

Financial Accounting for Mergers and Acquisitions

INTRODUCTION

This chapter surveys the accounting issues in M&A. In the context of designing a particular deal, one should explore these issues with the assistance of an accounting professional. Success and professionalism in M&A depend on the mastery of some essential knowledge that will permit better interaction with accounting professionals and more insightful design of deals. This survey offers lessons in six areas:

1. **Overview of accounting rules and choices.** Accounting rules can shape the conduct of firms in M&A. Even though the rules constrain what firms can do in reporting the results of M&A transactions, firms retain a fair amount of latitude in their application of the rules. This chapter will outline some of the areas of latitude, especially in regard to the treatment of *goodwill*. Also relevant for executives is the *Sarbanes-Oxley Act (SOA)*, which imposes harsh penalties for failing to report financial results that are fair and accurate.
2. **Mechanics of purchase accounting for business combinations.** This should include *purchase accounting* for both complete and partial acquisitions. This chapter will walk you through these mechanics with a simplified example. The appendix sketches the mechanics of pooling-of-interests accounting for business combinations and why *pooling of interests* has been eliminated.
3. **Interpretation of reported financial results under alternative accounting choices.** The chapter will define the concept of *dilution* and explore other measurable results. We will examine the effect of cash and stock payments on net income, earnings per share, cash flow per share, and financial leverage.
4. **Linkage of accounting choices with form of payment, financing, and price** in the design of M&A transactions. We will explore how this linkage occurs and its effect on the overall transaction design.
5. **Financial accounting for M&A** can become an instrument for an adverse earnings management game in which players seek to enhance the appearance of Newco and thus disguise economic reality. Examples of gaming behavior are allocating the purchase consideration in advantageous ways and/or writing off values of intangible assets. In extreme circumstances the game amounts to *fraud*. The chapter sketches the case of WorldCom Inc. as an example of fraudulent earnings management in M&A.

6. **Think like an investor.** Ideally, M&A accounting would clarify our focus on the true economics of deals. But gaming behavior, the wide latitude of choice, and overwhelming attention to EPS dilution can cloud rather than clarify our analysis. Both the deal analyst and the senior executive must exercise caution in the interpretation of historical and pro forma financial results surrounding an acquisition.

OVERVIEW OF PURCHASE ACCOUNTING

Insights into the effects of accounting choices on M&A transactions must start from an understanding of the rules of M&A accounting. This section surveys the rules of purchase accounting and illustrates their application.

Financial Accounting Standards 141 and 142

The Financial Accounting Standards Board (FASB) issued *FAS 141 and 142*¹ that became effective after June 30, 2001. These landmark rules changed the method of accounting for mergers and acquisitions in significant ways.

MANDATES PURCHASE ACCOUNTING All business combinations must be accounted for by the purchase method of accounting. The FASB banned the alternative method of M&A accounting, the pooling-of-interests² method, which is summarized in Appendix 16.1. The FASB believed that the purchase method best reflected the economic reality of acquisitions. The purchase method is described in detail later in this chapter.

ELIMINATES AMORTIZATION OF GOODWILL, BUT REQUIRES TESTING FOR IMPAIRMENT

When a buyer pays a premium to acquire a target, purchase accounting requires the recognition of goodwill as an asset. Goodwill arises as the difference between the purchase price of the target company and the fair market value (FMV) of the assets³—goodwill is the premium paid over and above the value of identifiable assets of the firm. Previous accounting rules had required *amortization* of goodwill over a period no longer than 40 years under the theory that goodwill is an asset that wastes away as it generates revenues. But FAS 142 argued that this imposed a finite life on an asset that could have an *indefinite* useful life.⁴ Instead of amortizing goodwill, the FASB required that goodwill be tested at least annually⁵ for *impairment* or loss of value. To do this, goodwill first must be allocated to a *reporting unit*. One analyst wrote, “The single most critical choice a company makes in implementing FAS no. 141 and 142 is likely to be its initial choice of reporting units. Goodwill assigned to a poorly performing reporting unit may have to be written down immediately, or at least soon. Conversely, goodwill assigned to a highly profitable reporting unit may never face an impairment write-down.” (King 2001, page 2) FAS 142 requires a two-step test for impairment:

1. Compare the FMV of a reporting unit with its carrying value of assets, including goodwill. If carrying value exceeds FMV, then proceed to the second step to determine the amount of impairment loss.

2. Compare the FMV of the reporting unit's goodwill with its carrying value. If the carrying value exceeds the FMV of goodwill, the excess must be recognized that year as an impairment loss against earnings.

Practitioners have greeted this new treatment of goodwill as a mixed blessing. On one hand, the absence of the arbitrary goodwill amortization improves the transparency of reported earnings. But on the other hand, goodwill impairment tests could deliver some negative surprises to company earnings, perhaps at a time when a company least wants them. A final detail is that a company cannot write up, or increase, goodwill at some later date; its maximum value is set at the consummation of the M&A transaction.

TIGHTENS THE RECOGNITION OF INTANGIBLE ASSETS The new accounting standards clarified the recognition of *intangible assets* as a separate asset category. In purchase accounting, one must allocate the price paid to various tangible and intangible asset categories—anything left over from this allocation process must be classified as goodwill. The new standards clarified how value might be allocated between intangibles and goodwill. FAS 141 required the intangible assets should be recognized apart from goodwill if they meet two criteria:

1. *The contractual-legal criterion* held that some intangible assets arise from contractual rights, such as licensing the use of a patent.
2. *The separability criterion* allowed that the intangible asset is capable of being separated from the target firm and sold, licensed, rented, or exchanged, then it may be recognized. Customer and subscriber lists, customer deposits, trademarks, secret formulas, and know-how that accompany a trademark meet this criterion and may be recognized.

Exhibit 16.1 gives a listing of types of intangible assets that meet either of the criteria for recognition apart from goodwill. Intangible assets that are subject to amortization must be disclosed in notes to the financial statements, including the amounts assigned, the amount of any significant residual value, and the weighted-average amortization period. Intangible assets that are *not* subject to amortization must be disclosed in notes, indicating the amounts assigned. For goodwill, notes must disclose the total amount assigned and the amount expected to be deductible for tax purposes. Also, goodwill must be reported by a business reporting unit.

AMORTIZATION OF INTANGIBLE ASSETS, AND CHARGES FOR IMPAIRMENT Intangible assets may have indefinite useful lives and need not be amortized under the new rules. However, intangible assets whose lives are finite must be amortized over their useful lives. Also, any impairment of intangible asset value must be charged to earnings that year.

In sum, the rules for M&A accounting embed several points of judgment for the M&A practitioner (and with concurrence of the firm's auditor), including the determination of:

- Fair market values of tangible and intangible assets.
- Useful lives of tangible assets and, as a consequence, their annual depreciation charge to earnings.

EXHIBIT 18.1 Intangible Assets That Meet the Criteria for Recognition Apart from Goodwill

Marketing-Related Intangible Assets	Customer-Related Intangible Assets	Artistic-Related Intangible Assets	Contract-Based Intangible Assets	Technology-Based Intangible Assets
<ul style="list-style-type: none"> • Trademarks, trade names. • Service marks, collective marks, certification marks. • Trade dress (unique color, shape, or package design). • Newspaper mastheads. • Internet domain names. • Noncompetition agreements. 	<ul style="list-style-type: none"> • Customer lists. • Order or production backlogs. • Customer contracts and related customer relationships. • Noncontractual customer relationships. 	<ul style="list-style-type: none"> • Plays, operas, ballets. • Books, magazines, newspapers, other literary works. • Musical works such as compositions, song lyrics, and advertising jingles. • Pictures, photographs. • Video and audiovisual material, including motion pictures, music videos, television programs. 	<ul style="list-style-type: none"> • Licensing, royalty, standstill agreements. • Advertising, construction, management, service, or supply contracts. • Lease agreements. • Construction permits. • Franchise agreements. • Operating and broadcast rights. • Use rights such as drilling, water, air, mineral, timber cutting, and route authorities. 	<ul style="list-style-type: none"> • Patented technologies. • Computer software and mask works. • Unpatented technologies. • Databases. • Trade secrets such as secret formulas, processes, recipes.

Source of data: FAS 141.

- Useful lives of intangible assets and, as a consequence, their annual amortization charge to earnings.
- Value of goodwill as part of the annual impairment test.

Judgments made in areas such as these will affect the buyer's reported balance sheet, earnings per share, tax expense, and free cash flow.

Illustration of Basic Purchase Accounting: Acquisition of 100 Percent of the Target

The key idea of purchase accounting is that the buyer should recognize an acquisition at the *cost of the transaction* as if the buyer were purchasing a bundled set of assets and liabilities on the open market. The target firm is recorded on the buyer's books at the purchase price, which is assumed to be fair market value of the entire entity acquired. Purchase accounting requires that the purchase price, the total consideration paid, be allocated among the various accounts of current assets and fixed assets according to the FMV of each. Consider the possible implications:

- **Inventory** could be substantially restated in value (this restatement could be especially significant when the target uses LIFO accounting in an inflationary economic environment). Also, the cost of goods sold for the newly acquired operation could be significantly different from the past, due to the restated value of inventory. This may have a significant effect on the subsidiary's gross margin.
- **Accounts receivable** will be recorded by the buyer at the cash flows it expects to realize. Note that the buyer and the target might have differing opinions as to the realizability of those receivables, based on their differing perspectives about allowances for doubtful accounts. Bad debts that the target should have recognized may not have been reported previously and must now be recognized as part of the purchase price allocation.
- **Fixed assets** would be restated to fair market value. Land, and plant or equipment, which the target had purchased many years ago and carried for many years at historical cost, would likely be stepped up to a higher value through purchase accounting of an acquisition. As a result, annual depreciation expense will increase—the buyer retains discretion over the economic life over which to depreciate the stepped-up basis of fixed assets. Also, purchase accounting in effect eliminates the target firm's historical accumulated depreciation and restarts the depreciation clock.
- **Goodwill** may be created. This is the difference between purchase price and FMV of the target's identifiable assets.⁶ It reflects asset value not readily recognized in other asset categories and can be thought of as the economic premium over the FMV of the bundle of assets and liabilities. As long as the value of goodwill is not impaired, goodwill has no impact on the reported earnings of the firm.⁷
- **Liabilities** are recorded at their fair market value. If interest rates and dividend yields in the capital markets have changed significantly from the date of original issue, fixed income securities might need to be recorded at a significant variance from face value.

No retroactive restatement of the buyer's past financial results is permitted under purchase accounting—the treatment here is no different from the buyer acquiring any other asset on the open market. But as a result, it will be difficult to compare the buyer's financial statements from before and after the transaction: If ExxonMobil buys Microsoft, is ExxonMobil the same company after the deal as it was before? Hardly; the portfolio of ExxonMobil's real economic activities and its financial statements will change dramatically, particularly showing very large growth in assets, sales, and net income that year. The purchase accounting method for M&A may present the illusion of growth even where the buyer and target firms are mature or in decline. The illusion arises if one focuses on size rather than *economic efficiency*.⁸ But accounting standards require disclosures that should allow the reader of the statements to assist the reader in gauging the economic impact of the transaction. Unfortunately, those disclosures only deal with data from the current year and the year immediately preceding. Also, the detail in these disclosures can vary from one company to the next, leaving the outside analyst generally wanting more information about the accounting results of M&A.

