the shares in each of these companies at book value at the time of acquisition. Give the journal entry (entries) made during Year 2 to apply the equity method.

f. Chicago Corporation acquired its only building on January 1, Year 1. It estimated the building to have a 40-year useful life and zero salvage value at that time. Calculate the amount of depreciation expense on this building for Year 2, assuming that the firm uses the double declining-balance method.

g. Chicago Corporation sold machinery and equipment costing $1,000,000, with a book value of $200,000, for cash during Year 2. Give the journal entry to record the disposition.

h. The bonds payable carry 6 percent annual coupons and require the payment of interest on December 31 of each year. Give the journal entry made on December 31, Year 2, to recognize interest expense for Year 2, assuming that Chicago Corporation uses the effective interest method.

i. Refer to part **h**. What was the effective or market interest rate on these bonds on the date they were issued? Explain.

j. The $170,000 deferred portion of income tax expense for Year 2 includes $150,000 relating to the use of different depreciation methods for financial and tax reporting. If the income tax rate was 30 percent, calculate the difference between the depreciation deduction reported on the tax return and the depreciation expense reported on the income statement.

k. Give the journal entry that explains the change in the treasury shares account assuming that no other transactions affected the common or preferred shares during Year 2.

l. If the original acquisition cost of the patent is $1,250,000, and the firm amortizes the patent on a straight-line basis, how long before December 31, Year 2, did the firm acquire the patent?

m. Chicago Corporation acquired the stock of Hutchinson Company on December 31, Year 1. If it held the same amount of stock during the year, but the amount represented only a 15 percent ownership of the Hutchinson Company, how would the financial statements have differed? Disregard income tax effects, and assume the market price of the shares exceeds their acquisition cost of $100,000 by $25,000 on December 31, Year 2.

n. During Year 2, Chicago Corporation paid $170,000 to the lessor of property represented on the balance sheet by "Property Rights Acquired under Lease." Property rights acquired under lease have a 10-year life, and Chicago Corporation amortizes them on a straight-line basis. What was the total expense reported by Chicago Corporation during Year 2 from using the leased property?

o. How would the financial statements differ if Chicago Corporation accounted for inventories on the lower-of-cost-or-market basis and if the market value of these inventories had been $1,600,000 at the end of Year 2? Disregard income tax effects.

p. Refer to the earnings-per-share amounts in the income statement of Chicago Corporation. How many shares of common stock would the firm issue if holders of the outstanding shares of preferred stock converted them into common stock?

q. The treasurer of Chicago Corporation recently remarked, "The value or worth of our company on December 31, Year 2, is $11,000,000, as measured by total shareholders' equity." Describe briefly at least three reasons why the difference between recorded total assets and recorded total liabilities on the balance sheet does not represent the firm's value or worth.

r. Some financial statement users criticize the accounting profession for permitting several GAAP for the same or similar transactions. What are the major arguments for (1) narrowing the range of acceptable methods or (2) continuing the present system of permitting business firms some degree of flexibility in selecting their accounting methods?

EXHIBIT 8 CHICAGO CORPORATION
Consolidated Balance Sheets, December 31 (Problem 16)

