

The Financial Statement Effects of Eliminating the Pooling-of-Interests Method of Acquisition Accounting

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SYNOPSIS: Accounting standard setters have become increasingly concerned with the perceived manipulation of financial statements afforded by the pooling-of-interests (pooling) method of accounting for corporate acquisitions. While different restrictions have been discussed, in September 1999 the Financial Accounting Standards Board (FASB) issued an Exposure Draft to eliminate the pooling method. This study provides a basis for evaluating restrictions on the pooling method by analyzing the financial statement effects on pooling acquisitions made by public corporations over the period 1992 through 1997. Using these acquisitions we (1) quantify the scope of the "pooling problem," (2) estimate the financial statement repercussions of eliminating the pooling method, and (3) examine the effects of restricting pooling accounting to business combinations meeting various "merger of equals" restrictions.

While our analysis does not address whether restrictions on the pooling method will influence the nature or level of acquisition activity, the results indicate that the pooling method generates enormous amounts of unrecognized assets, across individual acquisitions, and in aggregate. In addition, our results suggest that recording and amortizing these assets generate significant balance sheet and income statement effects that vary with industry. Regarding restrictions on the pooling method, our analysis indicates that size restrictions would significantly reduce the number and value of pooling acquisitions and unrecognized assets generated by these acquisitions.

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INTRODUCTION

Accounting Principles Board (APB) Opinion No. 16, *Business Combinations* (APB 1970a) regulates how acquiring firms (bidders) account for the difference between the price paid for the acquired company (target) and the book value of stockholders' equity on the target's balance sheet. The pooling-of-interests (pooling) method combines the financial statements of the target and bidder at existing book values and, thus, does not require the bidder's financial statements to recognize the difference between acquisition price and target book value. In contrast, the purchase method recognizes the difference between acquisition price and target book value by adjusting target assets and liabilities to fair market values on the bidder's financial statements. Excess value that cannot be allocated to identifiable tangible or intangible assets is assigned to goodwill.

Under Opinion No. 17, *Intangible Assets* (APB 1970b), goodwill recognized using the purchase method is amortized over a period not to exceed 40 years. Consequently, the purchase method generally leads to decreased accounting income via goodwill amortization and other expenses resulting from adjusting target book values to fair market values (e.g., increased depreciation expense). Despite restrictions imposed on the use of the pooling method under APB No. 16, prior research (e.g., Ayers et al. 1999; Lys and Vincent 1995) suggests that managers prefer this accounting method and are willing to incur significant costs to avoid the recognition of additional assets and expenses associated with the purchase method.

In recent years, accounting standard setters have become increasingly concerned with the perceived manipulation of financial statements afforded by two acquisition accounting methods (Johnson and Yokley 1997). In addition, concerns have grown that having two acquisition accounting methods compromises financial statement comparability across firms. Consistent with these concerns, the Financial Accounting Standards Board (FASB) issued an Exposure Draft in September 1999 that proposes to eliminate the pooling method as an acceptable method to account for business combinations (AcSB 1999). A final statement reflecting the FASB's decisions with respect to the accounting for business combinations is expected in late 2000. If the pooling method were eliminated, the purchase method would be mandated for those combinations initiated after the issue date of the FASB standard (FASB 1999b).

The objective of this study is to analyze the financial statement effects of eliminating or severely restricting the pooling-of-interests method of accounting for business combinations. Our analysis is based upon a comprehensive set of pooling acquisitions by public corporations over the period 1992 through 1997 available from Securities Data Corporation's (SDC) *M&A Database*.¹ We conduct our investigation in three stages. First, we quantify the scope of the "pooling problem" by documenting the quantity and magnitude of pooling acquisitions completed during the sample period. Of particular importance, we document the magnitude of target purchase price—across individual transactions, industries, and in aggregate—not recognized under the pooling method. Second, we estimate the financial statement repercussions of eliminating the pooling method by estimating the "as if" effects of using purchase accounting on a sample of pooling acquisitions, holding all else equal (i.e., ignoring changes in acquisition structure or price associated with pooling acquisitions). In this analysis, we focus attention on "as if" differences in key financial reporting ratios (i.e., return on equity, earnings

¹ For expositional ease we refer to business combinations accounted for by the pooling-of-interests method as "pooling acquisitions" and those accounted for by the purchase method as "purchase acquisitions." The *SDC M&A Database* includes a comprehensive set of acquisitions over \$1 million in value.

per share, and market-to-book ratio). We also document the sensitivity of these "as if" ratios to various recovery periods for assets previously not recognized under pooling accounting.² Third, we examine the effects of restricting pooling accounting to business combinations meeting various size restrictions ("mergers of equals") proposed as alternatives to eliminating the pooling method completely.

Empirical evidence in this study facilitates the evaluation of the perceived problem with acquisition accounting methods. Our analysis of the differential between the book value of the target and the acquisition price is especially important because the perceived lack of comparability between the pooling and purchase methods stems from this differential. Finally, our "as if" analysis of financial statement ratios and analysis of the effects of merger-of-equals restrictions provides a basis for evaluating various restrictions on the pooling method. While our analyses provide insights into the proposed changes to acquisition accounting methods, we make no assumptions regarding the effects that restricting the pooling method may have on the nature or level of acquisition activity. Nonetheless, the results of this analysis serve as a useful starting point for assessing the potential effect of pooling restrictions.

Our evidence suggests that the quantity and dollar magnitude of pooling acquisitions have risen dramatically over the period 1992 through 1997. Furthermore, the assets created but previously not recognized via pooling acquisitions are massive in amount (\$267 billion for our sample) and substantial relative to the value of pooling acquisitions (on average, comprising approximately 66 percent of the acquisition price). Our results suggest that eliminating the pooling method may generate a significant decrease in bidder earnings per share with more pronounced effects on bidder market-to-book ratio and return on equity, ratios which reflect both the balance sheet and income statement effects of eliminating the pooling method. Depending upon the assumed amortization periods, declines in earnings per share and return on equity ratios generated by recording the unrecognized assets created by a typical pooling acquisition of a publicly held target range from a 4 to 15 percent decrease and a 13 to 22 percent decrease, respectively. Eliminating the pooling method would generate a 17 percent decrease in bidder market-to-book ratio for the typical sample acquisition of a publicly held target. Estimated effects of eliminating the pooling method also vary by industry. For example, decreases in return on equity for a typical acquisition, assuming a ten-year amortization period for unrecognized assets, range from a 65 percent decline for the hotel and services industry to a 13 percent decline for the financial services industry.

With respect to restricting the use of the pooling method to acquisitions considered mergers of equals, our analyses suggest that restricting pooling treatment via a relative size criterion may have a significant effect on the number and value of pooling acquisitions and unrecognized assets generated by these acquisitions. For example, limiting pooling treatment to acquisitions where the value of the smaller firm is within 20 percent of the value of the larger firm generates a 79 percent reduction in the value of pooling acquisitions and an 80 percent reduction in the value of unrecognized assets generated by pooling acquisitions. Nonetheless, a size restriction, depending on its exact implementation, may allow a number of acquisitions to be accounted for under the pooling method.

