## October 2014

# 2014 U.S. Goodwill Impairment Study 

## Introduction

Duff \& Phelps and the Financial Executives Research Foundation (FERF) first published the results of their comprehensive Goodwill Impairment Study in 2009. This inaugural study examined U.S. publiclytraded companies' recognition of goodwill impairment at the height of the financial crisis (the end of 2008 and the beginning of 2009), and featured a comparative analysis of the goodwill impairments of over 5,000 companies (by industry), as well as the findings of a survey of Financial Executives International (FEI) members.

The 2010 Goodwill Impairment Study extended the time horizon over which goodwill impairments were studied to five years, enabling an assessment of goodwill impairment trends over time. In addition, the 2010 and 2011 studies included analyses of the relative performance of companies over the 12-month periods before and after the month of a goodwill impairment charge. "Industry Spotlights" were created in 2012, along with cross-tabulation analyses. The 2013 edition introduced two new tables summarizing comparative statistics by industry over a five-year period.

Now in its sixth year of publication, the 2014 U.S. Goodwill Impairment Study continues to examine general and industry goodwill impairment trends through December 2013, as well as reporting the 2014 results of the annual survey of FEl members.

Specially featured in this year's edition are highlights from a Duff \& Phelps independent study, which analyzes the extent to which U.S. publicly-traded companies are using the optional "Step 0" of the goodwill impairment test.

## Inside

| 3 | 4 | 7 | 8 | 16 |
| :---: | :---: | :---: | :---: | :---: |
| Goodwill Landscape | Step 0 Study | AICPA Goodwill Impairment Guide Chapter 3: Qualitative Assessment | Survey Results | Summary Statistics by Industry |
| 20 | 32 | 36 | 37 |  |
| Industry Spotights | Goodwill Impairments by Sub-Industry | About Duff \& Phelps | About Financial Executives Research Foundation, Inc. |  |

## Introduction

## Purpose of the 2014 Study

- To report and examine the general and industry trends of goodwill and goodwill impairment of U.S. companies.
- To report the 2014 results of the annual goodwill impairment survey of FEl members (the "2014 Survey").

Highlights of the 2014 Study
U.S. public companies recorded $\$ 21$ billion of goodwill impairment ("GWI") in calendar year 2013, representing a 59\% decline from the $\$ 51$ billion reported in the prior year. ${ }^{1}$ In addition, the number of GWI events fell by $18 \%$, resulting in an average impairment amount of $\$ 108$ million for 2013, which is now approaching the average low of \$86 million in 2009.

The 2013 aggregate impairment amount was the lowest level seen since 2008, at the height of the financial crisis, and is also consistent with generally observed U.S. macroeconomic trends. The U.S. economic outlook continued to improve in 2013 and was accompanied by an exceptional performance by U.S. stock markets. In fact, the S\&P 500 Index level surged by $30 \%$ in 2013, its biggest annual advance since 1997 in percentage terms.

Much of the 2012 total GWI was dominated by the top three impairment events, which accounted for $47 \%$ (or $\$ 24$ billion) of the aggregate amount. In contrast, the concentration of GWI attributable to the three largest impairment events declined to 22\% (or \$4.7 billion) in 2013.

Materials jumped from fifth place in 2012 to first in 2013 as the industry with the highest amount of GWI (\$4.5 billion, or $22 \%$ of 2013's aggregate impairments in just eight events). It replaced Information Technology, which fell to sixth place in 2013, in the
absence of its two largest impairments in 2012. Excluding those two events would have resulted in a GWI amount of \$2.1 billion, which is more in line with the $\$ 1.4$ billion recorded in 2013 for this industry. In 2013, Industrials had the largest percentage of companies that impaired goodwill (7\%) followed by Consumer Discretionary and Information Technology (both at 6\%).

## 2014 Study: Company Base Set Selection and Methodology

Standard \& Poor's Research Insight ${ }^{\circledR}$ and S\&P Capital $I^{\text {TM }}$ databases were the primary sources of data for the 2014 Study. ${ }^{2}$ The following screens were applied to narrow the dataset:

- American Depositary Receipts (ADRs) and exchange traded funds (ETFs) were excluded from the Research Insight ${ }^{\text {® }}$ database leaving 8,205 U.S.-based, U.S.-traded companies as of April 23, 2013.
- From this set, companies whose ticker was solely comprised of numbers, companies which did not have a Global Industry Classification Standard (GICS ${ }^{\circledR}$ ) designation, and companies which did not have returns data and market capitalization data over the study period were excluded, resulting in a base set of 5,153 companies. ${ }^{3}$
- These companies, which represented over 92\% of U.S.-based, U.S.-traded market capitalization as of December 2013, were used to calculate all ratios and statistics in the 2014 Study.
- Note that calendar years (rather than "most recent fiscal year") were used in all cases in order to examine impairment values during a specific period of time, regardless of company-specific choices of fiscal years.


## Highlights of the 2014 Survey

The 2014 Survey continued to monitor FEI members' use of the optional qualitative test when testing goodwill for impairment (a.k.a. "Step 0"). Notably, the 2014 Survey indicates a broader use of the Step 0 test. In particular, public company use of Step 0 increased from $29 \%$ in the 2013 Survey to $43 \%$ this year. This is also consistent with Duff \& Phelps' independent Step 0 Study, which found that $41 \%$ of U.S. public companies applied Step 0 in 2013, increasing from $33 \%$ in 2012 . Use of Step 0 by private company respondents in the 2014 Survey also increased from $22 \%$ to $29 \%$. In addition, this year's survey reports that 78\% of the companies applying Step 0 to some or all reporting units believe that it meets the stated objective of reducing costs.

