Goodwill Amortization and the Usefulness of Earnings

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This study provides evidence of the effect of goodwill amortization on the usefulness of earnings data as an indicator of share value for a large sample of publicly traded companies over the 1993–98 period. This issue is of special interest because the Financial Accounting Standards Board recently adopted new accounting standards that eliminate the systematic amortization of goodwill in favor of a requirement to review goodwill for impairment when circumstances warrant. We found that earnings before goodwill amortization explain significantly more of the observed distribution of share prices than earnings after goodwill amortization and that when share valuations are based on earnings alone, goodwill amortization simply adds noise to the measure. These results suggest that eliminating goodwill amortization from the computation of net income will not reduce its usefulness to investors and analysts as a summary indicator of share value.

We examined whether excluding goodwill amortization from the computation of earnings increases the usefulness of earnings data to investors and analysts as an indicator of share value. This question is of particular interest in light of recent changes in the accounting rules for business combinations and for purchased goodwill acquired in business combinations. Statement of Financial Accounting Standards No. 141 (SFAS 141), *Business Combinations,* eliminates pooling-of-interests accounting for business combinations and requires purchase accounting for all transactions (FASB 2001a). As a result, acquiring companies will record purchased goodwill in connection with virtually all acquisitions, which will greatly increase the amount of purchased goodwill reported on corporate balance sheets. At the same time, however, Statement of Financial Accounting Standards No. 142 (SFAS 142), *Goodwill and Other Intangible Assets,* ends the long-standing requirement that purchased goodwill be systematically amortized against revenues over the years following an acquisi-

tion, thus eliminating this controversial expense from corporate income statements (FASB 2001b).

How will the Financial Accounting Standard Board's (FASB's) decision to eliminate goodwill amortization from the computation of reported earnings affect the usefulness of earnings as a source of information for investors and analysts? We provide evidence on this issue for a large sample of companies from the 1993–98 period. For each year in the sample period, we estimated cross-sectional regressions of share price on per share earnings *before* goodwill amortization and on per share earnings *after* goodwill amortization. To assess the relative usefulness of including or excluding goodwill amortization in the computation of net income, we then compared the R^2s from these regressions, which quantify the proportion of variation in prices "explained" by each measure.

Background

Goodwill, the difference between the value of a company's ownership interest and the fair value of its identifiable net assets, represents competitive advantages that are expected to enable the company to generate earnings in excess of a "normal" return on investment. Goodwill may be developed internally by building customer loyalty, developing human resources, or using assets more efficiently than competitors. Or goodwill may be purchased "whole" when one company acquires another.

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Previous Accounting Rules for Goodwill.
Prior to the recent changes adopted by the FASB, the accounting treatment for goodwill was governed by Accounting Principles Board Opinion No. 17, *Intangible Assets* (AICPA 1970b). Under APB 17, goodwill that was developed internally was not recognized as an asset and piecemeal expenditures made to develop, maintain, or restore internally developed goodwill were expensed when incurred. In contrast, the cost of goodwill acquired as a result of a business combination was recognized as an asset by the acquiring company, provided that the acquisition was accounted for using purchase accounting. APB 17 dictated that this asset, like other intangibles, be amortized over "the periods expected to be benefited" up to a maximum of 40 years. This requirement reflected the view that future benefits associated with purchased goodwill were unlikely to persist indefinitely and that requiring systematic amortization over a period not to exceed 40 years gave preparers sufficient flexibility to reflect consumption of these benefits in an economically meaningful way.

Because goodwill was recognized as an asset only in connection with acquisitions that were accounted for using purchase accounting, the incidence of goodwill in corporate financial statements was affected by rules governing the accounting for business combinations. Under APB Opinion No. 16, *Business Combinations* (AICPA 1970a), adopted at the same time as APB 17, most acquisitions were accounted for as "purchases." Certain stock-for-stock transactions that met a number of specific requirements were accounted for, however, as poolings of interests. Under purchase accounting, the acquiring company recorded the identifiable assets and liabilities of the acquired company at their estimated fair values and recognized the remainder of the acquisition price as purchased goodwill. Under pooling-of-interests accounting, the financial statements of the new entity were constructed by summing the assets, liabilities, equity, revenues, and expenses of the combining companies, measured at their preacquisition book values, and goodwill was not recognized.