² The FASB is currently proposing a reduction in the amortization period for goodwill from the 40-year period stipulated in APB No. 17 to a period not exceeding 20 years (FASB 1999b). They have, however, also considered various amortization periods for goodwill ranging from a strict ten-year amortization schedule to permanent capitalization with periodic testing for impairment (MacDonald 1999).

The remainder of this study is organized as follows. The next section provides a historical and current perspective of accounting for business combinations and summarizes recent proposals for eliminating or restricting use of the pooling method. The third section presents our analyses of pooling acquisitions from 1992 through 1997, and the final section concludes.

BACKGROUND

Historical Perspective

The pooling method has not always been the *preferred* method of accounting for business combinations.³ In the 1940s firms were allowed to write-off goodwill, defined then as the difference between the purchase price and the target's book value, immediately following an acquisition under the rules of Accounting Research Bulletin No. 24, *Accounting for Intangible Assets* (Committee on Accounting Procedure 1944). Thus, subsequent to the acquisition year there were few incentives to choose between the purchase and the pooling methods. It was not until Accounting Series Release No. 50, *The Propriety of Writing Down Goodwill by Means of Changes to Capital Surplus* (SEC 1945) and Accounting Research Bulletin No. 43, *Restatement and Revision of Accounting Research Bulletins* (Committee on Accounting Procedure 1953), which both disallowed the one-time write-off of goodwill, that incentives existed for firms to prefer the pooling method, i.e., avoidance of annual goodwill amortization.

Throughout the 1950s and the 1960s the Committee on Accounting Procedure and then the Accounting Principles Board (APB) issued several pronouncements addressing the accounting for business combinations. The series of Accounting Research Bulletins and Opinions, however, were inadequate to deal with firms' preference for the pooling method and, thus, the perceived abuses in structuring acquisitions to qualify for the pooling method continued. Consequently, the APB formed a committee in 1968 to examine the accounting for business combinations. The APB preliminarily recommended the elimination of the pooling method but ultimately retreated from this position opting instead to issue APB Opinion No. 16, *Business Combinations* (APB 1970a). This pronouncement attempted to purge past abuses by establishing 12 restrictive criteria that a combination must meet in order to be accounted for as a pooling. Unfortunately, APB No. 16 did not eliminate the potential for abuses associated with two accounting methods for business combinations. As a result, in August 1996 the FASB initiated a project to assess the need for *two* separate acquisition accounting methods (purchase and pooling-of-interests) as set forth in APB No. 16.

Current Perspective

Widespread criticism of the pooling method has accompanied the latest standard-setting project addressing the accounting for business combinations. For example, in a special report, *Issues Associated with the FASB Project on Business Combinations* (Johnson and Yokley 1997), the FASB expressed concern that the existence of two methods to account for almost identical transactions induces firms to manage their financial statement presentation. Furthermore, the FASB argued that comparability among companies suffers because of the differential financial statement effects associated with the two methods. Criticism of the pooling method has not been limited to the FASB. Others have argued that maintaining two methods utilizes substantial regulatory resources as

³ Information presented in this section relied on FASB (1998) and Rayburn and Powers (1991).

the SEC and FASB staffs spend considerable time interpreting the pooling method (Johnson and Yokley 1997). Still others (e.g., Wahlen et al. 1999) have argued that the pooling method suffers from a lack of accounting theory (e.g., nonrecognition of the purchase price of an asset) and that the underlying substance of the pooling method (e.g., continuation of the ownership interests) is rarely met in practice. It is apparent from the level of criticism that the pooling method will likely not remain unscathed.

Proposed Changes

The FASB issued an Exposure Draft in September 1999 that would require the use of the purchase method to account for all business combinations and therefore the pooling method would be eliminated (FASB 1999b). The elimination of the pooling method would require, consistent with the application of the purchase method, the allocation of acquisition price to the fair values of identifiable tangible or intangible assets, with the excess allocated to goodwill. A final statement reflecting the FASB's decisions regarding the accounting for business combinations is expected in late 2000.

In addition to eliminating the pooling method, the FASB is proposing to reduce the maximum goodwill amortization period from the 40 years set forth in APB No. 17 to 20 years (FASB 1999b).⁴ The FASB is also proposing the requirement of a review of goodwill for impairment within two years of a business combination if certain events involving the combination occur. Conditions triggering a review would be more likely to be observed in a combination that would have qualified as a pooling rather than a purchase, e.g., a significant premium paid for the acquired firm above its pre-acquisition market value, a significant amount of goodwill, and the method of payment is the acquirer's shares (FASB 1999b). Thus, it is likely that not only will the pooling method be eliminated or restricted, but goodwill amortization periods are also likely to be reduced.

Alternative Proposals

As an alternative to eliminating the pooling method, the FASB could opt for restricting use of the pooling method to a standard consistent with the international community. Currently, Canada, the United Kingdom, and the International Accounting Standards Committee (IASC) permit the pooling method when an acquirer cannot be identified.⁵ Conditions such as the resulting voting interests of the two combining firms and the relative size of the combining firms are considered in attempting to identify an acquirer. If an acquirer cannot be identified, the combination is termed a "merger of equals" and the pooling method is applied to the combination. Problems, however, have incurred in applying the merger-of-equals criteria. Both Canada and the United Kingdom have experienced firms manipulating the merger-of-equals criteria by engaging in "grooming transactions" prior to the acquisition (FASB 1998). Thus, restricting the

⁴ Other standard-setting bodies of the G4+1 basically stipulate a 20-year maximum goodwill amortization period. The Canadian Accounting Standards Board currently has a 40-year maximum period, but recently proposed reducing the maximum goodwill amortization period to 20 years (AcSB 1999). Although the United Kingdom and the IASC both have standards that include a rebuttable presumption of a 20-year maximum, the standards do not prescribe an absolute maximum goodwill amortization period. Members of G4+1 include representatives of the Australian Accounting Standards Board, the Canadian Accounting Standards Board, the New Zealand Financial Reporting Standards Board, the United Kingdom Accounting Standards Board, and the FASB. International Accounting Standards Committee representatives participate as observers.

⁵ The Canadian Accounting Standards Board issued an Exposure Draft in September 1999 proposing, similar to the FASB, that the purchase method be used to account for all business combinations (AcSB 1999).

pooling method with merger-of-equals criteria may not completely rid firms' ability to manipulate financial statement presentation. Nonetheless, this restriction would likely significantly reduce the number of qualifying acquisitions.

The FASB has previously considered restricting the pooling method to mergers of equals but has tentatively decided against such an approach (MacDonald 1999). We analyze restricting the use of the pooling method to combinations satisfying various merger-of-equals criteria to illustrate the effects of alternative restrictions on the use of the pooling method. Given that other standard-setting bodies currently allow the pooling method for merger of equals, we view this as a possible compromise in the current pooling debate.