It is noted that a large proportion of both public ( $42 \%$ ) and private ( $31 \%$ ) companies prefer to bypass Step 0 altogether, and proceed directly to the quantitative Step 1 test. If we focus strictly on public company respondents, 75\% of those who do not prefer the quantitative test, have elected to apply Step 0.

Recent and Future Developments in Goodwill Accounting
In January 2014, the FASB issued Accounting Standards Update (ASU) No. 2014-02, Intangibles-Goodwill and Other (Topic 350): Accounting for Goodwill (a consensus of the Private Company Council). Among other provisions, this ASU allows private entities to elect an accounting alternative to amortize goodwill on a straight-line basis over 10 years (or less if the entity demonstrates another useful life is more appropriate).

Additional changes may be in the horizon, as FASB is considering the results of the IASB's post-implementation review of IFRS 3 Business Combinations, before revisiting the accounting for goodwill by public companies.

[^0]
## Goodwill Landscape

## Goodwill Landscape

The graphic below captures the evolution of goodwill from 2009 through 2013. If one examines this graphic from the top down, the source of goodwill is provided with a deal summary (both number of deals and value) for transactions involving a controlling interest of $50 \%$ or more, acquired by U.S. incorporated publicly-traded companies [see M\&A Activity].

Based on our criteria, deal activity saw a decline in both volume and value in 2013. While the number of closed deals shrank by $9 \%$, the deal value decreased by a sharp $47 \%$, leading to a drop in additional goodwill recorded on balance sheets from $\$ 211$ billion in 2012 to $\$ 147$ billion in 2013. Interestingly, this is in stark contrast to the trend seen for the overall U.S. M\&A market during 2013.
Most 2013 reviews of U.S. M\&A deal activity found in the financial press tend to use
different parameters to compile data. Specifically, they typically looked at 2013 announced deals (rather than closed), and included transactions for any ownership interest (both controlling and minority) by both public and private company acquirers. If one were to use such parameters, the deal value in the U.S. M\&A market would have increased for 2013 (in contrast to the trend seen in the graphic below), while the number of deals would still suffer a small decline.

The Goodwill Activity bar chart shows the annual aggregate GWI (see amounts in the red font, shaded area), as well as the amount of goodwill added annually (see amounts in blue font), with the end-of-year (EOY) aggregate goodwill balance sliding along the scale. Notably, 2013 marks the lowest aggregate impairment amount since the level reported in 2008, at the height of the financial crisis.

A limited number of events can have a dramatic impact on the annual impairment amounts. To provide perspective, the graphic below highlights the concentration of GWI amounts recorded in the top three events [see Top 3 GWI Concentration, as shown in the middle panel]. For instance, the top 3 events accounted for $22 \%$ of the 2013 aggregate GWI amount, in contrast to 47\% in 2012.

Lastly, while not a sole or definitive indicator of impairment, market capitalization should not be ignored during a goodwill impairment test. Market-to-book ratios for both the entirety of the 2014 Study as well as for those companies that recorded a GWI are also provided [see Median Market-to-Book in the bottom panel of the graphic].


[^1]
## Step 0 Study

## Overview of the Step 0 Study

In September 2011, the FASB issued Accounting Standards Update No. 2011-08 Intangibles-Goodwill and Other (Topic 350): Testing Goodwill for Impairment ("ASU 2011-08"). This provided public and private companies with the option to first assess qualitative factors to determine whether the fair value of a reporting unit is not "more likely than not" (greater than a $50 \%$ likelihood) less than its carrying amount. This is commonly referred to as "Step 0".

In recent years of performing our joint goodwill impairment study with FERF, we began to assess the usage of Step 0 as part of our FEl member survey. Our Step 0 Study expands upon the FEl surveys by evaluating the disclosures of a random selection of 355 U.S. public companies reporting under U.S. GAAP that carry goodwill on their balance sheets. It is noteworthy that while this study was more expansive than the FEI surveys and has statistical significance, the indications about the use of Step 0 in both are quite comparable.

We performed the Step 0 Study by analyzing the disclosures of each of the 355 companies in the sample, independently for both 2013 and 2012. In doing so, we were mindful to distinguish between companies that discussed their assessment of qualitative factors in connection with monitoring for triggering events for goodwill impairment testing vs. the assessment of the same factors when applying Step 0 as part of the annual goodwill impairment test. ASU 2011-08 fully aligns the events and circumstances that a company should consider in either situation.

## Main Takeaways: Step 0 Study Results

Based on our analysis, we observed that the use of Step 0 is relatively broad and has been increasing.

## Step 0 Users



We also found that companies with a market-to-book ratio of 2.0 or greater were almost twice as likely to apply Step 0.

## The Detail: Classification of Disclosures

The cornerstone in our analysis was par. BC24 of ASU 2011-08, which states:
"...In connection with the annual testing requirement, the Board intends for an entity to make a positive assertion about its conclusion reached and the events and circumstances taken into consideration if it determines that the fair value of a reporting unit is not more likely than not less than its carrying amount." [Emphasis added]

Companies making such a positive assertion are unambiguously Step 0 Users. Other companies' disclosures varied greatly in the nature of the discussion and information provided. The evaluation of disclosures required significant judgment at times. Based on our analysis of the respective disclosures, we classified each company into one of the following five categories:

## Definite User

The company made a positive assertion that Step 0 was applied to some or all of its reporting units and no further goodwill impairment testing was required. We further categorized these companies as "Tier 1 " if they made the positive assertion in their most recent fiscal year (2013) and "Tier 2" if they made the assertion in their prior fiscal year
(2012). The rationale for this is that a company may need to periodically establish a quantitative benchmark, or may at times need to resort to a quantitative test, none of which take away from the fact that the company has demonstrated that they are a Step 0 User when the circumstances allow for it.