Criticism of Previous Goodwill Accounting Rules. APB 16 and APB 17 were controversial when originally adopted in 1970, and the level of dissatisfaction with these accounting standards increased over time—in large part because of a shift in the economy from manufacturing to "knowledge-based" activities and a consequent increase in the relative importance of goodwill as a component of firm value. In many recent acquisitions, value attributable to goodwill has been very large, often two-thirds or more of the total acquisition price (Ayers, Lefanowicz, and Robinson 2000).

Preparers of financial statements were particularly critical of the APB 17 amortization requirement because goodwill amortization had the potential to severely reduce an acquirer's reported earnings for many years. Some companies tried to avoid this earnings reduction by structuring acquisitions to qualify for pooling-of-interests accounting under APB 16. When purchase accounting could not be avoided, some companies, arguing that goodwill amortization is an arbitrary noncash charge that is not useful for assessing performance, emphasized earnings before goodwill amortization in their earnings releases and reports to shareholders.[1]

There was evidence that analysts and investors agreed with this view. In its assessment of the state of financial reporting, the Association for Investment Management and Research argued that accounting earnings would be more comparable among companies if goodwill was written off at the time of acquisition, thereby excluding goodwill amortization from the income statement (AIMR 1993). More recently, First Call Corporation, a major marketer of investment information, began providing forecasts of earnings before goodwill amortization for many companies (Leefeldt 1999).[2]

In spite of this continuing controversy, little research has been conducted on how pre-SFAS 142 accounting rules for goodwill affected the usefulness of financial statements. In a study of goodwill disclosure practice, Duvall, Jennings, Robinson, and Thompson (1992) found that many companies did not explicitly disclose goodwill amortization and that for these companies, estimating the effect of goodwill amortization on net income was difficult. Jennings, Robinson, Thompson, and Duvall (1996) provided evidence that stock prices behave as if investors regarded purchased goodwill as an asset, but they found only limited evidence about whether investors view goodwill amortization as a useful measure of resource consumption.[3] Finally, evidence from an experimental study by Hopkins, Houston, and Peters (2000) suggests that goodwill amortization may negatively affect analysts' price judgments but that this effect may be mitigated when goodwill amortization is reported explicitly on the face of the income statement. On the whole, these studies provide little direct evidence about whether goodwill amortization enhanced or detracted from the usefulness of earnings.[4]

New Accounting Rules for Goodwill. In response to increasing dissatisfaction with APB 16 and APB 17, the FASB announced in 1996 that it would reconsider both standards. After five years

of deliberation that included two exposure drafts, public hearings, field studies, and outreach to participants in the financial reporting process, the FASB issued two new accounting standards—SFAS 141, *Business Combinations*, and SFAS 142, *Goodwill and Other Intangible Assets.*

These two standards changed existing practice in two important ways. First, SFAS 141 requires purchase accounting for all business combinations, thus eliminating pooling-of-interests accounting completely. Second, SFAS 142 prohibits companies from systematically amortizing purchased goodwill, whether the goodwill was acquired in a business combination consummated before or after adoption of the standard.[5] To the extent that acquisition activity continues at rates experienced in the recent past, these standards are likely to sharply increase the amount of goodwill reported on corporate balance sheets. Data in Ayers et al. suggest that about 30 percent (43 percent) of the number (dollar value) of acquisitions completed by publicly held companies during the 1992–97 period were accounted for as poolings. If purchase accounting had been used for these acquisitions, substantial amounts of goodwill would have been recognized.

The Study

The FASB's decision to prohibit the systematic amortization of purchased goodwill raises the issue of whether the new rules might increase the usefulness of earnings. On the one hand, if goodwill amortization recognized under previous rules was essentially noise, as many critics of those rules maintained, the recent change should increase the usefulness of earnings. On the other hand, if goodwill amortization was actually a useful surrogate for decline in the value of goodwill assets, the recent change might make earnings information less useful to investors. To address this issue, we used data from the 1990s to study the relative usefulness as indicators of share value of two alternative earnings measures—one that includes goodwill amortization and one that excludes goodwill amortization.