ANALYSIS

We conduct our analysis of the financial statement effects of eliminating or restricting the pooling-of-interests method in three stages. First, we quantify the scope of the pooling problem by documenting the quantity and magnitude of pooling acquisitions completed during the sample period. Second, we estimate the financial statement repercussions of eliminating the pooling method by estimating the "as if" effects of using purchase accounting on a representative sample of pooling acquisitions. In this analysis, we focus attention on "as if" differences in key financial-reporting ratios (i.e., return on equity, earnings per share, and market-to-book ratio). This analysis does not consider potential responses to restrictions on the pooling method. For example, our analysis does not adjust for the changes in acquisition prices that might accompany the elimination of the pooling method suggested by Ayers et al. (1999). While we acknowledge the possibility that managers structure acquisitions to qualify for the pooling method, our analysis does provide a useful starting point for assessing the potential effect of pooling restrictions. Finally, we examine the effects of restricting pooling accounting to business combinations meeting various merger-of-equals restrictions proposed as alternatives to eliminating the pooling method completely.

Sample

Analysis is based upon a comprehensive set of pooling acquisitions by public corporations over the period 1992 through 1997 available from the *SDC M&A Database*. Panel A of Table 1 presents the sample derivation. Our initial sample consists of pooling acquisitions by public corporations completed during the sample period. We derive three subsamples for additional analysis. Subsample 1 includes only those acquisitions for which we have the target firm's book value (this allows us to calculate the amount of assets previously not recognized under the pooling method).⁶ Subsample 2 excludes those acquisitions for which we do not have the bidder firm's book value (this allows us to calculate the size of the unrecognized assets relative to the bidder). Finally, Subsample 3 acquisitions include only acquisitions of publicly held target firms for which we have bidder financial information (beyond book value). We exclude acquisitions of private firms from Subsample 3 because these acquisitions are small in dollar magnitude and few have the requisite information (135 in all).

Panel B presents the distribution of sample acquisitions across bidder industry according to whether the target firm was publicly or privately held. With the exception of the natural resources and financial services industries, acquisitions of private firms are more numerous than are acquisitions of public firms in each of the sample industries.

⁶ Target book value, measured at the fiscal year-end prior to the acquisition, and other financial statement information were obtained using both the *SDC M&A Database* and Compustat.

TABLE 1
Distribution of Pooling Acquisitions 1992–1997
Securities Data Corporation's M&A Database

Panel A: Sample Derivation

All acquisitions by public corporations accounted for under the pooling-of-interests method	1,342
Less acquisitions missing information on target's book value prior to the acquisition	- 586
Subsample 1:	
Pooling acquisitions with data on magnitude of unrecognized assets (consideration minus target book value)	756
Less acquisitions missing information on bidder's book value in the acquisition year	- 181
Subsample 2:	
Pooling acquisitions with information about the relative size of unrecognized assets (percentage of bidder's book value)	575
Less acquisitions missing information on bidder's post-acquisition book value, net income, or market value	- 171
Less acquisitions of private targets	- 135
Subsample 3:	
Pooling acquisitions of public firms with information on the effect of pooling on financial statement ratios	269

Panel B: Distribution of All Pooling Acquisitions by Bidder Industry Affiliation and Status of Target Firm

Bidder Industry Affiliation	Public Target	Private Target	Total
SIC 0000 Agriculture, forestry, and fishing	0	1	1
SIC 1000 Metal and mining	15	4	19
SIC 2000 Food, textile, and chemicals	27	32	59
SIC 3000 Rubber, metal, and machines	95	140	235
SIC 4000 Transportation and utilities	32	48	80
SIC 5000 Wholesale and retail trade	34	54	88
SIC 6000 Financial services	272	192	464
SIC 7000 Hotel and other services	69	210	279
SIC 8000 Health and engineering	42	75	117
Totals	586	756	1,342

Scope of the Pooling Problem

Table 2, Panel A presents the distribution of the number and value of sample pooling acquisitions (fair value of consideration paid for the acquired company) by year and industry. For comparison purposes, Panel B presents the distribution of similar purchase acquisitions available from *SDC* during the sample period. Purchase acquisitions in Table 2, Panel B consist of purchase acquisitions in which the bidder acquired at least 90 percent of the outstanding stock of the target. Consistent with the increased attention afforded pooling-method acquisitions, both the quantity and dollar magnitude of these acquisitions have risen dramatically from 105 pooling acquisitions aggregately valued at \$16.9 billion in 1992 to 321 pooling acquisitions valued at \$213.8 billion in 1997. These amounts represent over a 200 percent and 1,100 percent increase in the quantity and value of pooling acquisitions, respectively, over the sample period. In comparison, purchase acquisitions also experienced an increase in number and magnitude, but at a significantly lower rate than pooling acquisitions. In contrast to pooling acquisitions, purchase acquisitions experienced over a 100 percent and 700 percent increase in quantity and value, respectively. Given the aggregate and relative magnitude of the trend in pooling acquisitions, the increased attention on the financial statement differences in purchase and pooling acquisitions is not surprising.

With respect to the distribution across industries, acquisitions in the financial services industry account for approximately one-third of all pooling acquisitions in number and value. This evidence may explain reports of the banking industry's opposition to elimination of the pooling method. The FASB (1999a) reports in their *Analysis of Comment Letters* that the banking industry expressed the greatest opposition to having only the purchase method available for business combinations. Almost 70 percent of the banks indicating support for the two methods "stated that two methods are needed to faithfully represent the full range of business combinations" (FASB 1999a).

To understand the magnitude of the pooling problem it is necessary to not only quantify the number, size, and trend of pooling acquisitions, but also to estimate the assets not recognized under the pooling method that would be recognized under the purchase method. These unrecognized assets are the crux of the pooling problem. We calculate the unrecognized assets as the difference between the value of the consideration paid for the target firm and target book value. While acquisitions in Subsample 1 have sufficient information to calculate unrecognized assets, we cannot determine the exact "goodwill" that would be recorded under the purchase method because the purchase price that would be allocated to existing tangible and intangible assets cannot be determined. Nonetheless, analysis of unrecognized assets does allow us to estimate the balance sheet effects of the pooling method and, with qualifying assumptions, establish bounds for the income statement effects of the pooling method.

Table 3 presents the value of acquisitions in Subsample 1 and unrecognized assets distributed across bidder industry. While Subsample 1 excludes 586 of the 1,342 sample acquisitions, the value of Subsample 1 acquisitions (\$404.2 billion) comprises almost 87 percent of the aggregate value of the 1,342 sample pooling acquisitions. Thus, Subsample 1 acquisitions represent most of the acquisition value associated with pooling acquisitions during the sample period.