## Probable User

The company described Step 0 as an integral part of its impairment testing process (i.e., Step 0 was being applied). However, the disclosures stopped short of making a positive assertion with regards to the outcome of Step 0.

## Possible User

The company described Step 0 in general terms but the discussion did not portray the qualitative assessment as an integral part of the impairment testing process.

## Silent

The company did not mention Step 0 in any form in its $10-\mathrm{K}$ filing for the respective year.

## Opt-out User

The company made an explicit statement that it chose not to apply Step 0 for the respective year.

## More Detail: Observations from the Study

Overall, Step 0 Users (comprised of Definite Users and Probable Users) increased from $33 \%$ (2012) to $41 \%$ (2013) (see Figure 1). Further, it is possible that not all companies are aware of FASB's intent to make a positive assertion about the use of Step 0, since this guidance is included in the Basis for Conclusions of ASU 2011-08 and is not incorporated in the Accounting Standards Codification. It is also possible that there are some Step 0 Users among the Possible Users and Silent groups, thus the results are potentially on the conservative side.

## Step 0 Study

Figure 1: Step 0 Users (Definite and Probable Users) increased from 33\% to $41 \%$ based on our assessment of Form 10-K filings for the two most recent fiscal years of a sample group of companies filing under U.S. GAAP


Definite Users increased from 22\% (2012) to 32\% (2013). Tier 2 Definite Users for 2013 were $5 \%$ and are included in the total of $32 \%$ (see Figure 2). We did not make a similar Tier 2 adjustment for 2012 as that would have required the analysis of 10-Ks for 2011, which was out of our scope. Any Tier 2 adjustment for 2012 would likely be greater than 0\% but less than 5\%.

Possible Users fell by half (from 32\% in 2012 to $14 \%$ in 2013); the Silent group increased by a third (from 27\% in 2012 to $36 \%$ in 2013), while the Opt-out Users held steady.


Further Insights
We performed additional analysis by following the companies in the sample from 2012 into 2013 and observing whether, and if so how, their Step 0 disclosures changed. While companies in the sample exhibited some "stickiness" with respect to a category year-to-year, Step 0 usage did increase overall:

- Nearly 80\% of the Definite Users in 2012 remained such in 2013.
- Just over one-fifth of Probable Users in 2012 became Definite Users in 2013.

Figure 2: Step 0 Study Summary

|  | 2012 |  | 2013 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number | Percentage | Number | Percentage |
| Definite Users - Tier 1 | 73 | 22\% | 94 | 27\% |
| Definite Users - Tier 2 |  |  | 16 | 5\% |
| Definite Users | 73 | 22\% | 110 | 32\% |
| Probable Users | 37 | 11\% | 33 | 10\% |
| Step 0 Users | 110 | 33\% | 143 | 41\% |
| Possible User | 106 | 32\% | 50 | 14\% |
| Silent | 90 | 27\% | 126 | 36\% |
| Opt-out User | 27 | 8\% | 27 | 8\% |
| Total | 333 | 100\% | 346 | 100\% |
| Excluded from study (insufficient information) | 22 |  | 9 |  |
| Total Study Sample | 355 |  | 355 |  |

[^2]- The majority (62\%) of Probable Users in 2012 remained in the same category in 2013.
- Of the 2012 Possible Users, $41 \%$ remained such in 2013, while 38\% became Silent about the use of Step 0.
- Of the Opt-out Users in 2012, 78\% remained in the same category in 2013.


## The Trend: Current and Future

Practically, companies could take advantage of Step 0 if the reporting unit (or entity) has adequate excess of fair value over carrying value; and/or, has not been affected by factors that are difficult to evaluate qualitatively in the aggregate; or, is not impaired. Thus, in part, Step 0 usage is a function of the performance of a specific reporting unit/company, but could also be a reflection of the health of an entire industry and the overall economy.

However, another factor impacting Step 0 usage has to do with behavior, experience, and an overall level of comfort with the assessment process. With more experience in the application of the qualitative assessment both amongst preparers and auditors and an improved economic outlook, Step 0 use may continue to expand. Further, the recent publication of implementation guidance on the qualitative assessment (Chapter 3 of the AICPA's Accounting \& Valuation Guide, Testing Goodwill for Impairment, issued in December 2013 addresses the practical application of Step 0) may also contribute to a continued uptick in Step 0 usage.

## Step 0 Study

## 2,635 Companies with Goodwill

 95\% Confidence Level 5\% Margin of Error 355 Sample SizeBehind the Study: Sampling Methodology In May 2014, we performed a search in the Standard \& Poor's Capital IQ database for all U.S. incorporated firms traded on all U.S. Exchanges which reported a positive goodwill balance in their latest annual reporting period. The identified firms were narrowed further to those that (1) reported under U.S. GAAP and (2) reported goodwill for both FY 2012 and FY 2013. This resulted in a total population of 2,635 companies.

A standard sample size calculator was used to determine the recommended sample size for a population of 2,635 , a confidence level of $95 \%$ and a margin of error of $5 \%$. The recommended sample size was 335 companies. We randomly selected a sample of 355 firms (rather than 335) to preserve the sample size and its statistical power, in case some companies needed to be eliminated from the analysis. A few companies were indeed excluded from the sample because of insufficient information for the purposes of our Step 0 Study (e.g., over-the-counter company with no current information). This left 333 companies in the final sample for 2012 and 346 companies for 2013. The same companies were evaluated for both years providing continuity in the analysis.