	Year 1	Year 2
ASSETS		
Current Assets		
Cash	$ 200,000	$ 100,000
Certificate of Deposit	—	225,000
Accounts Receivable (net of estimated uncollectibles of $100,000 in Year 1 and $160,000 in Year 2)	500,000	600,000
Merchandise Inventory	1,500,000	1,800,000
Prepayments	200,000	200,000
Total Current Assets	$ 2,400,000	$ 2,925,000
Investments (at equity)		
Chicago Finance Corporation (40 percent owned)	$ 2,200,000	$ 4,000,000
Rosenwald Company (50 percent owned)	900,000	1,025,000
Hutchinson Company (25 percent owned)	100,000	175,000
Total Investments	$ 3,200,000	$ 5,200,000
Property, Plant, and Equipment		
Land	$ 400,000	$ 500,000
Building	4,000,000	4,000,000
Machinery and Equipment	7,300,000	8,000,000
Property Rights Acquired under Lease	1,500,000	1,500,000
Total	$13,200,000	$14,000,000
Less Accumulated Depreciation and Amortization	(3,800,000)	(4,000,000)
Total Property, Plant, and Equipment	$ 9,400,000	$10,000,000
Intangibles (at net book value)		
Patent	$ 875,000	$ 750,000
Goodwill	1,125,000	1,125,000
Total Intangibles	$ 2,000,000	$ 1,875,000
Total Assets	$17,000,000	$20,000,000
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current Liabilities		
Accounts Payable	$ 400,000	$ 550,000
Advances from Customers	660,000	640,000
Salaries Payable	240,000	300,000
Income Taxes Payable	300,000	430,000
Rent Received in Advance	—	50,000
Other Current Liabilities	200,000	460,000
Total Current Liabilities	$ 1,800,000	$ 2,430,000
Long-term Debt		
Bonds Payable	$ 3,600,000	$ 3,648,000
Equipment Mortgage Indebtedness	1,300,000	332,000
Capitalized Lease Obligation	1,100,000	1,020,000
Total Long-term Debt	$ 6,000,000	$ 5,000,000
Deferred Tax Liability	$ 1,400,000	$ 1,570,000
Shareholders' Equity		
Convertible Preferred Stock	$ 2,000,000	$ 2,000,000
Common Stock	2,000,000	2,000,000
Additional Paid-in Capital	2,400,000	3,000,000
Retained Earnings	2,800,000	5,000,000
Total	$ 9,200,000	$12,000,000
Less Cost of Treasury Shares	(1,400,000)	(1,000,000)
Total Shareholders' Equity	$ 7,800,000	$11,000,000
Total Liabilities and Shareholders' Equity	$17,000,000	$20,000,000

17. Comprehensive review problem. Exhibit 9 presents a consolidated statement of income and retained earnings for Year 22, and **Exhibit 10** presents a consolidated balance sheet for Tuck Corporation as of December 31, Year 21 and Year 22. A statement of accounting policies and a set of notes to the financial statements appear below. After studying these financial statements and notes, respond to each of the following questions and calculation requirements.

a. Prepare an analysis that explains the change in the Marketable Equity Securities account during Year 22.
b. Calculate the proceeds from sales of marketable equity securities classified as current assets during Year 22.
c. Calculate the amount of the estimated uncollectible accounts provision made during Year 22.
d. Calculate the amount of cost of goods sold assuming Tuck Corporation used a FIFO cost flow assumption.
e. Give the journal entry(s) to account for the change in the Investment in Thayer Corporation account during Year 22.
f. Calculate the amount of income or loss from the Investment in Thayer Corporation during Year 22.
g. Give the journal entry(s) to account for the change in the Investment in Davis Corporation account during Year 22.
h. Refer to **Note 5**. Give the journal entry to record the sale of equipment during Year 22.
i. Refer to **Note 9**. Demonstrate that the $106,036 is the correct amount of the leasehold asset at the beginning of the lease term.
j. Calculate the amount of cash received during Year 22 for rental fees.
k. Calculate the actual cost of goods and services required to service customers' warranties during Year 22.
l. Refer to **Note 7**. Calculate the amount of interest expense on the $1 million, 6 percent bonds for Year 22.
m. Give the journal entry(s) for the change in the Mortgage Payable accounts during Year 22. Be sure to consider the current portion.
n. Verify that the book value of the combined current and noncurrent portions of the Capitalized Lease Obligation on December 31, Year 21, should be $62,064.
o. Prepare an analysis that explains the change in the book value of the combined current and noncurrent portions of the Capitalized Lease Obligation during Year 22.
p. Give the journal entry to record income tax expense for Year 22.
q. Compute the amount of cash payments for income taxes during Year 22.
r. The income tax rate is 30 percent. Assume that during Year 22, Tuck Corporation recognized $12,000 of deferred tax expense related to differences in depreciation methods. Calculate the difference between the amount of depreciation recognized for financial reporting purposes and the amount recognized for tax purposes.
s. Give the journal entry made on July 1, Year 22, upon conversion of the preferred stock.
t. Give the journal entry(s) to account for the change in the Treasury Stock account during Year 22.