TABLE 2
Comparison of Value (Number) of Pooling and Purchase Acquisitions by Bidder Industry and Year of Acquisition

Panel A: Value (Number) of Pooling Acquisitions by Bidder Industry and Year of Acquisition ^a						Panel B: Value (Number) of Purchase Acquisitions by Bidder Industry and Year of Acquisition ^{a,c}									
Bidder Industry ^b	1992	1993	1994	1995	1996	1997	Total	Bidder Industry ^b	1992	1993	1994	1995	1996	1997	Total
SIC 0000				0.1 (1)	0.1 (1)		0.1 (1)	SIC 0000	0.0 (1)	0.0 (1)	0.0 (1)	0.0 (1)	0.0 (4)	0.1 (5)	0.1 (12)
SIC 1000			1.1 (4)	1.0 (3)	0.4 (4)	8.6 (8)	11.1 (19)	SIC 1000	1.0 (18)	3.9 (59)	1.0 (32)	4.5 (27)	1.9 (26)	8.7 (32)	21.0 (194)
SIC 2000	0.3 (8)	0.6 (9)	1.6 (6)	7.6 (10)	4.1 (11)	8.9 (15)	23.0 (59)	SIC 2000	2.7 (20)	10.1 (44)	31.4 (49)	17.1 (50)	25.8 (57)	23.3 (63)	110.4 (283)
SIC 3000	1.2 (15)	1.8 (16)	4.9 (21)	12.4 (55)	23.1 (72)	39.8 (56)	83.3 (235)	SIC 3000	3.3 (55)	6.4 (71)	6.0 (102)	24.4 (109)	31.0 (132)	34.7 (122)	105.8 (591)
SIC 4000	3.2 (5)	4.3 (5)	18.6 (9)	7.0 (18)	3.5 (12)	52.8 (31)	89.4 (80)	SIC 4000	2.8 (32)	6.8 (38)	6.9 (48)	12.1 (54)	44.0 (44)	26.7 (61)	99.3 (277)
SIC 5000	0.4 (3)	3.2 (12)	1.4 (16)	2.9 (15)	3.0 (24)	8.4 (18)	19.2 (88)	SIC 5000	2.1 (22)	1.0 (31)	3.2 (44)	1.8 (34)	10.8 (38)	12.3 (48)	31.2 (217)
SIC 6000	9.2 (42)	9.0 (63)	14.5 (87)	19.0 (100)	37.4 (81)	65.2 (91)	154.5 (464)	SIC 6000	8.1 (80)	10.4 (122)	15.1 (186)	22.2 (194)	47.0 (192)	57.3 (194)	160.0 (968)
SIC 7000	0.9 (19)	1.4 (20)	2.6 (29)	11.0 (56)	8.7 (76)	14.2 (79)	38.4 (279)	SIC 7000	1.0 (31)	1.6 (51)	20.7 (54)	7.4 (53)	36.9 (72)	6.4 (71)	74.0 (332)
SIC 8000	1.7 (13)	4.5 (9)	8.7 (19)	10.0 (31)	5.9 (22)	15.9 (23)	46.7 (117)	SIC 8000	0.8 (33)	1.8 (25)	4.9 (29)	5.0 (32)	6.6 (34)	8.7 (37)	27.8 (190)
Annual Total	16.9 (105)	24.8 (134)	53.4 (191)	70.5 (288)	86.3 (303)	213.8 (321)	465.7 (1342)	Annual Total	21.8 (292)	42.0 (442)	89.2 (544)	94.5 (554)	204.0 (599)	178.2 (633)	629.7 (3064)

^a Acquisition amounts represent the value of the consideration paid in billions of dollars.

^b SIC is the bidder's Standard Industrial Classification.

^c Acquisitions include purchase acquisitions in which the bidder acquired at least 90 percent of the outstanding stock of the target.

See Table 1 for SIC definitions.

TABLE 3
Acquisition Value and Unrecognized Assets by Industry
of Acquiring Firm in Pooling Acquisitions
(Subsample 1)

<u>Bidder Industry Affiliation</u>	<u>Number of Acquisitions</u>	<u>Acquisition Value^a</u>	<u>Unrecognized Assets^b</u>
SIC 1000 Metal and mining	16	\$ 11.0	\$ 8.3
SIC 2000 Food, textile, and chemicals	30	14.8	11.0
SIC 3000 Rubber, metal, and machines	120	71.6	57.3
SIC 4000 Transportation and utilities	34	68.1	48.3
SIC 5000 Wholesale and retail trade	50	17.2	12.6
SIC 6000 Financial services	351	150.4	73.7
SIC 7000 Hotel and other services	99	31.7	25.3
SIC 8000 Health and engineering	56	39.4	30.5
	<u>756</u>	<u>\$404.2</u>	<u>\$267.0</u>

^a Acquisition value represents the value of the consideration paid for the acquired firm (in billions of dollars).

^b Unrecognized assets represent the difference between the value of the consideration paid for the acquired firm and the book value of the assets of the acquired firm (in billions of dollars).

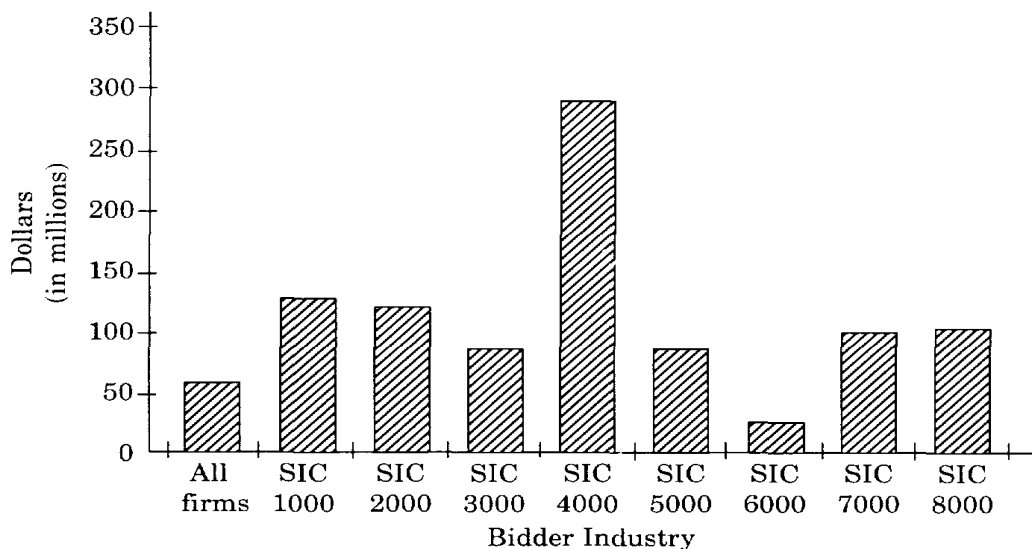
See Table 1 for derivation of Subsample 1.

Assets not recognized for Subsample 1 acquisitions are massive in amount (\$267 billion) and substantial relative to the value of these pooling acquisitions (on average, comprising approximately 66 percent of the acquisition price). Across industries, these unrecognized assets exceed 70 percent of the acquisition value for all industries except for the financial services industry. Assets not recognized in the financial services industry (\$73.7 billion) comprise about half of the acquisition value. This evidence suggests that the pooling method has effectively allowed the bidder's financial statements to forgo reporting a significant portion of the target's purchase price and that this phenomenon is prevalent across industries.