Acquisition of Less Than 100 Percent of the Target Firm

Partial acquisitions (including the acquisition of a major portion of the stock of a target, or a division or certain assets of a target) will use some variation of purchase accounting. The specific accounting approach correlates with the degree of ownership and control, as suggested in this table:

<i>Method of Accounting</i>	<i>Ownership Percentage of Shares</i>	<i>Implied Degree of Control</i>
Consolidation method	Greater than 50%	Majority voting control
Equity method	20 to 50%	Material voting power without majority control
Cost method	Less than 20%	Less significant voting power

The intent of the rules is that the parent should consolidate the partially owned target when the parent effectively controls it. The parent could effectively control the target with less than 50 percent ownership through, for instance, the right to appoint the target's management and the control of key resources. Also, Chapter 15 showed that your voting power is not simply a matter of the percentage of votes you hold, but also the concentration of votes among other shareholders. Under election of directors by the cumulative voting method, a holder of a block of 19 percent of the votes in a firm whose shares are otherwise widely dispersed among shareholders could have significant influence over the board and the firm. You should use the *consolidation method* when you effectively control the partially owned firm.

Unfortunately, one has no discretion in the other direction. Golden shares,⁹ standstill agreements,¹⁰ and dual-class¹¹ shareholding structures can cause influence or control to be lower than would be indicated by an equity interest. Even if a holder of 51 percent is deemed not to have control, then the consolidation method still must be used.

CONSOLIDATION METHOD The valuation of assets acquired and liabilities assumed in an acquisition of more than 50 percent of the outstanding stock of a target company should be based on a pro rata allocation of fair market values and historical carrying values. The buyer should record the target company's assets it has acquired at fair market values and recognize goodwill. The remaining portion of the target company's assets and liabilities represents the minority interests' ownership in the target company and, is also carried at fair market values.

Consider an example in which the buyer acquires 60 percent of the assets and liabilities of the target under the purchase method of accounting. Assume that the buyer is an investment vehicle composed of \$6,000 in cash and \$6,000 in shareholder's equity. The target is a manufacturing company with a book value of assets of \$8,000 and an enterprise value of \$10,000, for which the fair market value of identifiable assets is estimated to be \$9,000. The buyer uses its \$6,000 to purchase 60 percent of the target's stock (the target has no debt, so equity value equals enterprise value). Exhibit 16.2 summarizes the change in the buyer's balance sheet. The buyer should record the following consolidating changes in the buyer's balance sheet:

- Credit cash \$6,000.
- Debit identifiable assets \$9,000, reflecting the acquisition of the target's identifiable assets.

EXHIBIT 16.2 Consolidation of a Partial But Majority Interest in a Target

Percentage of target acquired by buyer	60%		
Price paid	\$6,000		
<hr/>			
	Company B		
Enterprise value of target	\$10,000		
FMV of identifiable assets of target	\$ 9,000		
Carrying (book) value of assets of target	\$ 8,000		
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	Buyer's Balance Sheet		
	<hr/>		
	Before	Transaction Adjustments	After
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Assets			
Cash	\$6,000	\$(6,000)	\$ —
Identifiable assets	\$ —	\$ 9,000	\$ 9,000
Goodwill	\$ —	\$ 1,000	\$ 1,000
Total assets	\$6,000	\$ 4,000	\$10,000
Liabilities			
Minority interest	\$ —	\$ 4,000	\$ 4,000
Shareholder's equity	\$6,000	\$ —	\$ 6,000
Total	\$6,000	\$ 4,000	\$10,000

- Debit goodwill \$1,000 (the purchase price, \$10,000, less the FMV of identifiable assets, \$9,000).
- Credit minority interests \$4,000 (\$10,000 value of the enterprise less the \$6,000 acquired by the buyer).

The notable outcome with consolidation is that the value of the whole target is carried on the buyer's balance sheet.

All of the target's income statement flows would be added to the buyer's income statement, less a deduction for the minority investors' interest in the profits or losses of the target.

EQUITY METHOD Significant influence, but not majority control, of a target company requires the buyer to recognize its interest in the target using the *equity method* of accounting. Under this method, the buyer recognizes its investment in the target at the cost of purchasing those shares. In addition, the buyer's implied percentage ownership interest in the net earnings of the target will be reflected as an increase in its balance sheet account "Investment in Target Company." Earnings of the target are reflected pro rata as flows through the buyer's income statement. In effect, net undistributed pro rata earnings by the target are simply added to the investment account. Dividends of the target are reflected as a return of invested capital, as a reduction in the account "Investment in Target Company," and as an increase in cash.

COST METHOD Where the buyer has insignificant control of the target, the buyer would account for the acquisition under the *cost method*. Under the cost method, the buyer simply recognizes the investment in the securities of the target firm at the cost of acquisition. Typically, this amount would be reflected on the balance sheet in an account named "Investment in Affiliate(s)." On an ongoing basis, however, the FASB requires fair value accounting for securities that are readily marketable.

COMPARISON OF CONSOLIDATION AND EQUITY METHODS The consolidation and equity methods of accounting for partial acquisitions can produce significantly different effects on the reported financial results of the buyer. Both methods produce the same net income and net worth of the buyer.¹² Under consolidation, the target's assets, liabilities, revenues, expenses and cash flows are included in the accounts of the buyer—less, of course, the interest of the minority investors. Under the equity method, however, the target affects only the buyer's investment account and net income. Cash flows are similarly affected. Under consolidation, many of the buyer's cash flow items can be affected by the target's performance. Under the equity method, only the actual cash flows between the target and buyer will be reflected in the cash flow statement. The chief difference between consolidation and equity methods is whether the target appears *on- or off-balance sheet* of the buyer. Thus, the buyer's accounting-data leverage ratios and returns on assets and equity could vary significantly between the two methods.

HOW TO INTERPRET REPORTED FINANCIAL RESULTS IN AN M&A TRANSACTION

It makes sense to reflect on the basis on which one could compare alternative accounting choices. Very often, seasoned finance and accounting professionals will reduce the complex comparison to only one dimension, such as the impact on earnings per share (EPS). But doing so poorly serves the decision-making process. The best decision makers will *weigh trade-offs* among competing costs and benefits of the different alternatives. In order to highlight the trade-offs, one must inventory a full range of effects.

Accounting Dilution and Accretion

Earnings per share (EPS) is an ongoing concern to executives and directors who believe that this single measure is the main focus of attention by investors and the financial community.¹³ For acquisitions, the buyer firm typically compares actual expected EPS for the current year to the pro forma EPS for the same year, assuming consummation of the acquisition. A reduction in EPS is *dilution*, and an increase is *accretion*. The deal design alternative that produces less dilution or more accretion than the other is judged the more attractive.

Cash flow EPS (CEPS), defined in its simplest¹⁴ terms, is the sum of net income and noncash charges (such as goodwill amortization), divided by the number of shares outstanding. This is of interest to analysts who believe that share prices are driven by economic reality, and not influenced by accounting cosmetics. For instance, noncash charges do not represent real economic flows of value (unless they have side effects, such as reducing the tax expense of the firm).

The main drawback of EPS and CEPS is that they typically focus on short-term data: one year's future projected results, and perhaps one to three years in the past. Yet the effect of accounting choices will endure for many years. This suggests that one should look at the impact on free cash flow or residual cash flow over the longer term and estimate its effect in present value terms. For instance, asset allocation choices for the purpose of determining goodwill will affect the future depreciation tax shields, which in turn will affect the value of the firm. Valuation techniques such as discounted cash flow can help model how accounting choices may affect the long-term value of the firm.

Other Measures of Financial Performance Related to Financial Statements

Other measures can offer important insights into the financial consequences of accounting choices. Consider the following areas:

- **Financial leverage ratios.** Many firms are debtors. Usually, covenants in their loan agreements dictate minimum interest coverage ratios, and maximum debt/equity and dividend payout ratios or policies. We will see that accounting choices in M&A can affect the results obtained under these covenant tests, and thus the ability of the firm to borrow funds in the future (unless loan agreements are rewritten).

- **Profit margins: gross margin, operating earnings, and net income.** Purchase accounting for M&A affects many asset categories, which, in turn, affect items on the income statement. The allocation of the target's purchase consideration to receivables, inventory, and fixed assets will be affected, which will, in turn, alter the cash revenues, cost of goods sold, and gross margin. Intangible asset amortization affects net income, as do goodwill impairment charges.
- **Asset efficiency and leverage, and returns on equity and assets.** As noted earlier, the choice among methods of accounting for a partial acquisition can affect whether the target appears on- or off-balance sheet of the buyer. In turn, this affects measures of asset efficiency, leverage, and accounting returns.
- **Liquidity.** Other things equal, larger allocations of the FMV of the target purchase price to current assets will enhance the appearance of the liquidity of Newco.

An Illustrative Example

To illustrate the kinds of differences in financial reporting results that one may encounter due to accounting choices, consider the following example,¹⁵ in which financial results are presented for two cases:

1. Purchase accounting: Buyer purchases the target by issuing shares of common stock.
2. Purchase accounting: Buyer purchases the target with cash financed by issuing debt.

For simplicity, the example assumes two firms that have identical expected revenues for the next year, 2004. Their balance sheets and income statements are similar in size. Thus, this could be a merger of equals. The target, however, has been growing more rapidly than the buyer and is expected to do so in the future. The transaction is assumed to take place in early 2004, although for reporting purposes to its shareholders the buyer prepares pro forma results for 2003.

In essence, the transaction contemplates that the buyer will pay a total of \$2,000 for the target's stock (a market value of \$2.00 per share), either in cash or with 1,000 shares of the buyer's stock (the example will look at the results with both forms of payment). Also, the buyer will assume \$946 of liabilities (current and long-term) of the target. In summary, the total value of the deal (total consideration paid) is \$2,946.¹⁶ The goodwill created in this purchase transaction is simply the difference between the total consideration paid for the target of \$2,946 and the fair market value of identifiable assets of \$2,475 (assumed to be allocated \$100 to current assets, \$500 to intangible assets and \$1,875 to gross fixed assets). The amount of goodwill is thus \$471.¹⁷ Exhibit 16.3 gives the historical and projected financial results for both the buyer and target. The restatement of the past year's results is offered here merely for illustration. Other than the differences in deal terms and accounting, the assumptions about the two companies will remain the same in both illustrations.