Research Design. To provide evidence about the relative usefulness of the alternative measures of earnings, we compared their ability to explain observed share prices. Specifically, we estimated the following cross-sectional regressions for each year from 1993 through 1998:

$$P_i = a_0 + a_1 EPSBGW_i + e_{1i} \qquad (1)$$

and

$$P_i = b_0 + b_1 EPSAGW_i + e_{2i}, \qquad (2)$$

where P_i is company i's closing stock price on the last day of the third month after the end of its fiscal year (we chose this valuation date to ensure that current financial statements were publicly available for virtually all companies in the sample), $EPSBGW_i$ is earnings per share from continuing operations before goodwill amortization, and $EPSAGW_i$ is earnings per share from continuing operations after goodwill amortization.[6] To assess whether one of these alternative earnings measures is more useful as an indicator of share value, we conducted statistical tests comparing the R^2 (percentage of explained variation) for Regression 1 with the R^2 for Regression 2.

This research approach was based on two important assumptions. The first is that the usefulness of accounting earnings information lies in its ability to serve as an "indicator of value" that facilitates cross-company comparisons, as discussed in Black (1980, 1993) and Ohlson and Penman (1992). This assumption reflects the common practice of valuing shares (at least to a first approximation) by "capitalizing" reported earnings or some transformation of reported earnings (e.g., earnings adjusted for goodwill amortization). The second assumption is that security prices reflect all public data that are relevant for valuing equity shares. If this condition is met, security prices are a valuable benchmark for comparing alternative earnings measures for their relative usefulness as indicators of value. Based on these assumptions, the two versions of earnings we examined can be viewed as competing indicators of value and the version that best explains the observed distribution of prices (has the highest adjusted R^2) can be viewed as the more useful version.

The Sample. The procedures we followed to select the sample and the resulting numbers are as follows. We began with a preliminary sample of 32,626 company-years with data in Standard & Poor's Compustat database for any of the years between 1993 and 1998. All these observations were for NYSE-, Amex-, or Nasdaq-listed corporations from the manufacturing, mining, retailing, and non-financial service sectors.[7] To focus our analysis on companies with reported goodwill, we eliminated 27,841 observations (85.3 percent of the initial sample) because Compustat reported the companies' goodwill assets as zero or missing. We eliminated an additional 1,354 observations for which income from continuing operations was negative.[8] After these deletions, the resulting sample consisted of 3,431 company-years, with yearly subsamples ranging in size from 501 (for 1993) to 645 (for 1998).

The Compustat database includes data items for goodwill, intangible assets, and intangibles amortization but does not separately report goodwill amortization. Thus, we had to use available data to estimate goodwill amortization for each sample observation. Following our estimation procedures, which are described in detail in Appendix A, we were able to estimate goodwill amortization for all but 513 company-years, leaving a usable sample of 2,918 observations.[9]

For the observations in our final sample, **Table 1** provides descriptive statistics on company size, materiality of net goodwill, and materiality of goodwill amortization. The distributions of two measures of company size, market value of common equity (MVE) and total assets, suggest that the sample observations were not unusually concentrated among very large or very small companies. The distributions of goodwill/market capitalization and goodwill/total assets, both of which are about 9 percent at the median, indicate that goodwill was a material balance sheet item for a large portion of our sample observations. Similarly, the distribution of goodwill amortization/net income (8 percent at the median) indicates that amortization expense was a material income statement item for a large portion of the sample. The last row of Table 1 reports the distribution of goodwill amortization/ goodwill. This ratio is 0.04 for the median observation in our sample, suggesting that (net) goodwill had a remaining life of 25 years at the median and that the original amortization period for purchased goodwill was likely to be much greater than 25 years for the typical sample observation.[10]