## Sample Quality: Demographics Assessment

Certain demographic attributes of the total population were selected for comparison to those of the study sample to evaluate how representative the sample was of the total population. These attributes included:

- Market Capitalization
- Primary Industry Sector
- Carrying Amount of Goodwill
- Goodwill-to-Total Assets
- Auditor

The companies within the sample displayed a very similar distribution of these attributes relative to those of the total population.

## Definite Users Attribute Assessment

We also evaluated the distribution of the same five attributes above for the Definite Users in 2013 (Tier 1, N=94). We did not observe a clear correlation between any of these attributes and the companies' usage of Step 0.

For example, we found that Definite Users as a percentage of the sample companies within each industry were relatively consistent, representing, on average, $26 \%$ of such sample companies.

Likewise, the Definite Users represented, on average, $26 \%$ of the sample companies when considering the sample's distribution by auditor.

## Market-to-Book Value of Equity

This ratio was the only attribute that provided some insight into the use of Step 0 . This is not surprising, as the market-to-book ratio is an indication of the "cushion" that a company has in place: the excess of fair value of the
company's capitalization over its book value, or the excess of a reporting unit's fair value over its carrying value (measured on an equity level).

Since the first step of the ASC 350 test compares the book value of a reporting unit with its fair value, the market-to-book ratio has always been a meaningful indicator to evaluate, albeit on an overall entity level.

Similarly, when considering the use of Step 0, a higher market-to-book ratio for the reporting unit or overall entity, as appropriate, would enter into the analysis as a factor with a positive impact on the qualitative assessment, all else equal.

> Companies with a market-tobook ratio of 2.0 or greater were almost twice as likely to be a Definite User of Step 0 .

For market-to-book ratios of less than 2.0, Definite Users represented approximately $18 \%$ of the sample companies, on average (see Figure 3).

For market-to-book ratios of 2.0 or above, Definite Users represented approximately $34 \%$ of the sample companies, on average.

For a copy of the full Step 0 Study please go to www.duffandphelps.com/Step0Study.

Figure 3: Market-to-Book Ratio for Definite Users


# Highlights from "Chapter 3: Qualitative Assessment" of the AICPA's Accounting and Valuation Guide, Testing Goodwill for Impairment 

The AICPA Guide on goodwill impairment testing, issued in November 2013, provides implementation guidance on the optional qualitative assessment (Step 0). The objective of Step 0 is to assess if it is not "more likely than not" (greater than a $50 \%$ likelihood) that the fair value of a reporting unit is less than its carrying amount, in which case the quantitative goodwill impairment test is unnecessary. An entity needs to put into place an approach to conduct the qualitative assessment to make the above determination. Chapter 3 of the AICPA Guide illustrates one such possible approach and related thought process:

1: Identify inputs and assumptions that most affect fair value

Initially, an entity would identify which of the valuation method(s) are most appropriate to measure the fair value of the respective reporting units. These valuation approaches and techniques and their weighting can vary for each reporting unit.

Next, the key inputs and assumptions to each valuation method (i.e., those that affect fair value the most) are identified within each reporting unit.

An entity may start with considering the methods, weightings, inputs and assumptions used in the last quantitative test, but then must determine if they are still relevant or if any changes to these have occurred since. Changes to the inputs and assumptions could have occurred due to, for example, industry or market changes, or from entityspecific events, such as changes to the composition of a reporting unit.

Inputs and assumptions into a discounted cash flow analysis could include, but may not be limited to, cash flow projections, the terminal year growth rate, and the discount rate. For a market approach, these could include multiples and the metrics to which they are applied. Sensitivity analyses of the key inputs and assumptions and their impact on the fair value of the reporting unit may also be a useful tool.

2: Identify relevant events and circumstances that may have an impact on those inputs and assumptions
The same factors that would be monitored as goodwill impairment test triggers could serve as a starting point for events and circumstances to be considered as part of a Step 0 analysis, in addition to more specific ones. Other relevant factors might include a recent fair value calculation, the time elapsed since the fair value was calculated, the extent of any interim adverse changes, and the amount of "cushion" at the reporting unit (the amount by which fair value exceeds the carrying amount).

## 3: Weigh the events and circumstances

Generally, no individual factors and circumstances are determinative of whether a quantitative test is needed. In this step, the relevant inputs and assumptions (e.g. discount rate) affected by each of the identified events and circumstances (e.g. interest rate environment) would be given a weight (e.g. high, medium, low), and their impact on the fair value measurement would be assessed (e.g. negative or positive).

Ultimately, however, all available evidence, both positive and negative, is to be considered in the aggregate, to determine whether, based
on the weight of the evidence, an entity passes Step 0 . This requires judgment as well as consideration of the extent to which the evidence considered can be objectively verified.

## 4: Conclude on the totality of events and circumstances

If, after assessing the totality of the relevant events and circumstances, an entity determines that it is not more likely than not that the fair value of a reporting unit is less than its carrying amount (i.e. the entity passes Step 0), there is no need to proceed to the first (quantitative) step of the goodwill impairment test. The extent of analysis and related documentation to reach this conclusion would vary depending on the situation, though it is believed that documentation of Step 0 is only required when an entity is relying on Step 0 . If the entity relies on Step 0, per the provisions of paragraph 24 of the Basis for Conclusions of ASU No. 2011-08, it needs to make a positive assertion about its conclusion reached and the events and circumstances taken into consideration.

## Other considerations

Chapter 3 also clarifies that a comparison to market capitalization generally remains a prudent check of the aggregate value of the entity's reporting units; thus, an entity applying Step 0 to some or all of its reporting units may have to consider high-level fair value estimates for such reporting units, to gain comfort with the outcome of the overall analysis. Chapter 3 also includes a detailed example illustrating the application of Step 0 to three reporting units of a company.