PURCHASE ACCOUNTING: ACQUISITION WITH STOCK First, consider the case in which the buyer purchases the target by issuing common stock as consideration. The

EXHIBIT 16.3 Historical Statements and Financial Forecasts for Buyer and Target

Line	Buyer Firm					Target Firm						
	Historical			Forecasted		Historical		Forecasted				
	2001	2002	2003	2004	2005	2006	2001	2002	2003	2004	2005	2006
1 Current assets	\$ 86.4	\$ 90.7	\$ 95.2	\$ 100.0	\$ 105.0	\$ 110.3	\$ 57.9	\$ 69.4	\$ 83.3	\$ 100.0	\$ 120.0	\$ 144.0
2 Gross fixed assets	\$ 1,295.8	\$ 1,360.5	\$ 1,482.6	\$ 1,500.0	\$ 1,575.0	\$ 1,653.8	\$ 868.1	\$ 1,041.7	\$ 1,250.0	\$ 1,500.0	\$ 1,800.0	\$ 2,160.0
3 Accumulated depreciation	\$ (85.5)	\$ (153.6)	\$ (225.0)	\$ (300.0)	\$ (378.8)	\$ (461.4)	\$ (110.4)	\$ (162.5)	\$ (225.0)	\$ (300.0)	\$ (390.0)	\$ (498.0)
4 Intangible assets	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 500.0	\$ 500.0	\$ 500.0	\$ 500.0	\$ 500.0	\$ 500.0
5 Goodwill	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
6 Assets	\$ 1,296.6	\$ 1,297.7	\$ 1,298.8	\$ 1,300.0	\$ 1,301.3	\$ 1,302.6	\$ 1,315.5	\$ 1,448.6	\$ 1,608.3	\$ 1,800.0	\$ 2,030.0	\$ 2,306.0
7 Current liabilities	\$ 43.2	\$ 45.4	\$ 47.6	\$ 50.0	\$ 52.5	\$ 55.1	\$ 28.9	\$ 34.7	\$ 41.7	\$ 50.0	\$ 60.0	\$ 72.0
8 Debt	\$ 900.7	\$ 768.9	\$ 619.2	\$ 450.0	\$ 259.6	\$ 46.0	\$ 816.6	\$ 860.1	\$ 904.7	\$ 950.0	\$ 995.7	\$ 1,041.4
9 Equity	\$ 352.7	\$ 483.4	\$ 632.0	\$ 800.0	\$ 989.2	\$ 1,201.4	\$ 470.0	\$ 553.8	\$ 662.0	\$ 800.0	\$ 974.3	\$ 1,192.6
10 Liabilities & equity	\$ 1,296.6	\$ 1,297.7	\$ 1,298.8	\$ 1,300.0	\$ 1,301.3	\$ 1,302.6	\$ 1,315.5	\$ 1,448.6	\$ 1,608.3	\$ 1,800.0	\$ 2,030.0	\$ 2,306.0
11 Revenues	\$ 1,727.7	\$ 1,814.1	\$ 1,904.8	\$ 2,000.0	\$ 2,100.0	\$ 2,205.0	\$ 1,157.4	\$ 1,388.9	\$ 1,666.7	\$ 2,000.0	\$ 2,400.0	\$ 2,880.0
12 Cost of materials & labor	\$ (1,382.1)	\$ (1,451.2)	\$ (1,523.8)	\$ (1,600.0)	\$ (1,680.0)	\$ (1,764.0)	\$ (925.9)	\$ (1,111.1)	\$ (1,333.3)	\$ (1,600.0)	\$ (1,920.0)	\$ (2,304.0)
13 Depreciation	\$ (64.8)	\$ (68.0)	\$ (71.4)	\$ (75.0)	\$ (78.8)	\$ (82.7)	\$ (43.4)	\$ (52.1)	\$ (62.5)	\$ (75.0)	\$ (90.0)	\$ (108.0)
14 Interest expense	\$ (90.1)	\$ (76.9)	\$ (61.9)	\$ (45.0)	\$ (26.0)	\$ (4.6)	\$ (81.7)	\$ (86.0)	\$ (90.5)	\$ (95.0)	\$ (99.6)	\$ (104.1)
15 Profit before taxes	\$ 190.7	\$ 217.9	\$ 247.6	\$ 280.0	\$ 315.3	\$ 353.7	\$ 106.4	\$ 139.7	\$ 180.4	\$ 230.0	\$ 290.4	\$ 363.9
16 Taxes @ 40%	\$ (76.3)	\$ (87.2)	\$ (99.0)	\$ (112.0)	\$ (126.1)	\$ (141.5)	\$ (42.6)	\$ (55.9)	\$ (72.1)	\$ (92.0)	\$ (116.2)	\$ (145.5)
17 Net profit	\$ 114.4	\$ 130.7	\$ 148.6	\$ 168.0	\$ 189.2	\$ 212.2	\$ 63.9	\$ 83.8	\$ 108.2	\$ 138.0	\$ 174.3	\$ 218.3
18 Number of shares	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
19 Earnings per share	\$ 0.11	\$ 0.13	\$ 0.15	\$ 0.17	\$ 0.19	\$ 0.21	\$ 0.06	\$ 0.08	\$ 0.11	\$ 0.14	\$ 0.17	\$ 0.22
20 Operating cash flow per share	\$ 0.18	\$ 0.20	\$ 0.22	\$ 0.24	\$ 0.27	\$ 0.29	\$ 0.11	\$ 0.14	\$ 0.17	\$ 0.21	\$ 0.26	\$ 0.33
21 Return on equity	32%	27%	24%	21%	19%	18%	14%	15%	16%	17%	18%	18%
22 Net profit margin	7%	7%	8%	8%	9%	10%	6%	6%	6%	7%	7%	8%
23 Asset turns	1.33	1.40	1.47	1.54	1.61	1.69	0.88	0.96	1.04	1.11	1.18	1.25
24 Debt/liabilities & equity	69%	59%	48%	35%	20%	4%	62%	59%	56%	53%	49%	45%
Value per share												
Discounted cash flow	\$ 2.43	\$ 2.48	\$ 2.53	\$ 2.58	\$ 2.62	\$ 2.66	\$ 1.72	\$ 2.01	\$ 2.36	\$ 2.78	\$ 3.28	\$ 3.87
Multiple of earnings	\$ 2.04	\$ 2.33	\$ 2.65	\$ 3.00	\$ 3.00	\$ 3.00	\$ 1.14	\$ 1.50	\$ 1.93	\$ 2.46	\$ 2.76	\$ 3.09
KO	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Earnings multiple	17.9	17.9	17.9	17.9	15.9	14.1	17.9	17.9	17.9	17.9	15.9	14.1

purchase price for the target's equity of \$2,000 will be paid with 1,000 shares of the buyer's common stock, with a market value of \$2.00 per share.¹⁸ The calculation of pro forma results for the year 2003 just completed, and the forecasted financials for the next three years is given in Exhibit 16.4.

The following entries are made in purchase accounting:

- Note a: Target current assets are added at their fair market value.
- Note b: Target gross fixed assets are added at their fair market value.
- Note c: Target intangible assets of \$500 are added at fair market value.
- Note d: Goodwill of \$471 is introduced as an asset at closing.
- Notes e and f: Current liabilities and debt for the target are added to liabilities at fair market value.
- Note g: Equity reflects the fair market value of common stock issued in the purchase.
- Notes h, i, and j: Income statement items are simply added together.¹⁹
- Notes k and l: A new line is introduced to reflect any amortization of intangible asset value. Also, observe line 15 that holds the possibility of write-offs from the impairment of goodwill.
- Note m: The change in number of shares reflects 1,000 shares issued in the transaction.

PURCHASE ACCOUNTING: ACQUISITION WITH CASH, FINANCED BY AN ISSUE OF DEBT

Next, consider the case in which the buyer purchases the target for cash financed by debt with an interest rate of 10 percent. Many of the adjustments are similar to those for the stock deal. The key differences in this case are a higher interest expense (and its resulting effect on net income), fewer shares outstanding, and a higher debt burden. Exhibit 16.5 presents the resulting financial statements of this case:

- Note f: Debt added is the previous debt of the target, \$905, plus the \$2,000 borrowed to finance the cash payment for the target's equity.
- Notes g and m: Equity and shares outstanding do not change because cash, rather than shares, was used to purchase the target.
- Note n: Interest expense leaps by \$291, but is shielded by the tax deductibility of interest.

SUMMARY OF THE COMPARISON Exhibits 16.4 and 16.5 provide a comparison of results for the two cases. Exhibit 16.6 gives the EPS dilution percentages over time for the two cases. The purchase using cash, financed with debt, produces the lowest EPS of all in 2003—this reflects the combined impact of amortization of intangible assets and interest expense. First, the acquisition is dilutive to EPS and CEPS immediately, but turns accretive as time passes. The magnitudes of the immediate dilution effect are large. The stock deal is dilutive to 2003 EPS and CEPS by 20 percent. The dilution in EPS reflects the issuance of new shares (for CEPS) and new shares with amortization of intangible assets (EPS). The cash deal is dilutive to 2003 EPS and CEPS by 21 percent. This reflects the burden of added interest expense and intangible asset amortization rather than of the issuance of new shares.