EXHIBIT 9 TUCK CORPORATION
Consolidated Statement of Income and Retained Earnings for Year 22 (Problem 17)

Revenues and Gains		
Sales	$4,000,000	
Gain on Sale of Equipment	3,000	
Rental Revenue	240,000	
Dividend Revenue	8,000	
Equity in Earnings of Unconsolidated Affiliates	102,000	
Total Revenues and Gains		$4,353,000
Expenses, Losses, and Deductions		
Cost of Goods Sold (including depreciation and amortization)	$2,580,000	
Selling and Administration Expenses (including depreciation and amortization)	1,102,205	
Warranty Expense	46,800	
Interest Expense	165,995	
Loss on Sale of Marketable Equity Securities	8,000	
Income Tax Expense	150,000	
Total Expenses, Losses, and Deductions		4,053,000
Consolidated Net Income		$ 300,000
Less Dividends Declared		(119,500)
Increase in Retained Earnings for Year 22		$ 180,500
Retained Earnings, December 31, Year 21		277,000
Retained Earnings, December 31, Year 22		$ 457,500

EXHIBIT 10 TUCK CORPORATION
Consolidated Comparative Balance Sheet (Problem 17)

	December 31, Year 21	December 31, Year 22
ASSETS		
Current Assets		
Cash	$ 240,000	$ 278,000
Marketable Securities (Note 1)	125,000	141,000
Accounts Receivable—Net (Note 2)	1,431,200	1,509,600
Inventories (Note 3)	1,257,261	1,525,315
Prepayments	28,000	32,000
Total Current Assets	$3,081,461	$3,485,915
Investments (Note 4)		
Investment in Thayer Corporation (15 percent owned)	$ 92,000	$ 87,000
Investment in Hitchcock Corporation (30 percent owned)	120,000	135,000
Investment in Davis Corporation (40 percent owned)	215,000	298,000
Total Investments	$ 427,000	$ 520,000
Property, Plant, and Equipment (Note 5)		
Land	$ 82,000	$ 82,000
Building	843,000	843,000
Equipment	497,818	1,848,418
Leasehold	106,036	106,036
Total Plant Assets at Cost	$1,528,854	$2,879,454
Less Accumulated Depreciation and Amortization	(383,854)	(420,854)
Total Plant Assets—Net	$1,145,000	$2,458,600
Intangibles		
Goodwill—Net	$ 36,000	$ 36,000
Total Assets	$4,689,461	$6,500,515
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current Liabilities		
Note Payable (Note 6)	$ 100,000	$ 200,000
Accounts Payable	666,100	723,700
Rental Fees Received in Advance	46,000	58,000
Estimated Warranty Liability	75,200	78,600
Interest Payable on Notes	1,500	2,000
Dividends Payable	25,000	30,000
Income Taxes Payable—Current	140,000	160,000
Mortgage Payable—Current Portion	37,383	37,383
Capitalized Lease Obligation—Current Portion	10,000	10,000
Total Current Liabilities	$1,101,183	$1,299,683
Noncurrent Liabilities		
Bonds Payable (Note 7)	$1,104,650	$1,931,143
Mortgage Payable (Note 8)	262,564	243,560
Capitalized Lease Obligation (Note 9)	52,064	46,229
Deferred Tax Liability	130,000	145,000
Total Noncurrent Liabilities	$1,549,278	$2,365,932
Total Liabilities	$2,650,461	$3,665,615
Shareholders' Equity		
Convertible Preferred Stock, $100 par Value (Note 10)	$ 700,000	$ 200,000
Common Stock, $10 par Value (Note 11)	1,000,000	1,650,000
Additional Paid-in Capital—Common	130,000	583,600
Accumulated Other Comprehensive Income:		
Unrealized Holding Loss on Marketable Securities	(25,000)	(21,000)
Unrealized Holding Loss on Investments in Securities	(16,000)	(21,000)
Retained Earnings	277,000	457,500
Total	$2,066,000	$2,849,100
Less Cost of Treasury Stock (Note 12)	(27,000)	(14,200)
Total Shareholders' Equity	$2,039,000	$2,834,900
Total Liabilities and Shareholders' Equity	$4,689,461	$6,500,515