R^2 Comparisons

Table 2 reports year-by-year estimation results for Regression 1 based on earnings before goodwill amortization (in Panel A) and Regression 2 based on earnings after goodwill amortization (in Panel B). For each of the six years, the table includes coefficient estimates, t-statistics, and R^2s for the regressions. The table also shows estimation results for a "fixed-year-effects" version of each regression that pooled all sample observations but allowed separate intercept and slope coefficients for each year of the study period. By construction, coefficient estimates from the fixed-year-effects regressions were identical to those from the year-by-year regressions, and their averages, reported in Table 2, can be viewed as a summary of the year-by-year results. The related test statistics are for the null hypothesis that the average intercept or slope coefficient across the six years of our study period is zero.[11]

Not surprisingly, the Table 2 results indicate a strong positive relationship between share price and per share earnings for both measures. The earnings slope coefficients are similar in magnitude to those reported in many other studies, and all are significant at or below the 1 percent confidence level. The R^2s for these regressions, which vary from a low of 0.447 (for *EPSAGW* in 1998) to a high of 0.694 (for *EPSBGW* in 1993), indicate that, regardless of the measure used, accounting earnings explain a substantial portion of the cross-sectional distribution of prices.

Our primary interest, however, was in comparing the extent to which the two competing earnings measures explain the distribution of share prices. If reported goodwill amortization enhances the usefulness of earnings, then *EPSAGW* should explain more of the observed cross-section of prices than *EPSBGW* and the R^2 for Regression 2 should be greater than that for Regression 1. If reported goodwill amortization is irrelevant for valuation, then the R^2 for Regression 1 should be greater than the R^2 for Regression 2.

Table 1. Distribution of Descriptive Variables for Final Sample by Percentile, 1993–98

Variable	5	10	25	50	75	90	95
MVE ($ millions)	9.7	16.9	49.0	159.5	675.6	2,776.4	6,670.4
Total assets ($ millions)	11.2	19.0	51.7	162.7	660.7	2,532.2	6,349.6
Goodwill/Total assets	0.005	0.012	0.035	0.087	0.195	0.321	0.419
Goodwill/MVE	0.004	0.008	0.028	0.087	0.223	0.505	0.802
Goodwill amortization/Income[a]	0.005	0.011	0.028	0.078	0.194	0.469	0.885
Goodwill amortization/Goodwill	0.015	0.022	0.029	0.041	0.076	0.155	0.263

[a]Net income from continuing operations.

Table 2. Cross-Sectional Regressions of Share Price on per Share Earnings before and after Goodwill Amortization, 1993–98

A. Earnings before goodwill amortization, $P = a_0 + a_1 \text{EPSBGW} + e_1$

Year	a_0	$t(a_0)$	a_1	$t(a_1)$	R^2
1993	2.82	(5.24)	14.53	(26.95)	0.694
1994	4.21	(6.65)	11.50	(17.11)	0.626
1995	4.82	(7.81)	11.89	(18.04)	0.631
1996	5.54	(9.69)	11.81	(22.14)	0.590
1997	5.90	(9.65)	14.43	(25.36)	0.623
1998	4.95	(7.29)	11.08	(16.98)	0.470
Fixed-year effects	4.71	(18.90)	12.54	(50.61)	0.604

B. Earnings after goodwill amortization, $P = b_0 + b_1 \text{EPSAGW} + e_2$

Year	b_0	$t(b_0)$	b_1	$t(b_1)$	R^2
1993	3.76	(6.40)	15.32	(24.23)	0.657
1994	4.86	(7.24)	12.00	(15.26)	0.608
1995	5.31	(8.60)	12.60	(16.95)	0.619
1996	6.16	(10.59)	12.34	(20.30)	0.577
1997	6.61	(10.90)	15.20	(24.49)	0.602
1998	5.53	(7.83)	11.89	(16.26)	0.447
Fixed-year effects	5.37	(20.88)	13.23	(46.92)	0.584

Note: All *t*-statistics are based on White's (1980) heteroscedasticity-consistent covariance estimator.

Table 3 compares the explanatory power of Regression 1 with the explanatory power of Regression 2. For each pair of year-by-year regressions and for the pooled fixed-year-effects regressions, Table 3 reports R^2 values, their difference, and a Z-statistic based on Vuong's (1989) likelihood ratio test for equivalence of explanatory power in nonnested models.[12] This statistic, which has a unit normal distribution under the null hypothesis of equal explanatory power, provides a means of assessing the likelihood that observed R^2 differences are simply the result of chance.