To further quantify the pooling problem, we analyze the magnitude of unrecognized assets on a per-acquisition basis. To avoid analyses being skewed by a few large acquisitions, we represent the "typical" acquisition as the median acquisition for each bidder industry and the overall subsample. Figure 1 presents the median amount of assets not recognized per pooling acquisition across bidder industry for Subsample 1 acquisitions. Figure 2 presents the median ratio of assets not recognized relative to the bidder's book value, measured at the end of the year following the acquisition, for the 575 acquisitions in Subsample 2. As illustrated in Figure 1, the median amount of unrecognized assets is substantial across industries, ranging from a high of approximately \$292 million for a transportation and utilities industry acquisition (SIC 4000) to a low of approximately \$25 million for a financial services industry acquisition (SIC 6000).⁷ The

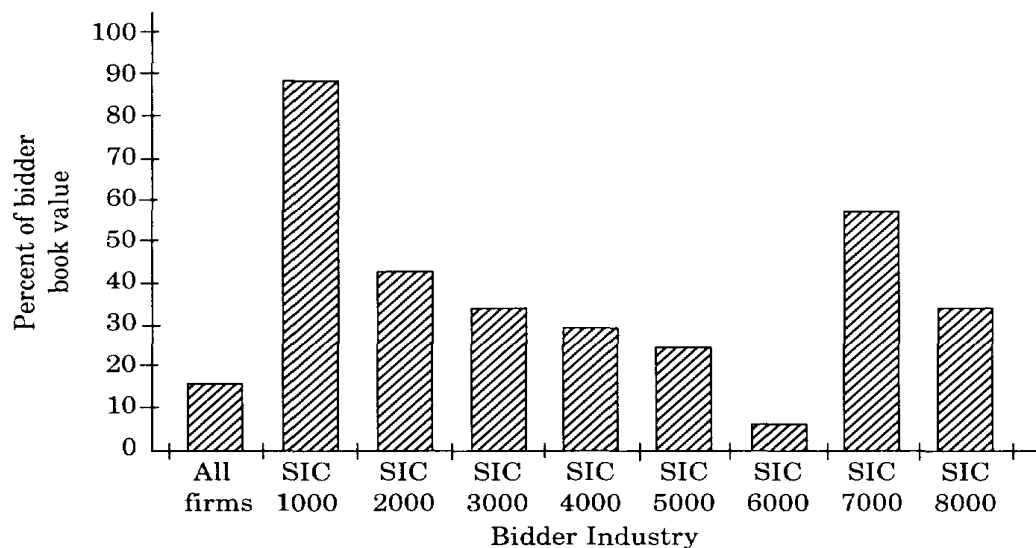
⁷ The assets not recognized for the typical pooling acquisition of a publicly held corporation are significantly higher than those of privately held corporations, ranging from approximately \$339 million for a transportation and utilities industry acquisition to approximately \$46 million for a financial services industry acquisition.

FIGURE 1
Median Unrecognized Net Assets by Bidder Industry
(Subsample 1)



See Table 1 for SIC definition and Subsample 1 derivation.
 Unrecognized net assets are defined in Table 3.

FIGURE 2
Median Unrecognized Net Assets Relative to
Bidder Book Value by Bidder Industry
(Subsample 2)



See Table 1 for SIC definition and Subsample 2 derivation.
 Unrecognized net assets are defined in Table 3.

relatively small amount of unrecognized assets for the typical financial service industry acquisition suggests that the industry's opposition to eliminating the pooling method may be driven by the quantity and aggregate magnitude of pooling acquisitions consummated by industry members as opposed to the per-acquisition value.

When the unrecognized assets are represented as a percentage of the bidder's book value, Figure 2 documents that the typical magnitude of the target's purchase price not recognized pursuant to pooling accounting is considerable relative to the bidder's book value. Assets not recognized represent in excess of 30 percent of the bidder's book value for typical acquisitions in six of eight industries, with ratios across the eight industries ranging from a high of 88 percent for the natural resources industry (SIC 1000) to a low of 6 percent for the financial services industry (SIC 6000). The variation in the proportion of unrecognized assets across industries may relate to the nature of the assets used by the firms in each industry. For example, evidence presented in Godwin et al. (1998) shows that the typical property-liability insurer in 1995 reported a majority of its assets at fair value. If target assets are primarily accounted for at market values, then there would be a smaller differential between target book value and acquisition price. Nonetheless, this evidence illustrates that the balance sheet effect could be significant if bidders are required to use the purchase method.

In sum, analyses indicate that the magnitude of the pooling problem is sizable. Evidence suggests that firms avoid recognition of significant amounts of target firms' purchase prices, both in aggregate and per acquisition, via the pooling method. Further, this evidence indicates that these unrecognized assets are significant relative to the bidder's size. Combined, these findings imply a potential significant effect on bidders' financial statements of eliminating or restricting use of the pooling method for future acquisitions. The next section analyzes the effects of eliminating the pooling method focusing on these acquisitions.

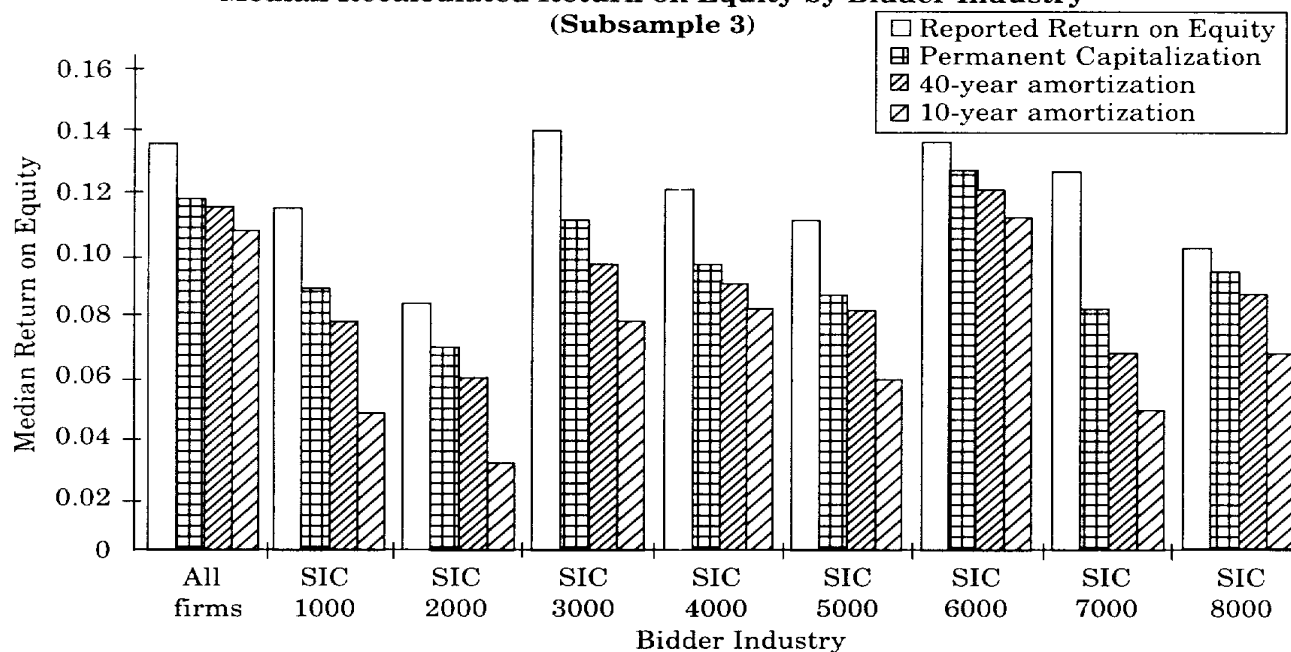
Effects of Eliminating the Pooling Method