STATEMENT OF ACCOUNTING POLICIES

- *Basis of consolidation.* Tuck Corporation consolidates its financial statements with those of Harvard Corporation, a 100-percent-owned subsidiary acquired on January 2, Year 20.
- *Marketable equity securities.* The firm reports marketable securities at market value.
- *Accounts receivable.* The firm accounts for customers' uncollectible accounts using the allowance method.
- *Inventories.* Tuck Corporation uses a last-in, first-out (LIFO) cost flow assumption for inventories.
- *Investments.* The firm accounts for investments of less than 20 percent of the outstanding common stock of other companies using the market value method. It accounts for investments of 20 to 50 percent of the outstanding common stock of affiliates using the equity method.
- *Building, equipment, and leaseholds.* Tuck Corporation calculates depreciation for financial reporting purposes using the straight-line method and for income tax reporting using MACRS depreciation.
- *Goodwill.* The firm does not amortize goodwill in accordance with FASB *Statement of Financial Accounting Standards No. 142.*
- *Interest expense on long-term debt.* The firm measures interest expense on long-term debt using the effective interest method.
- *Deferred income taxes.* Tuck Corporation provides deferred income taxes for temporary differences between book and taxable income.

NOTES TO THE FINANCIAL STATEMENTS

Note 1: The balance sheet presents marketable equity securities at market value, which is less than acquisition cost by $25,000 on December 31, Year 21, and $21,000 on December 31, Year 22. Tuck Corporation sold marketable equity securities costing $35,000 during Year 22. It received no dividends from marketable equity securities during Year 22.

Note 2: The balance sheet presents accounts receivable net of an allowance for uncollectible accounts of $128,800 on December 31, Year 21, and $210,400 on December 31, Year 22. Tuck Corporation wrote off a total of $63,000 of accounts receivable as uncollectible during Year 22.

Note 3: The valuation of inventories on a FIFO basis exceeded the amounts on a LIFO basis by $430,000 on December 31, Year 21, and by $410,000 on December 31, Year 22.

Note 4: Davis Corporation reported net income for Year 22 of $217,500 and declared and paid dividends totaling $60,000 during the year. Tuck Corporation invested an additional $20,000 in Davis Corporation during Year 22, but its ownership percentage remained at 40 percent.

Note 5: Tuck Corporation sold equipment with a cost of $23,000 and a book value of $4,000 during Year 22. This was the only disposition of property, plant, or equipment during the year.

Note 6: Tuck Corporation paid at maturity a 90-day, 9 percent note with a face amount of $100,000 with interest on January 30, Year 22. On December 1, Year 22, Tuck Corporation borrowed $200,000 from its local bank, promising to repay the principal plus interest at 12 percent in six months.