EXHIBIT 16.4 Purchase Accounting Results for Buyer: Stock-for-Stock Deal

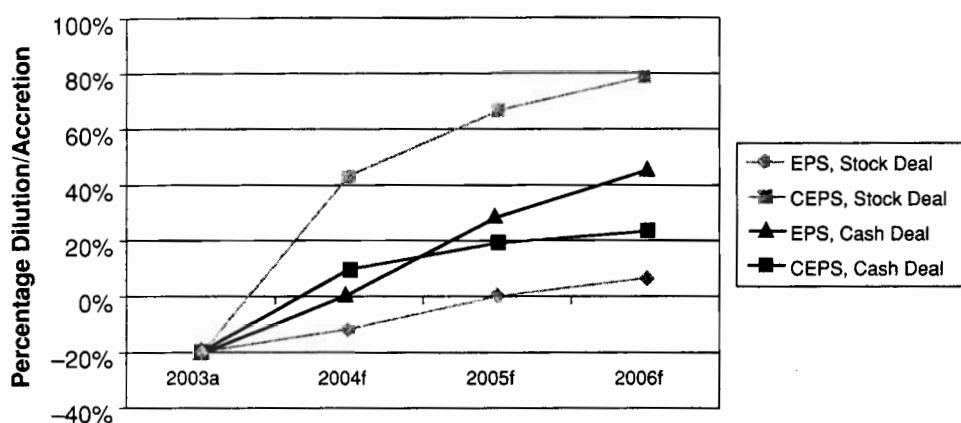
Line	Historical				As If Combined in 2003, Pro Forma		Forecasted		
	2001	2002	2003	Entries	New Balance		2004	2005	2006
1 Current assets	\$ 86.4	\$ 90.7	\$ 95.2	\$ 100.0	\$ 195.2		\$ 200.0	\$ 225.0	\$ 254.3
2 Gross fixed assets	1,295.8	1,360.5	1,428.6	1,875.0	3,303.6		3,000.0	3,375.0	3,813.8
3 Accumulated depreciation	(85.5)	(153.6)	(225.0)		(225.0)		(390.2)	(540.2)	(708.9)
Intangible assets	—	—	—	500.0	500.0		428.6	357.1	285.7
4 Goodwill	—	—	—	471.3	471.3		471.3	471.3	471.3
5 Assets	1,296.6	1,297.7	1,298.8	2,946.3	4,245.1		3,709.7	3,888.3	4,116.1
6 Current liabilities	43.2	45.4	47.6	41.7	89.3		100.0	112.5	127.1
7 Debt	900.7	768.9	619.2	904.7	1,523.9		680.5	467.5	228.3
8 Equity	352.7	483.4	632.0	2,000.0	2,632.0		2,929.2	3,308.3	3,760.7
9 Liabilities & equity	1,296.6	1,297.7	1,298.8	2,946.3	4,245.1		3,709.7	3,888.3	4,116.1
10 Revenues	1,727.7	1,814.1	1,904.8	1,666.7	3,571.4		4,000.0	4,500.0	5,085.0
11 Cost of material & labor	(1,382.1)	(1,451.2)	(1,523.8)	(1,333.3)	(2,857.1)		(3,200.0)	(3,600.0)	(4,068.0)
12 Depreciation	(64.8)	(68.0)	(71.4)	(93.8)	(165.2)		(165.2)	(150.0)	(168.8)
13 Synergies	—	—	—	—	—		—	—	—
14 Amortization of intangibles	—	—	—	—	—		(71.4)	(71.4)	(71.4)
15 Goodwill impairment	—	—	—	—	—		—	—	—
16 Interest expense	(90.1)	(76.9)	(61.9)	(90.5)	(152.4)		(68.1)	(46.8)	(22.8)
17 Profit before taxes	190.7	217.9	247.6		396.7		495.3	631.8	754.0
18 Taxes @ 40%	(76.3)	(87.2)	(99.0)		(158.7)		(198.1)	(252.7)	(301.6)
19 Net profit	\$ 114.4	\$ 130.7	\$ 148.6		\$ 238.0		\$ 297.2	\$ 379.1	\$ 452.4
20 Number of shares	1,000	1,000	1,000	1,000	2,000	m	2,000	2,000	2,000
21 Earnings per share (EPS)	\$ 0.114	\$ 0.131	\$ 0.149		\$ 0.119		\$ 0.149	\$ 0.190	\$ 0.226
22 Cash flow per share (CFPS)	\$ 0.114	\$ 0.131	\$ 0.149		\$ 0.119		\$ 0.184	\$ 0.225	\$ 0.262
23 Return on equity	32%	27%	24%		9%		10%	11%	12%
24 Net profit margin	7%	7%	8%		7%		7%	8%	9%
25 Asset turns	1.33	1.40	1.47		0.84		1.08	1.16	1.24
26 Debt/liabilities & equity	69%	59%	48%		36%		18%	12%	6%
Accretion (Dilution) in Buyer's EPS and CEPS									
27 EPS without the acquisition					\$ 0.149		\$ 0.168	\$ 0.189	\$ 0.212
28 EPS after the acquisition					\$ 0.119		\$ 0.149	\$ 0.190	\$ 0.226
29 EPS dilution by year					-20%		-12%	0%	7%
30 CEPS without the acquisition					\$ 0.149		\$ 0.168	\$ 0.189	\$ 0.212
31 CEPS after the acquisition					\$ 0.119		\$ 0.184	\$ 0.225	\$ 0.262
32 CEPS dilution by year					-20%		10%	19%	23%

EXHIBIT 10.5 Purchase Accounting Results for Buyer: Cash-for-Stock Deal, Financed with Debt

Line	Historical				As If Combined in 2003, Pro Forma			Forecasted		
	2001	2002	2003		Entries	New Balance		2004	2005	2006
1 Current assets	\$ 86.4	\$ 90.7	\$ 95.2		\$ 100.0	a \$ 195.2		\$ 200.0	\$ 225.0	\$ 254.3
2 Gross fixed assets	1,295.8	1,360.5	1,428.6		1,875.0	b 3,303.6		3,000.0	3,375.0	3,813.8
3 Accumulated depreciation	(85.5)	(153.6)	(225.0)			(225.0)		(390.2)	(540.2)	(708.9)
Intangible assets	—	—	—		500.0	c 500.0		428.6	357.1	285.7
4 Goodwill	—	—	—		471.3	d 471.3		471.3	471.3	471.3
5 Assets	1,296.6	1,297.7	1,298.8		2,946.3	4,245.1		3,709.7	3,888.3	4,116.1
6 Current liabilities	43.2	45.4	47.6		41.7	e 89.3		100.0	112.5	127.1
7 Debt	900.7	768.9	619.2		2,904.7	f 3,523.9		2,808.2	2,731.0	2,636.2
8 Equity	352.7	483.4	632.0		—	g 632.0		801.5	1,044.8	1,352.7
9 Liabilities & equity	1,296.6	1,297.7	1,298.8		2,946.3	4,245.1		3,709.7	3,888.3	4,116.1
10 Revenues	1,727.7	1,814.1	1,904.8		1,666.7	h 3,571.4		4,000.0	4,500.0	5,085.0
11 Cost of material & labor	(1,382.1)	(1,451.2)	(1,523.8)		(1,333.3)	i (2,857.1)		(3,200.0)	(3,600.0)	(4,068.0)
12 Depreciation	(64.8)	(68.0)	(71.4)		(93.8)	j (165.2)		(165.2)	(150.0)	(168.8)
13 Synergies	—	—	—		—	—		—	—	—
14 Amortization of intangibles	—	—	—		—	—		(71.4)	(71.4)	(71.4)
15 Goodwill impairment	—	—	—		—	—		—	—	—
16 Interest expense	(90.1)	(76.9)	(61.9)		(290.5)	n (352.4)		(280.8)	(273.1)	(263.6)
17 Profit before taxes	190.7	217.9	247.6		—	196.7		282.6	405.5	513.2
18 Taxes @ 40%	(76.3)	(87.2)	(99.0)		—	(78.7)		(113.0)	(162.2)	(205.3)
19 Net profit	\$ 114.4	\$ 130.7	\$ 148.6		—	\$ 118.0		\$ 169.5	\$ 243.3	\$ 307.9
20 Number of shares	1,000	1,000	1,000		—	1,000		1,000	1,000	1,000
21 Earnings per share (EPS)	\$0.114	\$0.131	\$0.149		m	\$ 0.118		\$0.170	\$ 0.243	\$ 0.308
22 Cash flow per share (CFPS)	\$0.114	\$0.131	\$0.149		—	\$ 0.118		\$0.241	\$ 0.315	\$ 0.379
23 Return on equity	32%	27%	24%		—	19%		21%	23%	23%
24 Net profit margin	7%	7%	8%		—	3%		4%	5%	6%
25 Asset turns	1.33	1.40	1.47		—	0.84		1.08	1.16	1.24
26 Debt/liabilities & equity	69%	59%	48%		—	83%		76%	70%	64%
Accretion (Dilution) in Buyer's EPS and CEPS										
27 EPS without the acquisition						\$ 0.149		\$ 0.168	\$ 0.189	\$ 0.212
28 EPS after the acquisition						\$ 0.118		\$ 0.170	\$ 0.243	\$ 0.308
29 EPS dilution by year						-21%		1%	29%	45%
30 CEPS without the acquisition						\$ 0.149		\$ 0.168	\$ 0.189	\$ 0.212
31 CEPS after the acquisition						\$ 0.118		\$ 0.241	\$ 0.315	\$ 0.379
32 CEPS dilution by year						-21%		43%	66%	79%

EXHIBIT 16.6 Comparative EPS and CEPS Dilution Associated with Share-for-Share and Cash-for-Share Deals

	2003a	2004f	2005f	2006f
EPS, stock deal	-20%	-12%	0%	7%
CEPS, stock deal	-20%	10%	19%	23%
EPS, cash deal	-21%	1%	29%	45%
CEPS, cash deal	-21%	43%	66%	79%

Dilution and Accretion of EPS and CEPS

Source: Author's analysis.

Many securities analysts are not surprised to find that an acquisition is immediately dilutive; the large question for them is how fast it will turn accretive. Exhibit 16.6 shows that for both EPS and CEPS, the cash deal is more rapidly accretive.

The allocation of purchase price is significantly a matter of judgment and can have a material effect on EPS dilution and accretion. This is because allocations to identifiable assets result in charges to earnings, whereas goodwill does not. Exhibit 16.7 illustrates the impact on EPS dilution of different asset allocation schemes. This exhibit takes the base case forecasts of EPS from the previous examples and varies the initial asset allocation according to how much the values of fixed assets will be stepped up from their preexisting book values: The greater the step-up, the larger will be the allocation to identifiable assets, and the smaller to goodwill. Exhibit 16.7 shows the basic result that the larger allocations to identifiable assets result in greater dilution to EPS.

Can buyers adopt any allocation scheme they want? No. The allocation scheme must be approved by an auditing firm and the audit committee of the buyer's board of directors, all of whom must be concerned with the "fairness and accuracy" of financial reports as required in professional standards and laws such as the Sarbanes-Oxley Act. Thus, the results of Exhibit 16.7 ignore the constraining influence of the auditor.

EXHIBIT 18.7 Effect of Different Asset Allocations in Purchase Accounting for an Acquisition

Step Up in Asset Value	EPS, Stock	EPS, Cash
0.75	-10%	-1.6%
1.00	-14%	-7.9%
1.25	-17%	-14.2%
1.50	-20%	-20.6%
1.75	-23%	-26.9%

Note: This table gives the EPS dilution in the first year, associated with heavier or lighter allocation of the purchase price to fixed assets. EPS dilution increases as the values of gross fixed assets are stepped up from their book values before the merger. This creates more depreciation expense and lower reported EPS.

Source: Author's analysis.

Senior executives focus much of their thinking on the impact of the accounting method on EPS. Accounting dilution (or reduction in EPS) often becomes the single metric by which the choice is made. This book argues at several points that value creation, not cosmetic measures such as EPS, should be the guide for management decision making. Executives may choose a particular accounting policy because of its beneficial effects on EPS. But concerns over accounting treatment can easily distract executives from focusing on value creation, the real economic effects of the deal, and the mission of the firm.

Practical Insights about Accounting Dilution

The dilutive effects of a deal upon the buyer's reported EPS is a focus of intense analysis. The example here raises three important considerations. First, the extent of dilution (or accretion) can be influenced by accounting choices. Managers who focus on reported earnings as a measure of deal success will feel some incentive to manage EPS and the accounting choices in ways to minimize dilution—more is said about this in the section on the dangers of earnings management later in this chapter.

Second, synergies can trump accounting dilution. A detailed discussion of synergy is given in Chapter 11. But it is important to see that synergies can offset the impact of additional shares issued, interest expense, and goodwill. One can back-solve for the synergies needed to eliminate EPS dilution—doing so may be dangerous for the firm if it leads to imposing performance targets on managers; one should estimate synergies from the bottom up rather than the top down.