The comparisons in Table 3 indicate that earnings before goodwill amortization explain a larger fraction of the cross-sectional distribution of share prices than earnings after goodwill amortization in each of the six years we examined. In the year-by-year regressions, the R^2s for Regression 1 exceed those for Regression 2 by amounts ranging from 0.012 to 0.037. For the pooled fixed-year-effects regressions, based on the sample as a whole, the difference is 0.020. Moreover, all of these R^2 differences are statistically significant at conventional confidence levels. These results suggest strongly that data on earnings before goodwill amortization

Table 3. Comparison of R^2s for Regressions, 1993–98

Year	N	R^2 before Goodwill Amortization	R^2 after Goodwill Amortization	R^2 Difference	Z
1993	355	0.694	0.657	0.037	2.30
1994	440	0.626	0.608	0.018	2.38
1995	464	0.631	0.619	0.012	1.92
1996	529	0.590	0.577	0.013	2.00
1997	550	0.623	0.602	0.021	2.95
1998	469	0.470	0.447	0.023	2.36
Fixed-year effects	2,807	0.604	0.584	0.020	5.59

are more useful than data on reported earnings (which include goodwill amortization) as a summary indicator of share values.

Further Evidence

Is goodwill amortization of *any* use in company valuation? One explanation for the results reported in Tables 2 and 3 is that goodwill amortization is not related to company performance, as many of its critics suggest, and that investors "back out" this component of earnings, in effect, by assigning it a valuation multiple of zero. A second possibility is that goodwill amortization is priced by investors at a different, but nonzero, valuation multiple. In this case, information contained in both earnings before goodwill amortization and goodwill amortization may be lost when the two components of reported earnings are combined, which would produce the smaller explanatory power for reported earnings shown in Table 3.

To provide direct evidence as to whether goodwill amortization contains any value-relevant information beyond that contained in earnings before goodwill amortization, we estimated the following regression for each year of the 1993–98 period and for the sample in the pooled fixed-year-effects form:

$$P_i = c_0 + c_1 EPSBGW_i + c_2 GWA_i + e_{3i}, \qquad (3)$$

where GWA_i is per share goodwill amortization. If goodwill amortization contains incremental value-relevant information, the estimated slope coefficient for GWA in Regression 3 should be significantly negative. In contrast, if goodwill amortization is unrelated to company performance, the estimated slope coefficient for GWA in Regression 3 will not differ significantly from zero.

Table 4 reports estimation results for Regression 3, including the coefficient estimates for the year-by-year and pooled fixed-year-effects regressions, *t*-statistics, and R^2s. The year-by-year and fixed-year-effects coefficient estimates for GWA are all positive and rather small, varying between 0.29 and 3.58, in relation to coefficient estimates for $EPSBGW$, and none differs significantly from zero. This outcome suggests that, after earnings before goodwill amortization are taken into account, goodwill amortization does not contain information that is useful for assessing share prices.[13]

These results can also be viewed from the standpoint of comparing the R^2s from the three regressions. The R^2s reported in Table 4 for Equation 3 are virtually identical to the corresponding R^2s for Equation 1 reported in Panel A of Table 2, and the associated Z-statistics (not reported) were nearly zero in all cases. This result indicates that the usefulness of earnings information is the same whether goodwill amortization is excluded from income (Equation 1) or disaggregated from the remainder of income (Equation 3). In contrast, the comparison that was presented in Table 3 indicates that significant information is lost when goodwill amortization is combined with the remainder of income. Overall, these findings indicate that goodwill amortization is a source of noise that reduces the usefulness of earnings when it is combined with earnings before goodwill amortization.

Conclusion

The FASB's recently adopted accounting standards for business combinations will both increase the amount of purchased goodwill on corporate balance sheets and eliminate the systematic amortization of goodwill on corporate income statements.