Note 7: Bonds Payable on the balance sheet comprises the following:

	December 31, Year 21	December 31, Year 22
$1,000,000, 6 Percent, 20-Year Semiannual Coupon Bonds, Due Dec. 31, Year 36, Priced at $1,125,510 to Yield 5 Percent, Compounded Semiannually, at the Time of Issue	$1,104,650	$1,099,823
$1,000,000, 8 Percent, 20-Year Semiannual Coupon Bonds, Due Dec. 31, Year 41, Priced at $828,409 to Yield 10 Percent, Compounded Semiannually, at the Time of Issue	0	831,320
Total	$1,104,650	$1,931,143

Note 8: Mortgage Payable represents a building mortgage requiring equal installment payments of $40,000 on December 31 of each year. The loan underlying the mortgage bears interest of 7 percent, compounded annually. The final installment payment is due on December 31, Year 32.

Note 9: The Capitalized Lease Obligation represents a 20-year, noncancelable lease on certain equipment. The lease requires annual payments, in advance, of $10,000 on January 2 of each year. The last lease payment will be made on January 2, Year 29. Tuck Corporation capitalizes the lease at the lessee's borrowing rate (at the inception of the lease) of 8 percent.

Note 10: Each share of preferred stock is convertible into five shares of common stock. On July 1, Year 22, holders of 5,000 shares of preferred stock exercised their options. Tuck Corporation recorded the conversion using book values.

Note 11: On October 1, Year 22, Tuck Corporation issued 40,000 shares of common stock on the open market for $15 per share.

Note 12: Treasury Stock comprises the following:

Dec. 31, Year 21: 2,250 Shares at $12 per Share	$27,000
Dec. 31, Year 22: 450 Shares at $12 per Share	$ 5,400
550 Shares at $16 per Share	8,800
	$14,200

During Year 22, Tuck Corporation sold 1,800 shares of treasury stock and acquired 550 shares.

18. Selecting accounting methods. Champion Clothiers, Inc., owns and operates 80 New England retailing establishments that specialize in quality men's and women's clothing. James Champion established the company many years ago, and members of the Champion family have run the company ever since. Currently, Ronald Champion, grandson of the founder, is president and chief executive officer. Members of the Champion family hold all of the company's shares.

The setting for this case is March 2005. Ronald Champion and the company's accountant, Tom Morrissey, engage in the following conversation.

Champion (president): "Tom, you said on the telephone that the financial statements for 2004 are now complete. How much did we earn in 2004?"

Morrissey (accountant): "Net income was $800,000, with earnings per share at $1.60. With the $1.20 per share earned in 2002 and $1.38 earned in 2003, we have maintained our 15 percent growth rate in profits."

Champion: "That's great! Tom, at our board meeting next week I am going to announce that the Champion family will take the company public. We will be issuing shares equal to a 40 percent stake in the company early in 2006. It is important that our earnings for 2005 continue to reflect the growth rate we have been experiencing. By my calculations, we need an earnings per share for 2005 in the neighborhood of $1.84. Does this seem likely?"

Morrissey: "I'm afraid not. Our current projections indicate an earnings per share around $1.65 for this year. Major unexpected style changes earlier this year left us with obsolete inventory that will have to be written off. In addition, increased competition in several of our major markets is putting a squeeze on margins."

Champion: "I know you accountants have all kinds of games you can play to doctor up the numbers. There must be something we can do to increase earnings to the desired level. What about our use of LIFO for inventories?"

Morrissey: "We have used LIFO in the past because it reduces income and saves taxes during a period of rising prices. The more recent, higher acquisition costs of inventory items enter into the computation of cost of goods sold in the income statement. The older, lower acquisition prices form the basis for the valuation of inventory on the balance sheet. We could switch to FIFO for 2005. That would add about $0.21 to earnings per share. However, we would probably have to use FIFO for tax purposes as well, increasing our taxes for the year by about $50,000."

Champion: "I don't like paying more taxes, but FIFO certainly more closely approximates the physical flow of our goods. If we decide to stay on LIFO, is there anything we can do in applying the LIFO method to prop up earnings?"