Third, other kinds of dilution may be more important. Chapter 18 distinguishes accounting dilution from economic dilution (i.e., NPV) and control dilution (i.e., percentage voting position). Best practitioners give greater weight to economic dilution than to accounting dilution.

LINKAGE AMONG ACCOUNTING CHOICES, FORM OF PAYMENT, FINANCING, AND PRICE

As the preceding example reveals, the reported financial results are affected by accounting choices. Thus, accounting choices can have a material effect on various deal terms. Consider the influence on just these three aspects:

1. **Form of payment.** Accounting choices and form of payment can both affect the buyer's earnings dilution. If the accounting treatment required by the buyer's auditors increases the dilution in the buyer's earnings per share, it could discourage the use of stock as a form of payment, since payment with stock will tend to worsen earnings dilution.
2. **Financing.** The presentation of pro forma and forecasted financial results can influence creditors and major investors. Accounting choices may affect judgments about the buyer's creditworthiness or investment attractiveness.
3. **Price.** Other things equal, higher prices will be associated with more goodwill. The desire to avoid, or the willingness to accept, goodwill on the buyer's balance sheet may affect the premium that the buyer offers.

The executive and M&A professional should think critically about these linkages: They may have more to do with accounting cosmetics than economic reality. Furthermore, these points serve to illustrate ways in which accounting choices might influence deal design.

DANGERS OF EARNINGS MANAGEMENT

The thrust of the discussion thus far in this chapter is that accounting for M&A transactions poses many choices for which careful judgment is required. This next section reviews the dark side of these choices: earnings management and fraud.

Types of Earnings Management

One of the most important insights of the discussion so far is that the financial accounting for business combinations offers some latitude for choices and judgments by executives and M&A professionals. If perceptions of performance stemming from accounting choices really affect the value of the firm's securities (this assumption is questioned in the next section), then executives may be motivated to manipulate the financial accounting for combinations to give it the best appearance. This kind of manipulation is gaming behavior, in which the buyer uses the system of generally accepted accounting principles to achieve outcomes that serve the buyer's self-interest, but may conflict with the intent of the system of principles. In a world of gaming behavior there may be losers as well as winners—thus, it will pay M&A practitioners, investors, creditors, and analysts to sharpen their awareness of this kind of behavior and defend against its adverse consequences. There are at least four broad categories of games:

1. **Earnings and EPS enhancement games.** Many executives believe that stable and consistently growing EPS is the foundation of a high valuation multiple for the firm. Accordingly, many buyers make accounting choices that help EPS to conform to a desired trend. There is a growing body of scientific research that suggests that it is cash flow, not EPS, that the investors care about. Under the *earnings enhancement* game, managers and some shareholders²⁰ may win at the expense of other shareholders who permit themselves to be fooled by EPS figures. Chapter 17 discusses this game in more detail.
2. **Credit enhancement games.** Lenders judge the creditworthiness of buyers based on the strength of their earnings and cash flow, and the size and quality of their asset base. Choices in the accounting for business combinations can affect these indicators. Bankers are trained to see through these *credit enhancement* effects, but the unwary may not catch the effect of accounting choices and may grant the debtor more credit than its company financial condition merits. The notable illustration of this game was the use by Enron of special purpose entities (SPEs), off-balance sheet enterprises that held assets and debt of Enron and were not included in the consolidated financial statements of the firm. SPEs are used widely in business and are permissible under laws and accounting rules. Enron's very aggressive use of SPEs had the effect of hiding liabilities and making the firm seem less levered than it was. It will be the focus of civil and criminal litigation for years. The rules on consolidation of SPEs are currently in revision and will probably be tightened substantially.
3. **Price maximization games.** Target companies can make accounting choices that help to realize a high selling price: "Big bath" write-offs of sour assets (or the deferral of such write-offs), tapping reserves, and careful timing of the recognition of revenues, expenses, and expenditures can help justify a higher selling price. A careful due diligence effort on the part of the buyer should expose *price maximization* abuses. In 1998, Symbol Technologies walked away from acquiring Telxon when it questioned whether \$14 million in revenues booked by Telxon were bona fide sales.²¹ After CUC International and HFS, Inc., merged to form Cendant Corporation in late 1997, Cendant discovered an estimated \$500 million in fraudulent revenue booked at CUC over the previous three years.
4. **Tax management games.** This chapter has focused on financial accounting rather than tax accounting. However, any short list of accounting-related games should include some mention of *tax management* games. Tax avoidance is approached by most firms in the spirit of expense management, a spirit at the core of good practice. Governments exploit this spirit through the tax code in seeking to motivate businesses in ways consistent with government policies. The tax code creates opportunities for firms to alter their operations in ways that reduce taxes. For instance, the location of plants and offices can expose the firm to higher or lower tax rates.²² The timing of recognition of receipts and expenses can affect a tax bill: Selling inefficient assets at a loss or using net operating loss carryforwards can be timed to offset the tax expense on temporarily high profits. At many firms, managing tax exposure is within the intent of the tax laws and GAAP. But pursued aggressively, it can lead to two adverse outcomes. First, tax exposure can drive the fundamental economic direction of the business, rather than the other way around; tax strategy could obscure the

larger mission of the firm. Second, a culture of aggressive tax management can morph into a culture of tax fraud. Managers must remain vigilant in their observance of ethical norms, laws, and the mission of the firm.

These various games can be played simultaneously, though quite often the accounting choices involve trade-offs among taxation, EPS, and credit and price enhancement. To illustrate the games and some of their trade-offs, consider the impact of choices regarding *allocation of purchase price*, amortization of purchase price, and EPS growth management.

ALLOCATION OF THE PURCHASE PRICE Under purchase accounting, the total consideration paid for the target is allocated to the assets that were purchased. Purchase accounting permits a step-up in basis of the assets to reflect their fair market value. The excess of the consideration over the fair market value of the assets is allocated to goodwill.

- **Goodwill minimization: a cash flow strategy.** Some executives detest goodwill in the belief that it confuses investors. Others fear possible future goodwill impairment charges. As a result of these concerns, buyers will seek to allocate as much of the purchase price to fixed assets that are depreciated and intangibles that are amortized—the net effect is to shield the firm from tax expense, which is beneficial to shareholders of the buyer.
- **Goodwill maximization: an EPS strategy.** If one is confident about the future value of goodwill and believes that impairment is unlikely, then maximizing the allocation to goodwill reduces the allocations to other assets. This, in turn, results in lower depreciation, amortization, and higher reported earnings.

AMORTIZATION AND WRITE-OFFS Buyers have some discretion over the rate at which the newly purchased assets can be depreciated, depleted, expensed, or amortized. For tax purposes, any acceleration of income-deductible expenses will increase the present value of tax shields to shareholders from the use of those assets. Reduction of tax expense is a benefit to shareholders. From a financial reporting standpoint, acceleration may reduce EPS. Management that is oriented to cash flow will want to accelerate the use of the assets; management oriented to EPS will want to slow the use of the assets.

Aggressive write-offs of capitalized in-process R&D expense received heightened attention from the Financial Accounting Standards Board and Securities and Exchange Commission (SEC) in 1998 and 1999. They observed a pattern in a number of high technology and pharmaceuticals deals of allocating a material percentage of the purchase amount to in-process R&D, and then writing it off shortly after the consummation of the deal. The buyers claimed that technological developments had rendered the R&D of little or no value, when, in fact, the R&D projects continued. A study²³ by Baruch Lev of New York University found that 400 firms had written off part of their acquisitions as in-process R&D during the 1990s, compared with only three in the 1980s. In the 1990s, the average write-off was 72 percent of the entire purchase price. Lev suggested that buyers may have assigned higher values to purchased R&D in order to lower the amount assigned to goodwill. For example, Excite paid \$70 million for a share in a joint venture with

Netscape Communications in 1998, and quickly wrote off \$58 million of it. One analyst applauded “the company’s creativity and chutzpah. . . . It is an aggressive accounting choice that distorts future operating earnings by making costs vanish like a puff of smoke.”²⁴ In July 1998, Lycos bought three firms for \$104 million and wrote off 87 percent of the allocation to in-process R&D.

EPS AND MOMENTUM If growth of EPS is a key driver of stock prices, purchase accounting in the context of an aggressive acquisition program can give the appearance of rapid growth when the firm’s ongoing operations may, in fact, be stagnant. Purchase accounting does not require restatement of prior years’ financial statements (unlike pooling). Thus, it might be possible for a buyer with no growth to acquire other no-growth firms and produce a time series of rapidly growing EPS.²⁵

Exhibit 16.8 suggests some of the possibilities of producing a managed EPS trajectory through the acquisition over time of no-growth firms A, B, and C. Because purchase accounting does not require restatement, *any accretive acquisition will give the appearance of growth*. The dashed line, showing that EPS is growing sharply, gives this illusion. In reality, the fairest benchmark of growth would be to compare the buyer’s EPS after any of the combinations against the sum of the EPSs of the separate firms before the deal. Analysts, however, almost never make this comparison.

An extension of managed EPS growth through acquisition is the creation of momentum in the share price of the buyer through reporting a sequence of positive EPS surprises over time. The momentum game is discussed more fully in Chapter

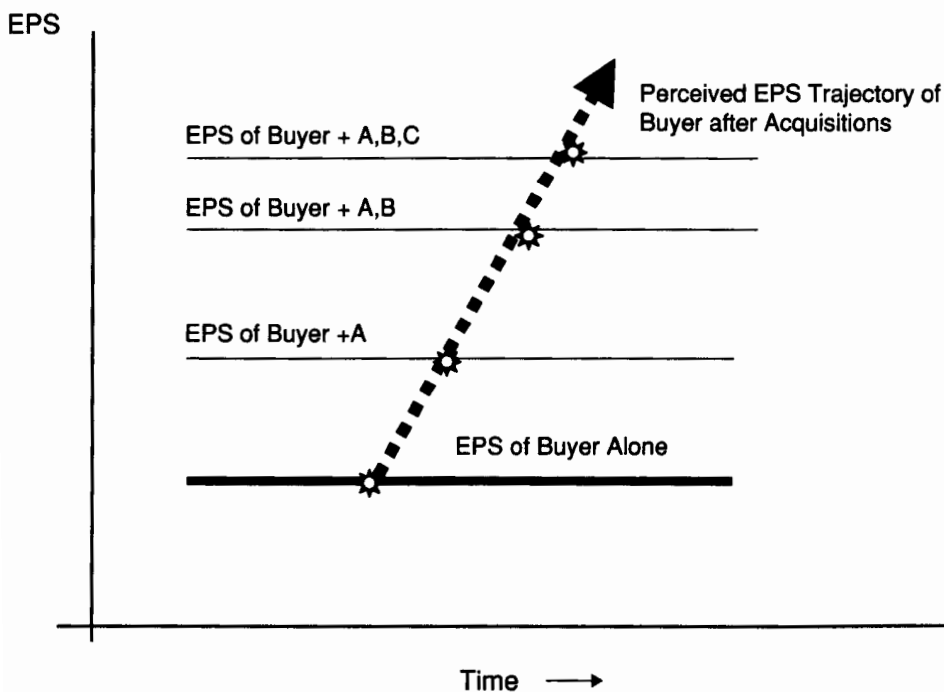


EXHIBIT 16.8 Hypothetical Managed EPS Trajectory

17. The flaws here are the assumptions that EPS growth drives stock prices, that EPS gains from momentum are sustainable indefinitely, and/or that at least some investors are easily fooled. Accordingly, the game exists between early equity investors and late equity investors. The gamble involves how rapidly the market will conclude that the beneficial economics have ended. Winners in this game are the early-arriving and early-departing investors; losers are the late-arriving and late-departing investors.