## 2014 Survey Results

During the summer of 2014, an electronic survey on goodwill impairments was conducted using a sample of FEI members representing both public and private companies.

This survey is performed annually and provides insight into the reasons for goodwill impairments and the valuation techniques used in the impairment analysis.

Notably, the 2014 Survey indicates a broader use of the Step 0 test (see Question 15). Public company use of Step 0 increased from $29 \%$ in the 2013 Survey to $43 \%$ this year. Private companies' use of Step 0 also increased from $22 \%$ to $29 \%$. This may be an indication that companies have grown accustomed to the qualitative test.

In addition, 78\% of the companies applying Step 0 to some or all reporting units believe that it meets the stated objective of reducing costs (see Question 14).

Question 2: What is the revenue for your company?
( $\mathrm{N}=152$ )


Private Company (88)

| Industry | $\%$ of Total |
| :--- | ---: |
| Manufacturing | $23 \%$ |
| Professional Services | $7 \%$ |
| Technology | $6 \%$ |
| Consulting/Employment Agency | $5 \%$ |
| Energy/Utilities/Oil \& Gas | $5 \%$ |
| Real Estate | $5 \%$ |
| Aerospace/Defense | $3 \%$ |
| Consumer Goods | $3 \%$ |
| Distribution | $3 \%$ |
| Education | $3 \%$ |
| Insurance | $3 \%$ |
| Advertising | $2 \%$ |
| Arts/Entertainment/Media | $2 \%$ |
| Automotive | $2 \%$ |
| Banking/Financial Services | $2 \%$ |
| Capital Products (Equipment) | $2 \%$ |
| Construction/Engineering | $2 \%$ |
| Healthcare Services | $2 \%$ |
| High-Tech or Software | $2 \%$ |
| Retail | $2 \%$ |
| Service | $2 \%$ |
| Ag./Forestry/Fishing/Hunting | $1 \%$ |
| Food/Restaurant | $1 \%$ |
| Internet/Multimedia | $1 \%$ |
| Medical/Pharmaceutical | $1 \%$ |
| Metals | $1 \%$ |
| Non-Profit Organizations | $1 \%$ |
| Personal Services | $1 \%$ |
| Research \& Development | $1 \%$ |
| Telecommunications | $1 \%$ |
| Wholesale |  |

Question 3: Is your company public or private?
( $\mathrm{N}=152$ )


## Survey Results

Question 4: How many reporting units do you have as of the most recent reporting period? Question 5: At what level is your reporting unit structure defined?
( $\mathrm{N}=152$ )


Note: the percentages above represent the distribution of responses within each of the categories in the graph

## Sample of Survey Participants

Similar to the 2013 Survey, larger entities (revenues in excess of $\$ 1$ billion) make up two-thirds of public company respondents. (see Question 2). In contrast, private companies, which made up $58 \%$ of all respondents, tended to be in the smallest size category ( $49 \%$ of private companies had revenues lower than $\$ 100$ million).

Question 7: Has your company recognized goodwill impairments during your most recent annual reporting period? ( $\mathrm{N}=152$ )


The largest proportion of companies (public or private) within each group had between two and five reporting units (see Question 4). Overall, nearly two-thirds of respondents (66\%) define reporting units exclusively at the operating segment level.

8.6\% of public companies
with goodwill recorded
GWI (Table 1) vs. 30\%
for public company respondents (Question 7)

Question 6: Do you use a valuation consultant? ( $\mathrm{N}=150$ )


- Yes
$\square$ No

Goodwill Impairment Trends and Causes
Consistent with improvements seen in the general U.S. macroeconomic environment, the proportion of public companies recognizing an impairment declined from 37\% in the 2013 Survey to 30\% this year. Impairment rates for private companies continued their downward trend, declining from 23\% last year to $15 \%$ in 2013 (see Question 7). The largest proportion of respondents continued to cite factors specific to the reporting unit as the reason for taking an impairment (see Question 8).

Question 8: If your response to question 7 was yes, what was the reason for the impairment?
( $\mathrm{N}=31$ )


Overall market downturn
General industry downturn
Factors specific to the reporting unit(s)

## Survey Results

Question 9: In your latest goodwill impairment analysis (interim or annual), by what margin did the aggregate fair value of the reporting units exceed their carrying value? ( $\mathrm{N}=142$ )


Question 11: The AICPA recently published an Accounting and Valuation Guide, "Testing
Goodwill for Impairment" providing best practices guidance on this topic. You are:
( $\mathrm{N}=150$ )


Question 10: Do you anticipate additional goodwill impairments during an upcoming interim or annual test? ( $\mathrm{N}=148$ )


## Goodwill Impairment Guide

Awareness of the AICPA Accounting and Valuation Guide - Testing Goodwill for Impairment has increased since last year's survey (see Question 11). This year, 51\% of private company respondents were aware of the guide, a notable increase from 35\% last year. Public company respondents' awareness of the guide also increased from 61\% last year to $69 \%$ in the 2014 Survey. This AICPA guide was issued in final form in November 2013 and provides implementation guidance on testing goodwill for impairment, including the application of Step 0.
$59 \%$ of the companies that believed there was a lack of guidance about the application of Step 0 were not aware of the AICPA Guide.
(Questions 11 and 15)

## Survey Results

Question 12: If control premiums were considered in the analysis, which approach was used?
( $\mathrm{N}=143$ )

| A general control premium was derived from market- <br> based studies | Public | Private |
| :--- | :---: | ---: |
| A specific analysis of incremental cash flows derived <br> from improving current operations | $33 \%$ | $5 \%$ |
| A specific analysis of incremental cash flows available <br> by combining the operations of the reporting unit with <br> the buyer | $2 \%$ | $3 \%$ |
| A combination of the above | $22 \%$ | $12 \%$ |
| Control premiums were not considered | $38 \%$ | $80 \%$ |

## Control Premiums

The use of general control premiums by public companies declined significantly from 51\% last year to 33\% in the 2014 Survey. Further, public companies that did not consider a control premium increased from 25\% to 38\% (see Question 12).