Table 4. Cross-Sectional Disaggregated Regressions of Share Price on per Share Earnings before Goodwill Amortization and per Share Goodwill Amortization, 1993–98
($P = c_0 + c_1 EPSBGW + c_2 GWA + e_3$)

Year	c_0	$t(c_0)$	c_1	$t(c_1)$	c_2	$t(c_2)$	R^2
1993	2.78	(5.21)	14.30	(22.41)	2.38	(0.78)	0.693
1994	4.20	(6.85)	11.48	(15.08)	0.33	(0.11)	0.625
1995	4.81	(7.78)	11.85	(15.96)	0.59	(0.17)	0.631
1996	5.49	(9.62)	11.70	(19.15)	1.78	(0.48)	0.590
1997	5.83	(9.52)	14.15	(21.72)	3.58	(1.01)	0.623
1998	4.95	(7.27)	11.04	(14.21)	0.29	(0.08)	0.469
Fixed-year effects	4.68	(18.89)	12.42	(43.46)	1.49	(1.08)	0.604

Note: All *t*-statistics are based on White's heteroscedasticity-consistent covariance estimator.

We examined the effect of previously recorded goodwill amortization on the usefulness of earnings as a basis for valuing shares. The evidence indicates the potential effect of the new accounting rules on the usefulness of earnings.

For a large sample of publicly traded companies that reported goodwill assets in the 1993–98 period, we found that earnings *before* goodwill amortization explain significantly more of the cross-sectional variation in share prices than earnings *after* goodwill amortization. Further analysis provided evidence that, even when disaggregated from the remainder of reported earnings, goodwill amortization provides no explanatory power for observed prices beyond that of earnings before goodwill amortization. Overall, these results indicate that when investors approximate share value by capitalizing accounting earnings, perhaps as a prelude to further analysis, the goodwill amortization component of reported earnings can best be viewed as a source of noise. Thus, excluding goodwill amortization from corporate income statements under the new rules will not reduce the usefulness of earnings but, rather, may eliminate a source of noise in earnings as measured under previous standards.

Appendix A. Estimating Goodwill Amortization

In this appendix, we summarize the procedures we followed for using available data in the Compustat database (goodwill, intangible assets, and intangibles amortization) to estimate goodwill amortization. For each observation, we followed this sequence of steps to estimate goodwill amortization:

1. If Compustat reported equal amounts for goodwill and intangible assets, we assumed that all intangibles were goodwill and that goodwill amortization equaled intangibles amortization. This circumstance occurred for 2,157 (63 percent) of the company-years in our sample.[14]
2. If Compustat reported both goodwill assets and intangibles amortization for a given year but also reported intangible assets as zero or missing, we assumed that all intangibles were goodwill and that goodwill amortization equaled intangibles amortization. This circumstance occurred for 136 (4 percent) of the company-years in our sample.[15]
3. If Compustat reported purchased goodwill that exceeded 90 percent of intangible assets, we assumed that goodwill and intangibles were being amortized at the same rate and set goodwill amortization equal to intangibles amortization multiplied by the ratio of purchased goodwill to intangible assets. This circumstance occurred for 413 (12 percent) of the company-years in our sample.
4. If Compustat reported that current-period purchased goodwill was less than 90 percent of intangible assets *and* that purchased goodwill for the current year was more than 90 percent but less than 100 percent of purchased goodwill for the prior year *and* if the change in goodwill assets during the year was less than intangibles amortization, we estimated goodwill amortization to be the change in goodwill during the year. We did not allow goodwill to decline by more than 10 percent in this step in order to avoid including large write-offs of goodwill or sales of previous acquisitions. We estimated goodwill amortization in this way for 212 (6 percent) of the company-years in our sample.

We were not able to estimate goodwill amortization by any of these procedures for 513 (15 percent) of the company-years in our sample. For these observations, current-period goodwill assets were less than 90 percent of intangible assets *and* either (1) the data item for goodwill assets for the previous year was missing (199 observations), or (2) goodwill assets increased during the year (207 observations), or (3) goodwill assets decreased by more than 10 percent during the year (92 observations), or (4) goodwill assets decreased by less than 10 percent during the year but the decrease in goodwill was greater than intangibles amortization for the year (15 observations).