To document the effects of eliminating the pooling method for future corporate acquisitions, we focus our analyses on "as if" differences in three key financial-reporting ratios for Subsample 3 acquisitions (acquisitions of publicly held targets): return on equity, earnings per share, and market-to-book ratio. Again, it is important to note that our analysis of changes in financial ratios ignores the possibility that firms may alter transactions in contemplation of not being able to use the pooling method. For example, managers of firms that are likely to be required to use the purchase method might engage in share repurchases that could influence earnings-per-share ratios. As with previous analyses, we present median statistics across bidder industry to avoid results being skewed by a few large acquisitions.

Effects of Eliminating the Pooling Method—Bidder Return on Equity

Figure 3 presents the effects of recording assets previously not recognized via the pooling method on bidder profitability (represented by return on equity). We calculate the bidder's return on equity as the ratio of the bidder's net income to equity at the end of the year following the acquisition. Previously unrecognized assets increase bidder book value, whereas the amortization of these assets decrease both bidder net income and book value. For comparison, we estimate the effects of recording unrecognized assets assuming (1) no amortization (i.e., permanent capitalization), (2) amortization of unrecognized

FIGURE 3
Median Recalculated Return on Equity by Bidder Industry
(Subsample 3)



See Table 1 for SIC definition and Subsample 3 derivation.

Return on equity is calculated assuming the recognition and amortization of unrecognized net assets (see Table 3).

assets over 40 years (the current maximum goodwill amortization period pursuant to APB No. 17), and (3) amortization of unrecognized assets over 10 years.^{8,9}

As indicated in Figure 3, recording assets previously not recognized under the pooling method has a substantial effect on return-on-equity ratios, regardless of the amortization period of these assets. Assuming permanent capitalization of unrecognized assets, the typical bidder's return on equity for Subsample 3 decreases from 13.6 percent to 11.8 percent, a 13 percent decline in bidder return on equity. Assuming a ten-year uniform amortization life for previously unrecognized assets, the typical bidder's return on equity decreases from 13.6 percent to 10.6 percent, a 22 percent decline. If these acquisitions are representative of future acquisitions, this evidence suggests that eliminating the pooling method will have considerable effects on firm profitability ratios. Nonetheless, unless a very short amortization period is adopted, the bulk of the effect

⁸ Because the purchase price not recognized via pooling accounting (i.e., the unrecognized assets) would, pursuant to the purchase method, be allocated to various classes of target assets (e.g., land, building, machinery, goodwill, etc.), this previously unrecognized amount would be recovered over various recovery lives. Due to obvious data limitations, we are unable to estimate the assets classes (and related recovery periods) to which the purchase price would be allocated. Instead, we use varied uniform amortization periods to gauge the effects of capitalizing and amortizing previously unrecognized amounts.

⁹ We also analyzed the effects on return on equity (and earnings per share) assuming a 20-year uniform amortization period for unrecognized assets. As expected, the effects of pooling elimination, assuming a 20-year amortization period, fall predictably between those of the 40-year and ten-year amortization periods. We present the 40-year and ten-year analyses to document the possible range of effects of pooling elimination for firms with assets with varying recovery periods.

on the return on equity ratio will likely be attributable to the recording of assets previously not recognized by the pooling method as opposed to their amortization.

Figure 3 also documents that the effects of eliminating the pooling method are not uniform across industries. A sample acquisition in the hotel and services industry (SIC code 7000) has the most dramatic effect on the typical bidder's return on equity.¹⁰ Assuming permanent capitalization of unrecognized assets, the median bidder's return on equity in this industry decreases from 13.0 percent to 8.4 percent, a 35 percent decline. With a ten-year uniform amortization life, the typical bidder's return on equity in this industry declines from 13.0 percent to 4.5 percent, a 65 percent decline. Bidders in the financial services industry (SIC 6000) experience the least effect on profitability ratios per acquisition. Assuming permanent capitalization of unrecognized assets, the typical bidder's return on equity decreases from 14 percent to 13 percent, a 7 percent decline. With a ten-year uniform amortization life, the typical bidder's return on equity in the financial services industry declines from 14 percent to 12.2 percent, a 13 percent decline. In sum, evidence suggests that eliminating the pooling method affects profitability ratios in all industries, but there is a wide dispersion of the magnitude of these effects.

Effects of Eliminating the Pooling Method—Bidder Earnings Per Share

To further investigate the effect of eliminating the pooling method on bidder profitability, Figure 4 presents the effect of amortizing assets previously not recognized via the pooling method on bidder earnings per share.¹¹ We calculate bidder's earnings per share as the ratio of bidder net income to shares outstanding at the end of the year following the acquisition. Amortization of previously unrecognized assets decreases bidder net income but does not affect the denominator in this profitability measure. Thus, earnings per share reflects the income statement but not balance sheet effects of eliminating the pooling method. We estimate the effects on earnings per share assuming (1) amortization of unrecognized assets over 40 years and (2) amortization of unrecognized assets over ten years.

Figure 4 documents that the effects of eliminating the pooling method on firm earnings per share are substantial but less pronounced than the effects on return on equity. Assuming a 40-year amortization period, decreases in earnings per share range from a 2.2 to 15.7 percent decrease for a typical acquisition in the financial services (SIC 6000) and the hotel and other services industries (SIC 7000), respectively. Assuming a ten-year amortization period, decreases range from 8.3 to 42 percent for typical acquisitions in the financial services and the food, textile, and chemicals industries (SIC 2000), respectively. In sum, results suggest that the effects on firm earnings per share are more moderate than those on other profitability ratios (i.e., those ratios that reflect both the income statement and balance sheet effects of eliminating the pooling method). Nonetheless, there is considerable variability in the effects on earnings per share across industries.