Whether this trend is the result of improving economic conditions - closing the gap between internal company and stock market valuations - or greater awareness of developing best practices remains to be seen. The Appraisal Practices Board's Valuation Advisory Discussion Draft The Measurement and Application of Market Participant Acquisition Premiums provides an approach to quantifying and supporting control premiums based on specific cash flows, rather than broad-based market studies.

## Magnitude of Control Premium

Public company responses provide a broad basis to assess the magnitude of control premiums through comparisons to market capitalization. The percentage of those with a premium of less than $10 \%$ or greater than $40 \%$ remained similar to the 2013 Survey. However, those assuming a control premium between 10\% and 25\% increased from 38\% to $51 \%$, while those assuming a premium of $25 \%$ to $40 \%$ declined by more than half from 22\% to 10\% (see Question 13).

Question 13: What was the assumed level of control premium above the entity's market capitalization in your latest analysis?

$$
(N=41)
$$



Question 14: Do you believe that the optional qualitative goodwill impairment assessment (Step 0) meets its stated objective of reducing costs?


## Cost Reduction Objective

The optional qualitative assessment (Step 0) was introduced by FASB with the objective of reducing the cost and complexity of performing quantitative goodwill impairment testing. Half of the respondents believed that Step 0 met its stated objective. Notably, however, of those companies that actually applied Step 0, 78\% were satisfied that the cost reduction objective had been achieved.

## Survey Results




Use of Step 0 by public company respondents increased from 29\% in the 2013 Survey to 43\% in the 2014 Survey (Question 15)

| Question 16: If you have never applied Step 0 to any reporting units, will you be considering its use in future periods?$(\mathrm{N}=84)$ |  |  | $\begin{gathered} \text { Yes } \\ (39 \%) \end{gathered}$ | $\begin{gathered} \text { No } \\ (61 \%) \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Demographics for respondents who answered "Yes" within each Respondent Subgroup: |  |  |  |  |  |
| Question | Parameter | Respondent Subgroup | \% Yes | Respondent Subgroup | \% Yes |
| 2 | Revenue | $>\underset{(N=35)}{\$ 500 \mathrm{MM}}$ | 46\% | $\begin{array}{r} \leq \$ 500 \mathrm{MM} \\ (\mathrm{~N}=49) \end{array}$ | 35\% |
| 3 | Company type | $\begin{gathered} \text { Public } \\ (\mathrm{N}=30) \end{gathered}$ | 43\% | $\begin{aligned} & \text { Private } \\ & (\mathrm{N}=54) \end{aligned}$ | 37\% |
| 4 | Number of reporting units | More than One ( $\mathrm{N}=57$ ) | 44\% | $\begin{gathered} \text { One } \\ (\mathrm{N}=27) \end{gathered}$ | 30\% |
| 6 | Who performs the goodwill impairment analysis | Consultant $(\mathrm{N}=31)$ | 48\% | In-house ( $\mathrm{N}=53$ ) | 34\% |

## Application of Step 0

Public company respondents demonstrated a higher usage rate of Step $0(27 \%+16 \%$ $=43 \%)$ relative to those from private companies $(19 \%+10 \%=29 \%)$, as shown in Question 15.

Separately, we addressed the use of Step 0 in 2012 and 2013 by public companies in a dedicated Step 0 Study (see pages 4-6 of this document). Our study indicated that the use of Step 0 continues to increase, and that a large proportion of public companies apply Step 0.

In addition, our independent Step 0 Study corroborated the above usage rate of public company respondents, by indicating that $41 \%$ of public companies applied Step 0 in 2013, increasing from 33\% in 2012.

Notably, a large proportion of both public ( $42 \%$ ) and private ( $31 \%$ ) companies stated that they prefer to bypass Step 0 altogether, and proceed directly to the quantitative Step 1 test. This may be an indication that they have grown accustomed to the quantitative test and in some cases may also see some incremental benefit beyond a compliance exercise.

If we focus strictly on public company respondents, $75 \%$ of those who do not prefer to proceed directly to the quantitative test, have elected to apply Step 0 to some or all of their reporting units.

## Expected Use of Step 0

In general, Step 0 use is expected to continue to increase, since $39 \%$ of those who never applied it previously, will be considering doing so.

In certain cases, higher expected use rates were observed when drilling down to a variety of subgroups, as shown in Question 16.

## Survey Results

## Step 0 Methodology

Public company distribution of responses remained somewhat consistent with last year's survey, with regards to weighting valuation methods when performing the qualitative assessment (see Question 17). The proportion of public respondents giving equal consideration to the income and market approach has increased (from 29\% to 44\%), likely mostly accounted for by a decline in the sole reliance on the market approach (from 21\% down to 9\%).

Private company respondents in this year's survey displayed a significant shift from those responding last year. In the 2013 Survey, 63\% of private companies did not evaluate inputs and assumptions in the context of a specific valuation approach and appeared to have looked only at qualitative factors in general terms when applying Step 0 . In contrast, this percentage declined to $20 \%$ in this year's survey. At the same time, the equal consideration of both the market and income approaches by private companies increased to 36\%, from 0\% last year (see Question 17). The reasons for this shift are not obvious from this survey, but perhaps the increased awareness of the AICPA Goodwill Impairment guide by private companies from $35 \%$ to $51 \%$ might have contributed to this encouraging development (see Question 11).