Research on Earnings Management

Practitioners, regulators, and some scholars believe that earnings management is pervasive and is a source of material costs to the investing public. Arthur Levitt, former chairman of the SEC, criticized the "widespread but too little challenged custom: earnings management." (Levitt 1998) He cited, among other practices, "big bath" accounting charges, creative acquisition accounting, and the creation of miscellaneous "cookie jar" reserves. Walter Schuetz, former chief accountant at the SEC, told the U.S. Senate that "earnings management is a scourge in this country. . . . We need to put a stop to earnings management."²⁶ Scholars have wrestled with problems about definition and measurement of earnings management, though recent studies suggest that earnings management is widespread and that its effect on investors is material.²⁷ At issue has been the question of whether sophisticated investors in financial markets are fooled by earnings management. The conventional wisdom had been that investors see through efforts to manage earnings. Perhaps in the wake of recent large accounting scandals, however, conventional wisdom and research findings have shifted.

Specifically with regard to M&A, studies reveal two effects that should concern investors and deal designers:

1. *Earnings management prior to leveraged buyouts.* DeAngelo (1988) suggested that buyouts of companies and divisions by their managers create incentives for those managers to understate earnings in advance of buyout. Though DeAngelo found no support for this hypothesis, two more recent studies do. Perry and Williams (1994) find that unanticipated accruals tend to be negative (i.e., decrease income) before buyouts. Marquardt and Wiedman (2002) also find that management in buyouts significantly delay revenue recognition before the deal.
2. *Earnings management prior to share-for-share acquisitions.* Three studies (Erickson and Wang 1999, Louis 2002, and Rahman and Bakar 2002) find that acquirers overstate their earnings in advance of a stock swap announcement. Louis also finds a significant negative correlation between the accruals and the long-term share price performance of the firm: The greater is the earnings management before the deal, the greater is the share price decline after—he finds that this is significant only in share-for-share deals and not in cash deals. Generally, this finding related to stock deals is consistent with general findings²⁸ for equity issuance by firms; as a general rule, it seems that firms manage earnings to produce gains in advance of an issue of stock.

More work on earnings management in the M&A context remains to be done. Of particular interest would be the use of accounting reserves, write-offs,

transaction structures, and earnings guidance to analysts in advance of, and following, transactions.

Earnings management has been defined as “non-neutral financial reporting” (Nelson et al. 2000, page 1), “a purposeful intervention in the external financial reporting process with the intent of obtaining some private gain (as opposed to, say, merely facilitating the neutral operation of the process)” (Schipper 1989, page 92), and “to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers” (Healy and Wahlen 1999, page 6). These definitions differ thinly from *financial fraud*, defined as the “deliberate misrepresentation of the financial condition of an enterprise accomplished through the intentional misstatement or omission of amounts or disclosures in the financial statements to deceive financial statement users.” (Certified Fraud Examiners 1993, cited in Dechow and Skinner 2000, page 6) Dechow and Skinner (2000) note that earnings management can constitute fraud, but that some forms of earnings management are within the bounds of generally accepted accounting principles (GAAP). They cite the example of the deferral of revenue recognition by a software company: Revenue is not “earned” until customer support is given. This has the effect of smoothing the recognition of revenues over time. From the practitioner’s standpoint, it is not entirely clear whether revenue deferral is “conservative” or “aggressive”—indeed, “earnings management” could be either. Exhibit 16.9 surveys other accounting choices across a spectrum of earnings management practices: from conservative accounting to *neutral earnings*, to aggressive accounting, to fraud. Nelson et al. (2000) surveyed auditors and found earnings management spanned 22 subject areas.²⁹

Earnings management could be motivated by the desire to meet earnings targets tacitly advised by the company and published by Wall Street analysts (Healey and Wahlen 1999) or to sustain earnings momentum (Skinner and Myers 1999).

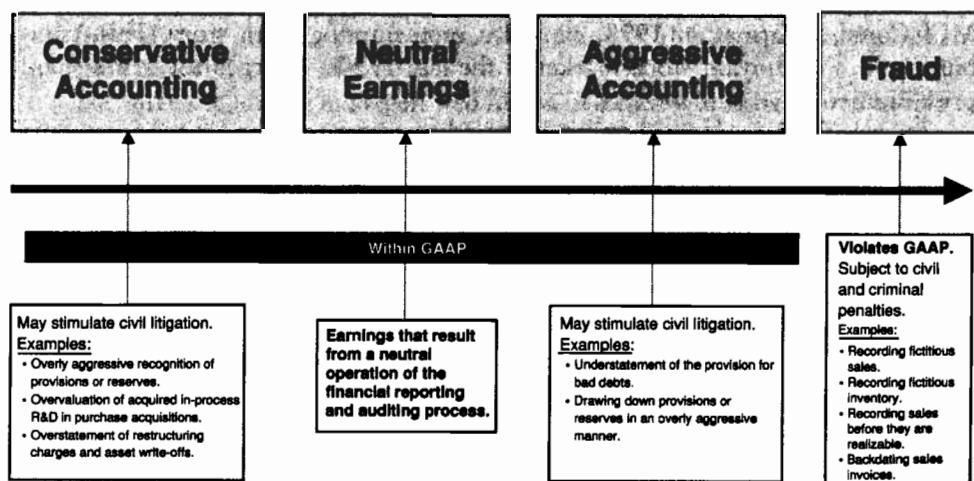


EXHIBIT 16.9 A Spectrum of Earnings Management Choices and Fraud
 From Patricia M. Dechow and Douglas J. Skinner, 2000, “Earnings Management: Reconciling the Views of Accounting Academics, Practitioners, and Regulators,” *Accounting Horizons* 14(2, June):235–250.

Watts (2003) notes that managers have limited tenure and liability, which perhaps encourages risk taking in accounting choices. Nelson et al. (2000, 2001) found that auditors were influenced in their judgments about earnings management attempts by managers according to size of the client (the larger, the more lax), materiality of the adjustment, and the imprecision of the rules. They found that auditors tended to waive earnings management attempts when the accounting rules were imprecise and the transaction was unstructured.

GAAP permits and generally encourages the exercise of managerial and auditor judgment under broad principles, such as conservatism of results. This encouragement arises from two considerations. First is flexibility: No rules-based system can anticipate all conditions at any point in time, or as conditions change over time. A good accounting system adapts to innovations in business and managerial behavior. Most importantly for M&A, a flexible system helps to promote the structuring of transactions in economically efficient ways. Second is measurability: Accounting seeks to represent economic reality, a task that is riddled with judgment. As Chapter 9 emphasizes, we cannot observe intrinsic value, we can only *estimate* it. A world of “no earnings management” would also be a world of no judgments and zero flexibility—this, in turn, would sacrifice the usefulness, relevance, and timeliness of financial reports as gauges of economic activity. Some practitioners have argued for an abandonment of accrual accounting in favor of mark-to-market accounting. But mark-to-market is at least as laden with opportunities for judgment and measurement error as accrual accounting.

Financial Fraud: Mini-Case on WorldCom Inc.

The largest corporate fraud in history entailed the alleged falsification of \$11 billion in profits at WorldCom Inc.³⁰ WorldCom was among the three largest long-distance telecommunications providers in the United States, the creation of a roll-up acquisition strategy by its CEO, Bernard Ebbers. Its largest acquisition, MCI Communications in 1998, capped a momentum-growth story. This, combined with the buoyant stock market of the late 1990s, enlarged the firm’s share price dramatically.

In early 2001, it dawned on analysts and investors that the United States was far oversupplied with long-distance telecommunications capacity. A Merrill Lynch analyst estimated that only 3 percent of the fiber-optic telecom capacity in the U.S. was actually in use. Much of that capacity had been put in place under inflated expectations of growing use by the Internet that would deliver a vast expanse of business and entertainment products over the telecom net. With the collapse of the Internet bubble, the future of telecom providers fell in doubt.

WorldCom had leased a significant part of its capacity to both Internet service providers and telecom service providers. Many of these companies dwindled and entered bankruptcy starting in 2000. In mid-2000, Ebbers and WorldCom’s CFO, Scott Sullivan, advised Wall Street that earnings would fall below expectations. WorldCom’s costs were largely fixed—the firm had high operating leverage. With relatively small declines in revenue, earnings would decline a lot. In the third quarter of 2000, WorldCom was hit with \$685 million in write-offs as its customers defaulted on capacity lease commitments. In October 2000, Sullivan pressured three midlevel accounting managers in WorldCom to draw on reserve accounts set aside

for other purposes to cover operating expenses—this would reduce the reported operating expenses and increase profits. The transfer violated rules regarding the independence and purpose of reserve accounts. The three accounting managers acquiesced and later regretted their action. They considered resigning but were persuaded to remain with the firm through its earnings crisis. They hoped or believed that a turnaround in the firm's business would make this action an exception.

Conditions worsened in the first quarter of 2001. Revenue fell further, producing a profit shortfall of \$771 million. Sullivan prevailed again on the three accounting managers to shift operating costs—this time to capital expenditure accounts. Again, the managers complied, this time backdating entries in the process. In the second, third, and fourth quarters of 2001, they transferred \$560 million, \$743 million, and \$941 million, respectively. In the first quarter of 2002, they transferred \$818 million.

The three accounting managers experienced deep emotional distress over their actions. When, in April 2002, they discovered that WorldCom's financial plan for 2002 implied that the transfers would continue to at least the end of the year, the three managers vowed to cease making transfers, and to look for new jobs. But inquiries by the SEC into the firm's suspiciously positive financial performance triggered an investigation by the firm's head of internal auditing. Feeling the heat of an investigation, the three met with representatives from the SEC, FBI, and U.S. Attorney's office on June 24, 2002. The next day, WorldCom's internal auditor disclosed to the SEC the discovery of \$3.8 billion in fraudulent accounting. On June 26, the SEC charged WorldCom with fraudulent accounting.

In addition to the \$3.8 billion fraud from reallocating operating expenses to reserves and capital expenditures, WorldCom shifted another \$7.2 billion to its MCI subsidiary, affecting the tracking stock on that entity.