Morrissey: "We now classify our inventory very broadly into two LIFO groups, or pools: one for men's clothing and one for women's clothing. We do this to minimize the possibility of dipping into an old LIFO layer. As you will recall, if we sell more than we purchase during a given period, we dip into an old LIFO layer. These LIFO layers use acquisition costs of the year the layer was added as the basis for their valuation. Some of these layers reflect costs of the mid-1950s. When we dip into one of these layers, we have to use these old, lower costs in figuring cost of goods sold and net income. By defining our LIFO pools broadly to include our dollar investment in men's clothing and our dollar investment in women's clothing, we minimize the probability of liquidating an old LIFO layer. We could define our LIFO pools more narrowly to increase the possibility of dipping. We could then let the inventory of particular items run down at the end of the year, dip into the LIFO layer to increase earnings, and then rebuild the inventory early in the next year. I suspect we could add about $0.02 a share to 2005 earnings if we used narrower pools."

Champion: "We own all of our store buildings and display counters. Is there anything we can do with depreciation expense?"

Morrissey: "We now depreciate these items using the shortest lives allowed and the fastest write-off permitted by tax law. However, whereas we have to use LIFO for financial reporting if we use it for tax reporting, we do not have to calculate depreciation for financial reporting in the same way as we do for tax reporting. We could depreciate these items over the expected economic life of each asset, which would be longer than the tax life. That should add about $0.04 to earnings per share for 2005. We could also use the straight-line depreciation method for financial reporting. Although our depreciable assets probably decrease in value faster than the straight-line method indicates, we would be using the depreciation method that most of our competitors use for financial reporting. The use of straight-line depreciation would add another $0.08."

Champion: "Now you're talking. What else can we do?"

Morrissey: "Well, there is one thing we can do very easily with our pension plan to improve earnings. When we adopted the pension plan two years ago, we gave all employees credit for their service prior to adoption. This created an immediate obligation for past service. We are amortizing this obligation as a charge against earnings over a 10-year period. GAAP permit us to use 15 years instead of 10 years as the amortization period; that switch would increase earnings per share by $0.05 for 2005."

Champion: "All of the things you have suggested deal with the selection or application of accounting methods. Can we do anything with the timing of expenditures to help 2005 earnings?"

Morrissey: "Well, we could postpone painting and other maintenance of our stores scheduled for the last quarter of this year until the first quarter of next year. That would add $0.02 to earnings per share. In addition, we anticipate running a major advertising campaign just after Christmas. Although the advertising expenditure will be in 2005 and will reduce earnings per share by $0.03, we will realize all of the benefits of the campaign by way of greater sales early in 2006."

Champion: "I hadn't realized how much flexibility we had for managing our earnings. Before we decide which choices to make, can you think of any other avenues open to us?"

Morrissey: "We could always sell off assets on which we have potential gain. For example, we hold some marketable securities available for sale that we purchased last year. Selling those securities would net us an additional $0.02 in earnings per share. In addition, we own two parcels of land that we hope to use someday for new stores. We could sell these parcels at a gain of $0.04 per share."

Champion: "It strikes me that these alternatives could increase earnings per share for 2005 to the $2.00-plus range. This level is a lot more appealing than the $1.65 per share anticipated for the year. Will we have to do anything to earnings per share for prior years if we adopt any of these alternatives?"

Morrissey: "I have set out in **Exhibit 11** the impact of each of the choices on earnings per share for 2005, as well as any restatement required for prior years. This summary should help us decide on our strategy."

EXHIBIT 11 CHAMPION CLOTHIERS, INC.
Alternative Strategies for Managing Earnings per Share (Problem 18)

	Impact on Earnings Per Share			
Alternative	**2002[a]**	**2003[b]**	**2004[a]**	**2005[b]**
Actual (2002–2004) or Anticipated (2005)	$1.20	$1.38	$1.60	$1.65
Adoption of FIFO	+0.15	+0.17	+0.20	+0.21
Use of Narrower LIFO Pools	+0.02	+0.03	+0.02	+0.02
Use of Longer Depreciation Lives	—	—	—	+0.04
Adoption of Straight-Line Depreciation	+0.05	+0.06	+0.07	+0.08
Amortization of Pension Obligation over 15 Years	—	—	—	+0.05
Deferral of Maintenance	—	—	—	+0.02
Deferral of Advertising	—	—	—	+0.03
Sale of Marketable Securities	—	—	—	+0.02
Sale of Land	—	—	—	+0.04

[a] Restated as required by GAAP.
[b] Projected.