- There was no impairment for any of the reporting units tested under Step 0
- A Step 1 analysis was required for some reporting units
- A Step 1 analysis was required for all reporting units

Question 17: If you applied Step 0 , which of the following methods did you give the most weight to when identifying and evaluating the inputs and assumptions for your qualitative assessment? ( $\mathrm{N}=57$ )


## Step 0 vs. Step 1

Passing rates for Step 0 remained consistent with last year's survey. Public companies showed a small decline in passing Step 0, from $71 \%$ last year to $61 \%$ this year, but this may be a function of a different composition of respondents year-over-year (see Question 18). Private companies' passing rates for Step 0 were nearly identical: 81\% in last year's survey compared to $80 \%$ this year.

## Survey Results

Question 19: If you apply Step 0 to a reporting unit, how often do you plan on calculating its fair value under a Step 1 test?
( $\mathrm{N}=53$ )


Quantitative Refresh Frequency for Step 0
Public and private companies shared a similar trend in the expected frequency of refreshing their fair value analyses (see Question 19). Compared to last year's survey, public companies moved away from the intent to perform refreshes every 2-5 years, dropping by nearly half (from $43 \%$ to $23 \%$ ), while private companies holding this view also declined by more than half (from $31 \%$ to $13 \%$ ). The portion of companies planning to perform a quantitative refresh only when they failed Step 0 grew relative to 2013 Survey, with public companies moving from $13 \%$ to $33 \%$, while nearly half of private companies plan to do so (from 31\% to 48\%).

Qualitative Impairment Tests for Indefinite-lived Assets

Relative to last year, private companies showed an increase in the use of the traditional fair value test when testing indefinite-lived assets for impairment, from $30 \%$ in 2012 to $42 \%$ in 2013 (see Question 20). This appears to be an almost complete offset to the decline observed in the proportion of private companies that applied the qualitative assessment to all indefinitelived assets (a drop from 28\% in 2012 to $15 \%$ in 2013).

Question 20: Did you apply the optional qualitative impairment assessment to indefinite-lived intangible assets in your most recent analysis (interim or annual)? ( $\mathrm{N}=140$ )


Question 21: If your company is private, are you planning to adopt one or more of the Private Company Council's

| Yes | No |
| :---: | :---: |
| $(61 \%)$ | $(39 \%)$ | goodwill accounting alternatives?

( $\mathrm{N}=84$ )

Demographics for respondents who answered "Yes" within each Respondent Subgroup:

| Question | Parameter | Respondent <br> Subgroup | Respondent <br> Subgroup | $\%$ Yes | 500 |
| :--- | :--- | ---: | ---: | ---: | ---: |
| 2 | Revenue | $\leq \$ 500 \mathrm{MM}$ | $63 \%$ | $>\$ 500 \mathrm{MM}$ |  |
|  |  | $(\mathrm{N}=70)$ |  | $(\mathrm{N}=14)$ |  |

PCC Proposals to Simplify Goodwill Accounting
A significant proportion of private company respondents stated that they plan on adopting one or more of the PCC goodwill accounting alternatives ( $61 \%$ ). This intent was even more noticeable for smaller companies and for those with more than one reporting unit (see Question 21). Private companies having a "cushion" of less than $30 \%$ (i.e., excess of aggregate fair value of reporting units over carrying value) also found the PCC alternatives more attractive. A possible explanation might be that these companies see goodwill impairment looming, absent adopting an accounting alternative.

## Survey Results

We have also performed several cross-tab analyses to draw further insights into specific subsets of the respondents to the 2014 Survey.

The first table compares various responses from small private companies (revenue less than $\$ 100$ million) and large public companies (revenue greater than $\$ 1$ billion). The second table does the same for companies that prefer the quantitative test versus those that applied Step 0 to some or all of their reporting units. It is noted that each line item in these tables represents the respective response category as a percentage of the total for that subgroup. For example, the first line item of the first table shows that $47 \%$ of small private companies have a single reporting unit compared to $2 \%$ of large public companies.

Some highlights of this cross-tab analysis are as follows:
Small Private vs. Large Public Companies

- Almost half of both groups believed that Step 0 meets the stated objective of reducing costs ( $43 \%$ small private and $47 \%$ large public companies). The two groups are also aligned regarding their expected use of Step 0 in the future, if they never used it previously ( $41 \%$ and $43 \%$, respectively).
- Small private companies are far more likely to perform the analysis in-house than large public companies ( $71 \%$ vs. $43 \%$ ); yet they continued to be less aware of the AICPA Goodwill Impairment guide ( $48 \%$ vs. $26 \%$, small private vs. large public companies, respectively).
- Small private companies were more than twice as likely to disregard control premiums altogether in their goodwill impairment analysis ( $82 \%$ vs. $35 \%$ ). This may have contributed to a lower proportion of private companies having a fair value greater than $30 \%$ over carrying value relative to the large public companies ( $18 \%$ vs. $56 \%$ ).


## Prefer Quantitative Test vs. Application of Step 0

An additional series of cross-tab analyses were performed to assess whether there were differing views between respondents that preferred using the quantitative Step 1 test and those that applied Step 0.

- Companies applying Step 0 were twice as likely to believe that Step 0 meets the objective of reducing costs, compared to those that preferred the quantitative test ( $78 \%$ vs. $41 \%$ ).
- Companies applying Step 0 were also $30 \%$ more likely to be unfamiliar with the AICPA Goodwill Impairment guide (42\% of companies applying Step 0 vs. 33\% of companies using the quantitative Step 1).