From its peak in late 2000 until WorldCom filed for bankruptcy in July 2002, about \$180 billion of WorldCom's equity market value evaporated. In March 2003, WorldCom announced that it would write off \$79.8 billion in assets following an impairment analysis: \$45 billion of this arose from the impairment of goodwill.

The three accounting managers had hoped that they would be viewed simply as witnesses. On August 1, they were named by the U.S. Attorney's office as unindicted co-conspirators in the fraud. WorldCom fired them immediately. Unable to cope with the prospect of large legal bills for their defense, they pleaded guilty to securities fraud and conspiracy to commit fraud. The charges could carry a maximum of 15 years in prison.

Bernard Ebbers and Scott Sullivan, CEO and CFO respectively, were charged with fraud. A study later done by the bankruptcy examiner concluded that Ebbers played a role in inflating the firm's revenues. One example cited by the report was the firm's announcement of the acquisition of Intermedia Communications Inc. in February 2001 even before the WorldCom board had approved the deal—the firm's lawyers made it look as if the board had approved the deal by creating false minutes.

This case carries a number of implications for corporate executives, M&A professionals, and investors. First, fraud gets caught. Second, fraud is costly to companies, investors, and employees and damages investor confidence and trust. Third, fraud and earnings management share a common soil: a culture of aggressive

growth. Though growth is one of the foremost aims in business, a mentality of growth at any price can warp the thinking of honorable people. And fourth, the shields against fraud are a culture of integrity, strong governance, and strong financial monitoring.

Sarbanes-Oxley Act

President George W. Bush signed the Sarbanes-Oxley Act into law on July 30, 2002, citing the need to end “corporate corruption [that] . . . has struck at investor confidence, offending the conscience of our nation.” He said that SOA was one of “the most far-reaching reforms of American business practices” since the enactment of laws in the 1930s that regulated securities markets and practices. SOA had overwhelming legislative support, passing the Senate without a dissenting vote. The context for this legislation was a sense of alarm and outrage stemming from 22 major events of accounting irregularities by large corporations that were committed from 1998 to the signing of SOA.³¹

Yet, Bloomenthal (2002) writes that “the Act in some respects is poorly drafted, reflecting to some extent last-minute amendments . . . and revisions. . . . There are overlapping certification provisions. . . . Since [the Act] takes the form of an amendment to the criminal code, the [SEC] has no rulemaking authority notwithstanding it relates to the same periodic reports filed with the Commission. There are also overlapping provisions relating to a company’s internal controls.” (Pages xi, xii) Bloomenthal also noted possible unintended consequences arising from the Act’s prohibition on “personal loans” to corporate officers, vagueness about who can bring an action to enforce provisions against “misconduct” by corporate officers, the apparent application of the Act to events occurring before enactment, and the potential for private lawsuits under the Act.

The SOA is a bundle of individual legislative remedies reacting to the disclosures of alleged corporate earnings management and fraud. These include:

- ***Establishing the Public Company Accounting Oversight Board (PCAOB)***, which would be charged with overseeing the audit of public companies. Public accounting firms would need to register with PCAOB; any accountant not registered could not perform an audit of a public company. PCAOB would make accounting rules and periodically inspect auditing firms’ adherence to them. Finally, it would enforce compliance with SOA and with accounting rules and conduct disciplinary proceedings.
- ***Prohibiting auditors from providing ancillary services*** such as bookkeeping, consulting, corporate financial advisory services, and legal services. This sought to enhance auditor independence and to correct what was widely perceived as the role of nonaudit services in influencing the audit activities.
- ***Requiring public companies to appoint independent directors*** to audit committees within their boards of directors. These committees were charged with overseeing the work of public auditors.
- ***Requiring certification of financial reports by the CEO and CFO***. These officers must submit signed statements that they have reviewed the financial reports and that the reports did not contain any “untrue statement of a material fact or omit to state a material fact necessary in order to make the statements

made . . . not misleading.” Also, the officers would need to certify that internal controls exist to reveal “material information” each reporting period. It became illegal to “influence, coerce, manipulate, or mislead” a public auditor. Accounting restatements due to “misconduct” would trigger reimbursement by the CEO and CFO of any incentive compensation received in the previous 12 months, and of any profits realized from the sale of securities.

- **Prohibiting insider trading during periods of “blackout”** in pension funds, when pension investors are unable to trade.
- **Requiring enhanced financial disclosures by corporations.** These disclosures would include “all material correcting adjustments” identified by the public accounting firm and all material off-balance sheet transactions and obligations.
- **Prohibiting personal loans to corporate executives.**
- **Directing the SEC to adopt rules “reasonably designed to address conflicts of interest** that can arise when securities analysts recommend equity securities in research reports and public appearances.”
- **Authorizing an increased appropriation of funds to the SEC** to support enlarged activities.
- **Stiffening the fines and jail terms** as criminal penalties under the Exchange Act of 1934. Mail and wire fraud jail terms were increased from five years to 20 years. Penalties for willful violations of the Exchange Act or any rule under it were increased from 10 to 20 years and from \$1 million to \$5 million for a natural person (and from \$5 million to \$25 million for a corporation).

SUMMARY AND CONCLUSIONS

This chapter has reviewed the mechanics of purchase accounting in M&A and the larger context for accounting today. The chapter argues that financial accounting in M&A is not like an engineering problem with well-defined rules and relationships. Rather, it is a field laden with judgments and uncertain effects. Executives, analysts, and M&A deal practitioners should focus attention on eight aspects raised by this chapter:

1. Judgments in asset allocations, especially in determining intangible asset value and goodwill.
2. Judgments in choice of reporting unit.
3. Judgments in valuation that support asset allocation and impairment tests.
4. Scrutiny of the effect of accounting choices on earnings before and after the deal.
5. Trade-offs among aspects of deal design such as accounting, form of payment, price, and financing.
6. Avoidance of fraud.
7. Observance of the Sarbanes-Oxley Act and other laws.
8. The need to think like an investor.

Decisions in the area of financial accounting for M&A should be made with counsel of competent professional advice.

APPENDIX 16.1**Mechanics of Pooling-of-Interests Accounting**

Pooling accounting was prohibited for U.S. mergers beginning in 2001, and is of interest here mainly to understand historical accounting behavior and to compare with purchase accounting. (See Exhibit 16.10.) This method arose for use in special cases of a merger of equals where the companies were about the same size and where it was unclear who was buying whom. In these instances, purchase accounting seemed less appropriate. Over time, companies were successful in arguing that their transactions were almost mergers of equals, and eventually the size criterion was abandoned. Pooling accounting was available to any transaction that met certain regulatory rules.

Pooling simply adds the balance sheets and income statements of the two firms, line by line. No goodwill is created, thus reducing the penalty to reported earnings from goodwill amortization. Also, asset values are not restated. Under pooling, historical values are simply carried over to the new firm. With pooling accounting, anytime the buyer presents an income statement or a series of income statements for any past periods, those statements must be restated to reflect the results of the pooled entities. Thus, it permits an examination of trends over a historically consistent set of financial statements. This method was called “dirty pooling” by some critics because it improved³² the cosmetic appearance of transactions that were, in substance, purchases. In 1970, the Accounting Principles Board (APB) issued a famous opinion (Opinion 16) in which it limited the use of pooling of interests. Under the most prominent rules, pooling would be allowed only where:

- Target shareholders maintained a continuing ownership interest in the new firm. This test eliminated outright purchase transactions where the target shareholders departed.
- There would be no change in the basis for accounting for the target’s assets.
- The combining firms must have been autonomous entities and independent from each other for at least two years. “Independence” here is defined as less than a 10 percent intercorporate ownership. This test prevented treating as a pooling those acquisitions that began as purchases.
- Combination occurred in a single transaction or was completed in accordance with a specific deal within one year. This test prevented treating as a pooling those slow, creeping acquisitions over time that are in substance purchases.
- Buyer issued only voting common stock in exchange for substantially all (90 percent) of the voting common stock of the target. Contingent payments were not permitted. This test prohibited preferential forms of payment to target shareholders, and was consistent with the notion of combining of interests.
- Neither the buyer nor the target could change the equity interests of the common shareholders for the year prior to the transaction, and Newco was not allowed to repurchase shares or dispose of major assets for up to two years after the transaction. This rule prevented delayed cash payments to selling shareholders, or the exchange of assets for shares—either of those could be substantially purchases rather than true mergers with continuity of ownership.³³

EXHIBIT 10.10 Summary Comparison of Purchase and Pooling Accounting

	Pooling of Interests	Purchase Accounting
Transaction viewed as?	Combination of equals. Unclear who is buying whom.	A purchase of the target by the buyer. Target being viewed as just another asset being purchased. Assets and liabilities are received into the buyer's balance sheet at fair market value.
Record of payment?	Does not record what the buyer paid since the deal is a mere blending of the balance sheet items of firms. Suppresses the true cost of the acquisition. May present unrealistically low carrying value of assets; upon sale of assets, firm may book unrealistically large gains.	Records what the buyer paid.
Time perspective?	Backward-looking. No change in historical cost basis. No step-up in basis. No goodwill. Timing of the acquisition may matter.	Current-looking. Purchase price allocated on the basis of current market values. Possible step-up in basis. Goodwill possible but not amortized. Past does not matter. Timing of the deal does not matter—impact of the target starts from date of purchase.
Effect on net income compared to sum of two firms?	Net income is unchanged.	Net income may be lower, because asset value increases, resulting from the merger/due to the merger, must be amortized.
Effect on cash flow (net income plus noncash charges)?	Cash flows are unchanged compared to the sum of the two firms.	Cash flows are higher or unchanged, to the extent of the tax deductibility of the increased asset amortization.
Effect on leverage?	No change in leverage beyond a blend of the two capital structures.	Leverage is lower, if stock is used to acquire, leverage is higher if cash is used to acquire, and financed either from unused debt capacity or excess cash.

(Continued)

EXHIBIT 18.10 (Continued)

	Pooling of Interests	Purchase Accounting
Effect on historical financial results?	Requires historical restatement for all years presented. May imply credit to buyer's management for the target's prior financial performance.	Requires no historical restatement. Pre- and postacquisition financial results are difficult to compare. Buyer's statements reflect target only from date of transaction. Possible illusion of growth.
Effect on postmerger restructuring?	Limits asset sales and stock repurchases for two years.	No limitation.
Effect on terms of payment?	Requires stock-for-stock transaction.	No limitation.
Effect on assets?	No change.	Higher to the extent of difference between purchase price and target's historical book value.
Effect on bid premiums?	Associated with higher bid premiums.	Associated with lower bid premiums.
Effect on buyer's stock price?	Little stock price reaction.	Positive stock price reaction, perhaps reflecting higher cash flow.