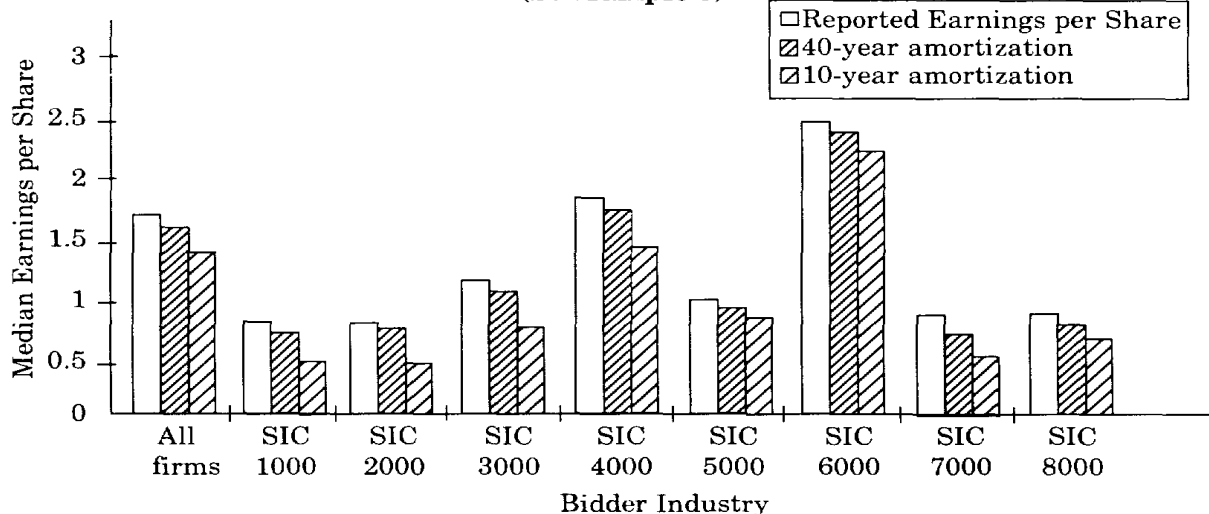
Effects of Eliminating the Pooling Method—Bidder Capitalization Ratios

Figure 5 presents the effects of recording unrecognized assets generated by pooling acquisitions on the bidder's market capitalization (represented by the market-to-book

¹⁰ SIC 7000 includes information technology and computer-related companies involved in activities such as software, programming, processing, systems design, and information retrieval. Similar to the comments made by the banking industry, the technology industry (represented by The Information Technology Association of America or [ITAA]) has strongly opposed the elimination of the pooling method (*Business Wire* 1999).

¹¹ We also analyzed the effects of eliminating the pooling method on firm earnings-to-price ratios. Results are qualitatively similar to those presented in Figure 4 and, thus, are not reported.

FIGURE 4
Median Recalculated Earnings per Share by Bidder Industry
(Subsample 3)



See Table 1 for SIC definition and Subsample 3 derivation.

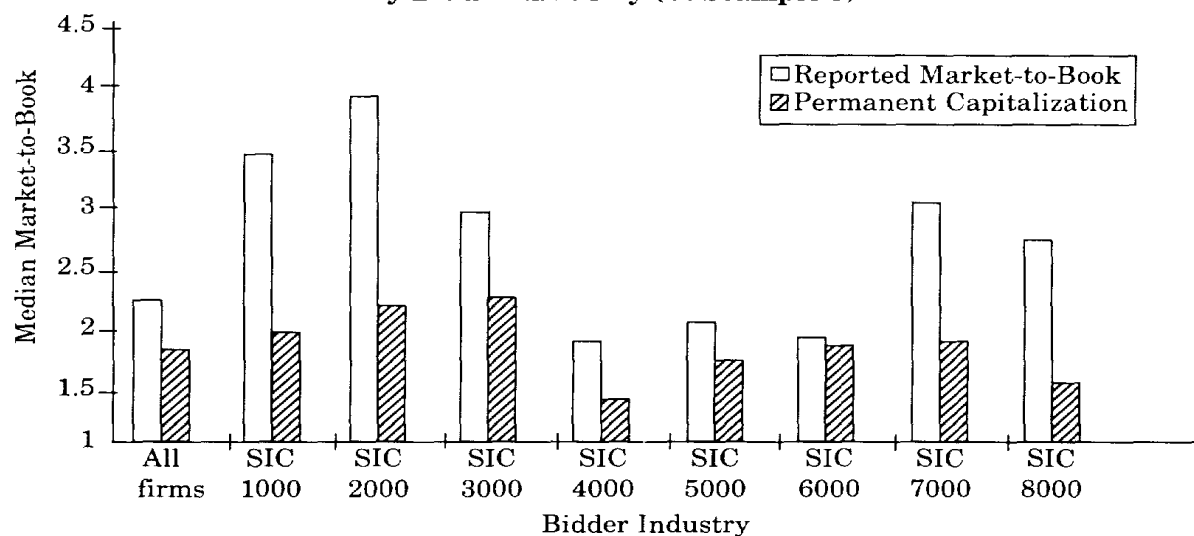
Earnings per share is recalculated assuming amortization of unrecognized net assets (as defined in Table 3).

ratio).¹² We calculate the bidder's market-to-book ratio as the ratio of the bidder's market value to book value at the end of the year following the acquisition. The elimination of the pooling method in Figure 5 has a significant effect on bidder market-to-book ratios. The typical bidder's market-to-book ratio decreases from 2.24 to 1.86, a 17 percent decline in bidder market-to-book ratio. Effects on bidder market-to-book, however, vary widely across industries. Per acquisition, four industries (the natural resources industry [SIC 1000], the food, textile, and chemicals industry [SIC 2000], the hotel and other services industry [SIC 7000], and the health and engineering industry [SIC 8000]) have decreases in bidder market-to-book ratios in excess of 30 percent, whereas the financial services industry (SIC 6000) has only a 6 percent decrease. Similar to evidence for firm profitability ratios, this evidence suggests that eliminating the pooling method affects firm capitalization ratios in all industries, but there is a wide dispersion of the magnitude of these effects.¹³

¹² We also analyzed the effects of various amortization periods for the unrecognized assets (e.g., 40, 20, and ten years) on bidder market-to-book ratio. Amortization of assets previously not recognized by the pooling method does not have an appreciable effect on bidder market-to-book ratio in the year following the acquisition, and thus, results of these analyses are not reported. Nonetheless, as the unrecognized assets are amortized, the market-to-book ratio, of course, converges to the unadjusted bidder market-to-book ratio.

¹³ Although evidence in Figures 3, 4, and 5 reflects the effects of eliminating the pooling method on bidder profitability and capitalization ratios for typical acquisitions, these figures understate the magnitude of the effect that such elimination would have on bidders with multiple pooling acquisitions, a group that accounts for approximately 57 percent of the 1,342 sample acquisitions and 48 percent of the aggregate acquisition value. For example, assuming a ten-year amortization period for unrecognized assets, the typical bidder with multiple pooling acquisitions of publicly held targets experiences a 28 percent decrease in return on equity from eliminating the pooling method. Thus, evidence suggests that eliminating the pooling method will have significant effects on bidder profitability and capitalization ratios and, predictably, more pronounced effects for those firms engaging in multiple pooling acquisitions.

FIGURE 5
Median Recalculated Market-to-Book
by Bidder Industry (Subsample 3)



See Table 1 for SIC definitions and Subsample 3 derivation.

Market-to-book is recalculated by adding unrecognized assets (Table 3) to the book value of the bidder.