Notes

1. For example, the following quote appeared in an Emerson Electric press release (dated November 2, 1999) announcing the company's fourth quarter earnings for fiscal 1999: "It appears that the pooling form of accounting for mergers and acquisitions will be eliminated soon. Should this occur, we anticipate investors will gravitate toward measures more indicative of cash operating performance, such as earnings per share excluding goodwill amortization. For the year, Emerson's earnings per share excluding goodwill amortization increased 9 percent, from $2.99 in 1998 to $3.27. We will report this metric going forward."

2. In private correspondence, staff members at First Call indicated that in August 2000, all forecasts for about 200 companies and supplementary forecasts for about 90 additional companies were based on earnings before goodwill amortization.

3. Jennings et al. (1996) examined a restricted sample of companies with goodwill for the 1982–88 period. In their main analysis, they found weak evidence of a negative association between share prices and goodwill amortization across the seven years in their sample, but the results were not significant for any individual year. When they added goodwill assets to their regression as a control variable, the coefficient estimate on goodwill amortization was significantly negative in five of the seven years. The coefficient estimates varied widely from year to year, however, perhaps as a result of the small sample size, which ranged between 89 and 149 observations each year. In contrast, in the study described here, we examined not only a more recent period, 1993–1998, but also a much larger sample (it ranged from 355 to 550 observations each year).

4. In their experimental study, Hopkins et al. provided evidence that reporting earnings per share before goodwill amortization, rather than earnings per share including goodwill amortization, has the potential to change analysts' price judgments.

5. In its first exposure draft (FASB 1999), the FASB proposed both the elimination of pooling-of-interests accounting and that companies continue amortizing goodwill but over a maximum period of 20 years. These rules would have had the effect of greatly increasing the amount of goodwill included in earnings. In response to substantial negative public comments, the FASB adopted the view expressed by several respondents to the initial exposure draft, namely, to replace systematic amortization with a review for impairment when circumstances warrant (Burns 2000; Plitch 2000; and American Business Conference et al. 2000).

6. To compute *EPSBGW*, we added goodwill amortization on a per share basis (*GWA*) to per share income from continuing operations available for common shareholders (*EPSAGW*). Following Jennings, LeClere, and Thompson (1997), for companies having potentially dilutive securities outstanding, we measured per share amounts on a diluted basis. We obtained similar results using per share amounts that ignored the potential for dilution.

7. The sample comprised companies from SIC codes 1000–3999, 5300–5999, and 7000–9999.

8. We deleted companies with negative earnings because negative earnings realizations are likely to contain large transitory components and are thus likely to be poor indicators of value (Hayn 1995; Burgstahler and Dichev 1997; Chambers 1999).

9. We went to some effort to estimate goodwill amortization, rather than simply using intangibles amortization as a substitute, because SFAS 142 continues to require systematic amortization for most identifiable intangibles that are acquired.

10. Note that dividing *gross* goodwill by current goodwill amortization would indicate the weighted-average amortization period for recorded goodwill. Compustat reports goodwill net of accumulated amortization, however, and few companies actually disclose gross goodwill. Also note that the low values of the ratio at the 5th and 10th percentiles of the distribution (0.015 and 0.022) suggest amortization periods in excess of 40 years. These low values can occur because companies are not required to amortize goodwill recognized before the adoption of APB 17 (AICPA 1970b, paragraph 33).

11. All regression results were based on the 2,918 company-years for which we were able to estimate goodwill amortization minus 111 observations that we identified as "influential" by using diagnostics described by Belsley, Kuh, and Welsch (1980).

12. Vuong's test compares the sum of squared residuals from two alternative nonnested regressions that have the same dependent variable and, therefore, the same total sum of squares. Our implementation of the test followed Dechow (1994).

13. These results are not consistent with Hopkins et al., which suggested that investors do not assign valuation multiples of zero to goodwill amortization unless a subtotal for "income before goodwill amortization" is presented on the face of the income statement.

14. When we estimated the fixed-year-effects regressions for this subsample, the results were qualitatively similar to those we report in Tables 3 and 4 for the entire sample.

15. We examined the financial statements of about half of these companies. Although all of them explicitly disclosed goodwill assets, they did not generally disclose the extent of other intangibles, if any.

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