How much do you think Champion Clothiers should report as earnings per share for 2005? Indicate the avenues you would choose (from among those described by Tom Morrissey) to arrive at your recommended earnings per share amount, and state the justification for your choices.

19. Identifying quality-of-earnings issues. Petite-Marts, Inc., maintains a chain of U.S. retail clothing stores offering stylish women's clothes in petite sizes. The company offers its own credit card and charges no interest on unpaid balances of three months or less. **Exhibit 12** presents balance sheets for January 31, Year 5, to January 31, Year 8. **Exhibit 13** presents income statements, and **Exhibit 14** presents statements of cash flows for the three fiscal years ending January 31, Year 6 to Year 8. Excerpts from the notes to the financial statements appear below.

Note 1: The company recognizes revenue at the time of sale to customers. Accounts receivable are net of an allowance for uncollectible accounts and sales returns of $1,438 million on January 31, Year 5, $1,785 million on January 31, Year 6, $2,010 million on January 31, Year 7, and $1,759 million on January 31, Year 8. Selling and administrative expenses include a provision for uncollectible accounts and sales returns of $994 million for fiscal Year 6, $1,010 million for fiscal Year 7, and $703 million for fiscal Year 8.

Note 2: The company uses a last-in, first-out (LIFO) cost flow assumption for inventories and cost of goods sold. The inventories on a first-in, first-out cost flow assumption would have exceeded their LIFO amounts as follows: January 31, Year 5, $2,448 million; January 31, Year 6, $2,969 million; January 31, Year 7, $3,572 million; January 31, Year 8, $2,247 million. During fiscal Year 8 the company dipped into LIFO layers created in earlier years, increasing income before income taxes by $916 million.

Note 3: The company uses the straight-line depreciation method. It depreciates buildings over 20 years and, until fiscal Year 8, depreciated equipment over 5 years. A review of equipment usage early in fiscal Year 8 suggested that a longer depreciable life was appropriate. The company therefore revised the depreciable lives of equipment from 5 years to 8

years beginning with the Year 8 fiscal year. The change decreased depreciation expense for fiscal Year 8 by $1,583 million. During fiscal Year 7, new federal health and safety regulations led to the need to recognize a building impairment loss totaling $2,498 million. The company commenced construction of a new home office building during fiscal Year 8. It incurred total costs of $1,987 million, including $147 million of capitalized interest.

Note 4: The company expenses advertising costs in the year the advertisement appears. Advertising expense was $1,987 million in fiscal Year 6, $2,179 million in fiscal Year 7, and $1,859 million in fiscal Year 8.

Note 5: The company is subject to an income tax rate of 34 percent.

a. Identify quality-of-earnings issues in the income statements for fiscal Year 6, Year 7, and Year 8.

b. Recompute net income for each of the three years as you think appropriate in light of the quality-of-earnings issues discussed in part **a**.

c. Discuss the changes in profitability of Petite-Marts, Inc., during the three-year period.