Poolings as a percentage of all transactions increased from 14 percent in 1994 to 22.9 percent in 1996, on the basis of the dollar value of transactions. On the basis of numbers of transactions, poolings represented 7.8 percent in 1994 and 9.1 percent in 1996.³⁴ This percentage shows a tendency to vary with capital market conditions, having reached a peak of nearly 40 percent for poolings in 1969 and fallen since then.

The former rules regarding pooling accounting for mergers and acquisitions were set forth in APB Opinions 16 and 17, published in 1970. Practice has changed significantly since that time and accountants, analysts, managers, and even politicians have clamored for change:

*The present rules . . . are approaching their twentieth anniversary—an event many believe should never occur. Most recognize that these rules were a convenient compromise, not rules of reason and logic. Their survival is only at the cost of shortcomings in financial statement presentation.*³⁵

Globalization of business has been one important driver for change. Across the industrialized world, there has been a wide variety of acceptable accounting methods for business combinations. In most countries outside the United States, the use of pooling accounting was severely limited and was applied only to true mergers of equals. In many countries, it was acceptable to write off goodwill at the time of the transaction. Other countries have agreed that goodwill could be

allowed to remain on the balance sheet indefinitely, subject only to an ongoing challenge to realizability. Still other countries have required that goodwill be amortized to income over very short periods. Under pressure from the securities regulators around the world, the accounting profession sought to establish one set of accounting standards that would be followed throughout the world. The International Accounting Standards Committee (IASC) completed its set of core standards, including a standard on business combinations. That new standard limits the use of pooling accounting to true mergers of equals, where there is no obvious buyer, and requires that goodwill from purchases be written off over no more than 20 years.

The U.S. Securities and Exchange Commission was one of the regulatory bodies that pushed for the IASC core standards program and made clear its dislike of pooling accounting—if for no other reason than that its staff spent a disproportionate amount of time working with registrants who wanted to qualify a transaction for pooling accounting. The implementation rules for poolings had become very complex. That concern and the establishment of a new standard on business combinations by the IASC have pushed the FASB to reconsider the status of APB Opinions 16 and 17. Although the business community remained divided, the call for greater comparability across firms and transactions was impetus for changing the rules.

Finally, financial innovation required modification in the rules. New securities and more complex forms of combination were difficult to handle within the existing framework. In August 1996, the FASB agreed to add a special project to its agenda to address the subject of accounting for business combinations and intangible assets. On September 7, 1999, the FASB issued its exposure draft of the new accounting standards for business combinations. These new standards, FAS 141 and 142, became effective for M&A deals consummated after June 30, 2001, and eliminated pooling accounting for mergers.

NOTES

1. The discussion in this section is adapted from FAS 141 and 142.
2. In essence, pooling combines two firms at their *historical*, not exchanged, values. This led to a number of abuses and was derided as “dirty” pooling. In contrast, purchase accounting records the combination on the basis of exchanged values.
3. The FMV of goodwill is determined by allocating the purchase price of a target company across its tangible and intangible assets; what is left over is goodwill. The FMV of tangible or intangible assets is the amount at which they could be sold in a transaction between willing parties.
4. Goodwill cannot be assigned to any specific intangible asset such as a trademark or patent, but is apparent in the loyal customer franchise a company may enjoy. Examples of this franchise with an indefinite life would be Disney in theme parks and animated films, Johnson & Johnson in personal health-care products, and Microsoft in software.
5. The test for impairment should also be made at times other than annually—for instance, after a significant adverse change in business.

6. Goodwill can also be negative, where the purchase price is less than FMV of the target's identifiable assets.
7. The focus of this chapter is on *financial reporting*. The impact of goodwill from a tax accounting standpoint may be different. For tax accounting, goodwill arising from an *asset purchase* must be amortized over 15 years and recognized as a deductible expense in computing the annual tax payment. But if the transaction is a *stock purchase*, goodwill is not deductible unless the buyer takes a Section 338 election. A Section 338 election occurs in an acquisition of stock where the buyer elects to have it treated for tax purposes like an acquisition of assets, where the basis of the target firm is stepped up and depreciated or amortized. See Chapter 19 for more on the tax aspects of acquisitions.
8. To focus on economic efficiency is to measure value creation with such indicators as net present value and economic value added (EVA); these are economic, rather than accounting, measures of performance. The change in the value of reported results such as assets, sales, and earnings is a poor measure of value creation because historical accounting values may not reflect economic reality. Also, bigger is not necessarily better. Even the change in earnings per share is a poor measure of value creation, for reasons explained in Chapter 17.
9. Governments often retain a "golden share" when state-owned enterprises are privatized. These single shares grant veto rights over large asset sales, major strategic changes, and changes in control of the enterprise.
10. Standstill agreements commit buyers not to acquire further shares (or even vote their shares), usually in return for cooperation by the target in providing confidential information about the target.
11. In dual-class share structures, common stock is subdivided into senior (high voting power) and junior (low voting power) shares. In these cases it may be possible for a shareholder to hold a minority of shares outstanding, but a majority of votes.
12. This assumes equivalent tax rates for both target and buyer and positive net income for both.
13. Scholarly research is at best of mixed agreement with this view; some research is hostile to it. In efficient capital markets, investors will "see through" reported EPS and will focus on cash flow, which better reflects economic reality. Investors like Warren Buffett claim to do just that (see Chapter 9). Still, other research (Andrade 1999; Dechow 1994) finds that changes in EPS help to explain variations in stock prices. Some of this research is summarized in a later section of this chapter. My own view is that change in EPS is important mainly as a signal of real economic phenomena, useful but imperfect and susceptible to earnings manipulation. My recommendation to executives and M&A practitioners is to view EPS with skepticism and caution.
14. As Chapter 9 discusses, "cash flow" has many possible definitions. The "cash EPS" presented in this chapter—Cash EPS = (Net income + Goodwill amortization)/Number of shares—is emerging as a measure of the operating health of the firm, untainted by the impact of purchase accounting goodwill. Ideally, one would also examine such measures as free cash flow and residual cash flow—these other measures better approximate the economic reality of flows of cash to investors.

15. The details of this example may be found in spreadsheet form in "Purchase Accounting.xls" on the CD-ROM.
16. For brevity the figures are rounded to whole numbers in the discussion of this example.
17. Again, the calculation is: $\text{Equity cost} + \text{Liabilities assumed} = \text{Purchase price}$; $\text{purchase price} - \text{FMV of identifiable assets} = \text{Goodwill}$ or $\$2,000 \text{ equity} + \$946 \text{ debt} = \$2,946 \text{ purchase price}$; $\$2,946 - \$2,475 = \$471$.
18. Note that once the number of shares to be given in consideration is agreed upon in a stock purchase deal and the purchase price is established, the buyer may wind up paying (and the seller receiving) a higher or lower purchase price because of changes in the market value of the buyer's shares. The two companies may in this situation agree to put a cap, floor, or collar on the price of the buyer's stock, outside of which the deal will be terminated.
19. The purchase accounting cases show clearly the impact of the step-up in basis of gross fixed assets, but the case glosses over the potential impact of a step-up in the value of current assets. As more costly inventory flows through the income statement, cost of goods sold will rise.
20. Managers may benefit from EPS enhancement games if their incentive compensation is tied to EPS growth. Some shareholders might benefit at the expense of others if sophisticated shareholders (who recognize the fruitlessness of EPS manipulation) sell their shares at high prices to other shareholders who are fooled by EPS figures.
21. Steven Lipin, "Telxon Is Probed by the SEC," *Wall Street Journal*, February 22, 1999.
22. Tyco International relocated its headquarters from New Hampshire to Bermuda to reduce tax expense.
23. This study was reported in Elizabeth MacDonald, "FASB Weighs Killing Merger Write-Off," *Wall Street Journal*, February 23, 1999.
24. Quoted in Kara Swisher and Leslie Scism, "Internet Firm's Fast Write-Off Draws Notice," *Wall Street Journal*, August 27, 1998, page C1.
25. For this to work most credibly, there needs to be some genuine growth early in the buyer's history on which an efficient stock market could base expectations of future gains.
26. Cited in Arya et al. (2003), page 112.
27. For reviews of academic research on earnings management, see Schipper (1989), Healey and Wahlen (1999), and Watts (2003). Marquardt and Wiedman (2002) summarize costs of earnings management to firms. Significant negative abnormal returns to shareholders are associated with announcements of SEC enforcement actions, earnings restatements, shareholder litigation for securities fraud, and qualified audit reports.
28. See Shivakumar (2000), Teoh, Welch, and Wong (1998a, 1998b), Teoh, Wong, and Rao (1998), and Rangan (1998).
29. These areas included reserves (general and restructuring), revenue recognition, business combinations, non-R&D intangibles, fixed assets, investments, leases, accounting changes, prior period adjustments, compensation, taxes, consolidations and the equity or cost method of accounting, transfers of receivables, cash flows and working capital, long-term debt, pensions and other postretirement

benefits, segment reporting, R&D, foreign currency, EPS, related party disclosures, and nonmonetary transactions.

30. The facts on which this case is based were drawn from Pulliam (2003), Blumenstein and Pulliam (2003), Blumenstein and Solomon (2003), and Solomon (2003).
31. The companies and their alleged or admitted accounting issues were Adelphia (loans and looting), Bristol-Myers (improper inflation of revenues through use of sales incentives), CMS Energy (overstatement of revenues through "round trip" energy trades), Computer Associates (inflation of revenues), Dynegy (artificial increase of cash flow), Elan (use of off-balance sheet entities), Enron (inflation of earnings and use of off-balance sheet entities), Global Crossing (artificial inflation of revenues), Halliburton (revenue recognition), Kmart (accounting for vendor allowances), Lucent Technologies (revenue accounting and vendor financing), Merck (revenue recognition), MicroStrategy (backdating of sales contracts), Network Associates (revenue and expense recognition), PNC Financial Services (accounting for transfer of loans), Qwest (revenue inflation), Reliance Resources (revenue inflation through "round trip" energy trades), Rite Aid (inflation of earnings), Tyco International (improper use of "cookie jar" reserves and acquisition accounting), Vivendi Universal (withholding information about liquidity troubles), WorldCom (revenue and expense recognition), Xerox (revenue and earnings inflation). These cases and their points of controversy are summarized in Bloomenthal (2002), pages App. E-1 and E-2.
32. The "improvement" occurred because pooling booked acquisitions, not at their actual purchase price, but at the typically lower historical book values.
33. This rule was extended following the SEC's rejection of First Bank System, Inc.'s attempted takeover of First Interstate Bancorp on the basis that FBS announced plans to buy back shares as part of the deal. The SEC issued a bulletin in March 1996, following the rejection, restricting a pooler's ability to make major stock repurchases for up to 24 months surrounding a transaction. In response, some companies limited stock buyback programs in order to preserve their future ability to pool.
34. These are the findings of Securities Data Company as reported in Ian Springsteel, "Say Goodbye to Pooling," *CFO Magazine*, February 1997.
35. Richard Dieter, "Is Now the Time to Revisit Accounting for Business Combinations?," *CPA Journal Online*, July 1989.