Effects of Merger-of-Equals Restrictions

We analyze restricting the use of the pooling method to combinations satisfying merger-of-equals criteria (i.e., pooling treatment restricted to combinations of corporations with similar market values) to illustrate the effects of alternative restrictions on the use of the pooling method. Given that other standard-setting bodies currently allow the pooling method for merger of equals, we view this as a possible compromise in the current pooling debate. Table 4 presents one version of how a merger-of-equals restriction could impact pooling acquisitions. For comparative purposes, Column 1 of Table 4 presents the number of acquisitions from Subsample 2 that qualify for pooling treatment under APB No. 16. Column 2 presents the number of these acquisitions that would qualify under a merger-of-equals restriction limiting pooling to acquisitions where the value of the smaller firm is within 20 percent of the value of the larger firm.¹⁴ Column 3 reports the number of acquisitions that would qualify under a more stringent restriction that limits the pooling method to combinations where the value of the smaller firm is within 10 percent of the value of the larger firm.

Table 4 suggests that a 20-percent-size restriction would considerably reduce the number of pooling acquisitions (from 575 qualifying sample acquisitions to 332). More importantly, a 20-percent-size restriction would drastically reduce the value of pooling acquisitions (from \$272 billion to \$58 billion) and the magnitude of unrecognized assets (from \$187 billion to \$38 billion). This represents a 79 percent reduction in the value of

¹⁴ We calculate the bidder's value as the bidder's market value of outstanding common shares at the fiscal year-end prior to the acquisition. The target's value is the value of the consideration paid for its outstanding common shares. In all but 21 of the 575 acquisitions in Subsample 2 the bidder's value is greater than the target's value.

TABLE 4
Comparison of Current Limits with Size Restrictions on Pooling Acquisitions
(Subsample 2)

Bidder Industry Affiliation	Type of Pooling Restriction		
	Current Limits APB No. 16	Similar Size 20% of Value	Similar Size 10% of Value
SIC 1000 Pooling acquisitions	10	1	0
Acquisition value	\$ 7.0	\$ 0.1	\$ 0.0
Unrecognized assets	\$ 5.4	\$ 0.0	\$ 0.0
SIC 2000 Pooling acquisitions	25	11	9
Acquisition value	\$ 13.2	\$ 1.6	\$ 1.0
Unrecognized assets	\$ 10.2	\$ 1.1	\$ 0.7
SIC 3000 Pooling acquisitions	94	50	35
Acquisition value	\$ 57.6	\$20.8	\$ 6.6
Unrecognized assets	\$ 45.8	\$16.3	\$ 5.2
SIC 4000 Pooling acquisitions	21	9	5
Acquisition value	\$ 56.1	\$ 1.6	\$ 0.6
Unrecognized assets	\$ 40.4	\$ 1.3	\$ 0.5
SIC 5000 Pooling acquisitions	36	22	13
Acquisition value	\$ 12.3	\$ 2.9	\$ 2.1
Unrecognized assets	\$ 9.2	\$ 2.2	\$ 1.6
SIC 6000 Pooling acquisitions	288	186	131
Acquisition value	\$ 95.1	\$24.7	\$13.7
Unrecognized assets	\$ 51.0	\$12.1	\$ 5.9
SIC 7000 Pooling acquisitions	69	39	23
Acquisition value	\$ 19.3	\$ 4.8	\$ 2.1
Unrecognized assets	\$ 15.8	\$ 4.0	\$ 1.7
SIC 8000 Pooling acquisitions	32	14	8
Acquisition value	\$ 11.9	\$ 1.5	\$ 0.5
Unrecognized assets	\$ 9.4	\$ 1.1	\$ 0.3
Total pooling acquisitions	575	332	224
Total acquisition value	\$272.5	\$58.0	\$26.7
Total unrecognized assets	\$187.2	\$38.1	\$16.0

Amounts are in billions of dollars. Bidder value is the bidder's market value of common stock outstanding computed at fiscal year-end prior to the acquisition. Target value is the target's acquisition price.

See Table 1 for SIC definitions and derivation of Subsample 2.

Acquisition value and unrecognized assets are defined in Table 3.

pooling acquisitions and an 80 percent reduction in the value of unrecognized assets. A more stringent size restriction, such as the 10 percent limitation in column three, has an even more dramatic effect on acquisition value and unrecognized assets (a 90 and 91 percent reduction, respectively). Thus, evidence suggests that restricting pooling treatment via a relative size criterion may have a significant effect on the number and value of pooling acquisitions as well as the unrecognized assets generated by these acquisitions. Nevertheless, a size restriction, depending on its exact implementation, still allows a number of acquisitions to be accounted for under the pooling method.

CONCLUSION

Accounting standard setters have become increasingly concerned with the perceived manipulation of financial statements and the lack of comparability across firms' financial statements that have resulted from having two acquisition accounting methods. Consistent with these concerns, the FASB issued an Exposure Draft in September 1999 to eliminate the pooling-of-interests method. Using a comprehensive set of pooling acquisitions by public corporations over the period 1992 through 1997, this study analyzes the financial statement effects of eliminating or severely restricting the pooling method of accounting for business combinations. Although we make no assumptions regarding the effects of pooling restrictions on *either* acquisition activity *or* acquisition price, this study provides a useful starting point for assessing the effects of different pooling restrictions. Our evidence suggests that firms avoid recognition of significant amounts of target firms' purchase prices, both in aggregate and per acquisition, via the pooling method. Further, we document that these unrecognized assets are significant relative to the bidder's book value and that the quantity and dollar magnitude of pooling acquisitions have increased dramatically in recent years. With respect to industry-specific analyses, we find that the financial services industry accounts for approximately one-third of all pooling acquisitions in number and value.

The effects on bidder financial-reporting ratios of precluding use of the pooling method for a typical acquisition are substantial, though varying widely across industries. Decreases in return on equity, assuming a ten-year amortization period for unrecognized assets, range from a 65 percent decline for the hotel and services industry to a 13 percent decline for the financial services industry.¹⁵ For earnings per share, the effects are more moderate than are those on return on equity. Decreases, assuming a ten-year amortization period, range from a 42 percent decrease for the food, textile, and chemicals industry to an 8 percent decrease for the financial services industry. For market-to-book ratios, four industries (the metal and mining industry; the food, textile, and chemicals industry; the hotel and other services industry; and the health and engineering industry) have decreases in bidder market-to-book ratio in excess of 30 percent, whereas the financial services industry has only a 6 percent decrease. The relatively small effects for the financial services industry suggests that the industry's opposition to eliminating the pooling method may be more driven by the quantity and aggregate magnitude of pooling acquisitions than per-acquisition effects. Overall, we find that eliminating the pooling method affects firm profitability and capitalization ratios in all industries, but there is a wide dispersion of the magnitude of these effects across industry.

Finally, we document that restricting pooling treatment via a relative size criterion significantly decreases the number and value of pooling acquisitions as well as the unrecognized assets generated by these acquisitions. Nevertheless, we find that a size restriction, depending on its exact implementation, can simultaneously allow a number of acquisitions to be accounted for under the pooling method. Regardless of the type of restriction, the magnitude of past pooling transactions, both in total dollars and relative to the individual bidder's financial condition, lends credibility to the contention that the imposition of pooling restrictions has the potential to seriously impact firm financial statements and related financial-reporting ratios.

¹⁵ These effects, of course, decrease with a longer amortization period for unrecognized assets.

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