EXHIBIT 12 PETITE-MARTS, INC.
Comparative Balance Sheets (dollar amounts in millions) (Problem 19)

	January 31:			
	Year 5	Year 6	Year 7	Year 8
ASSETS				
Cash	$ 929	$ 994	$ 1,064	$ 1,005
Accounts Receivable (net)	8,000	8,560	9,159	8,782
Inventories	8,160	8,731	8,927	8,202
Prepayments	420	447	1,328	1,301
Total Current Assets	$17,509	$18,732	$20,478	$19,290
Land	$ 345	$ 345	$ 345	$ 225
Buildings	17,960	17,960	15,462	15,462
Equipment	9,493	13,880	19,429	22,805
Construction in Progress	0	0	0	1,987
Less Accumulated Depreciation	(8,287)	(11,522)	(15,689)	(19,101)
Property, Plant, and Equipment (net)	$19,511	$20,663	$19,547	$21,378
Total Assets	$37,020	$39,395	$40,025	$40,668
LIABILITIES AND SHAREHOLDERS' EQUITY				
Accounts Payable	$ 4,149	$ 4,439	$ 4,775	$ 3,609
Notes Payable to Banks	2,550	2,739	2,931	2,810
Other Current Liabilities	4,229	4,526	4,841	4,575
Total Current Liabilities	$10,928	$11,704	$12,547	$10,994
Long-term Debt	12,000	12,000	12,000	12,000
Total Liabilities	$22,928	$23,704	$24,547	$22,994
Common Stock	$ 2,000	$ 2,000	$ 2,000	$ 2,000
Additional Paid-in Capital	6,250	6,250	6,250	6,250
Retained Earnings	5,842	7,441	7,228	9,424
Total Shareholders' Equity	$14,092	$15,691	$15,478	$17,674
Total Liabilities and Shareholders' Equity	$37,020	$39,395	$40,025	$40,668

EXHIBIT 13 PETITE-MARTS, INC.
Comparative Income Statements (dollar amounts in millions) (Problem 19)

For the Fiscal Year Ended:	Year 6	Year 7	Year 8
Sales	$49,680	$53,158	$50,234
Cost of Goods Sold	(33,782)	(36,200)	(34,260)
Depreciation Expense	(3,235)	(4,167)	(3,412)
Selling and Administrative Expenses	(7,453)	(7,814)	(7,285)
Asset Impairment Charge	0	(2,498)	0
Operating Income	$ 5,210	$ 2,479	$ 5,277
Gain on Sale of Land	0	0	708
Interest Expense	(1,172)	(1,187)	(1,042)
Income before Income Taxes	$ 4,038	$ 1,292	$ 4,943
Income Tax Expense	(1,373)	(439)	(1,681)
Net Income	$ 2,665	$ 853	$ 3,262

EXHIBIT 14 PETITE-MARTS, INC.
Comparative Statements of Cash Flows (dollar amounts in millions) (Problem 19)

For the Fiscal Year Ended:	Year 6	Year 7	Year 8
OPERATIONS			
Net Income	$ 2,665	$ 853	$ 3,262
Depreciation Expense	3,235	4,167	3,412
Asset Impairment Charge	0	2,498	0
Gain on Sale of Land	0	0	(708)
(Increase) Decrease in Accounts Receivable	(560)	(599)	377
(Increase) Decrease in Inventories	(571)	(196)	725
(Increase) Decrease in Prepayments	(27)	(881)	27
Increase (Decrease) in Accounts Payable	290	336	(1,166)
Increase (Decrease) in Other Current Liabilities	297	315	(266)
Cash Flow from Operations	$ 5,329	$ 6,493	$ 5,663
INVESTING			
Sale of Land	$ 0	$ 0	$ 828
Acquisition of Equipment	(4,387)	(5,549)	(3,376)
Self-Construction Costs Incurred	0	0	(1,987)
Cash Flow for Investing	$(4,387)	$(5,549)	$(4,535)
FINANCING			
Increase (Decrease) in Notes Payable to Bank	$ 189	$ 192	$ (121)
Dividends Paid	(1,066)	(1,066)	(1,066)
Cash Flow from Financing	$ (877)	$ (874)	$(1,187)
Change in Cash	$ 65	$ 70	$ (59)
Cash, Beginning of Year	929	994	1,064
Cash, End of Year	$ 994	$ 1,064	$ 1,005