Selected responses: Private companies with revenue < $\$ 100$ million and Public companies with revenue > $\$ 1$ billion

| Question |  | Small <br> Private <br> $(N=43)$ | Large <br> Public <br> $(N=43)$ |
| :--- | :--- | ---: | ---: |
| 4 | Single Reporting Unit | $47 \%$ | $2 \%$ |
| 6 | Perform analysis in-house | $71 \%$ | $43 \%$ |
| 9 | Excess fair value over carrying amount >30\% | $18 \%$ | $56 \%$ |
| 11 | Not aware of AICPA GWI Guide | $48 \%$ | $26 \%$ |
| 12 | Control premium from market-based studies | $3 \%$ | $40 \%$ |
| 12 | Did not consider control premiums | $82 \%$ | $35 \%$ |
| 14 | Step 0 meets objective of reducing costs | $43 \%$ | $47 \%$ |
| 15 | Applied the Step 0 test to some or all RUs | $19 \%$ | $41 \%$ |
| 16 | Considering Step 0 in the future | $41 \%$ | $43 \%$ |
| 21 | Planning to adopt a PCC GWI alternative | $60 \%$ | $\mathrm{n} / \mathrm{a}$ |

This chart can be read as follows: Question 14 indicates that $47 \%$ of large public company respondents believe that Step 0 meets the objective of reducing costs.

Selected responses: Companies responding to Question 15 that preferred the quantitative test and those applying Step 0 to some or all RUs

| Question |  | Prefer the <br> Quantitative <br> Test | Applied <br> Step 0 to <br> Some or All <br> $(\mathrm{N}=49)$ |
| :--- | :--- | ---: | ---: |
| 2 | Revenue greater than \$500 million | $53 \%$ | $54 \%$ |
| 3 | Public | $53 \%$ | $54 \%$ |
| 4 | More than one Reporting Unit | $76 \%$ | $86 \%$ |
| 6 | Perform analysis in-house | $63 \%$ | $57 \%$ |
| 9 | Excess fair value over carrying amount $>30 \%$ | $40 \%$ | $33 \%$ |
| 11 | Not aware of AICPA GWI Guide | $33 \%$ | $42 \%$ |
| 14 | Step 0 meets objective of reducing costs | $41 \%$ | $78 \%$ |

This chart can be read as follows: Question 14 indicates that 78\% of the companies that applied Step 0 to some or all of their reporting units believe that Step 0 meets the objective of reducing costs.

# Summary Statistics by Industry <br> (Table 1) 

Table 1 summarizes the annual amount of GWI and number of GWI events by industry, the proportion of companies within each industry that carry goodwill, and the percentage of those that recorded a GWI. This format allows for a ready comparison of data across industries over time. ${ }^{4}$

Industries are listed in descending order of their total GWI amounts for 2013. For example, Materials tops the list with its $\$ 4.5$ billion aggregate impairment.

Additionally, the graphs on the right in Table 1 provide for a quick comparison of (i) the preponderance of companies with goodwill within each industry; and (ii) the proportion of those companies that have recorded a GWI. For example:


59\% of Industrial
companies carried
goodwill in 2013.

$12 \%$ of those companies recorded an impairment.

## Goodwill Impairments

The first row of Table 1 data for each industry presents the annual dollar amounts of GWI (in billions), immediately followed by the number of impairment events (shown in parentheses). ${ }^{5}$

In general, 2013 was a year characterized by a notable improvement in the financial health of U.S. companies. With the exception of Telecommunication Services and Materials, all other industries exhibited a decline in the
amount of recorded GWI relative to 2012. In addition, the number of GWI events fell by $18 \%$, with some industries having a very small number of events. In effect, Telecommunication Services had a single impairment event in 2013, followed by Utilities with two. This trend resulted in an average impairment amount of $\$ 108$ million for 2013, which is now approaching the low of $\$ 86$ million in 2009.

Materials jumped from fifth place in 2012 to first in 2013 as the industry with the highest amount of GWI ( $\$ 4.5$ billion, or $22 \%$ of 2013's aggregate impairments in just eight events). It replaced Information Technology, which fell to sixth place in 2013, in the absence of two large 2012 impairments that had driven it to being in first place. In fact, these two events accounted for $90 \%$ of the total (or $\$ 19.9$ billion) of Information Technology's aggregate GWI in 2012. Excluding those two events, would have resulted in a GWI amount of $\$ 2.1$ billion, which is more in line with the $\$ 1.4$ billion recorded in 2013 for this industry.

The two largest impairment events of 2013 were both in Materials, driving up the total for the industry. The third largest 2013 GWI was recorded within Healthcare.

## Percent of Companies that Recorded a GWI

The second row in Table 1 indicates the portion of all companies within each industry that recorded a GWI. In 2013, Industrials had the largest percentage of companies that impaired goodwill (7.4\%) followed by Consumer Discretionary and Information Technology (both at 5.7\%). The average percentage across all industries declined to below 4\% between 2012 and 2013, well below the 6\% level seen in 2009.

## Percent of Companies with Goodwill

Obviously, companies that do not carry goodwill on their books are also not susceptible to a GWI; therefore, for perspective, the third row in Table 1 provides the proportion of companies with goodwill within each industry. Over the 2009-2013 period, Industrials had the highest percent of companies with goodwill in any given year ( $62 \%$ on average), while Financials had the lowest proportion (29\% on average). Overall, somewhat less than half of U.S. companies carry some amount of goodwill on their balance sheets; with the average remaining somewhat consistent at approximately $44 \%$ over the last three years.

## Percent with Goodwill Recording a GWI

The fourth row in Table 1 indicates the percentage of the companies with goodwill that recorded a GWI. This differs from the first row, where the percentages are based on all companies in each industry, rather than limited to those that carry goodwill on their balance sheets.

In 2013 Energy topped the list at $13.6 \%$, as the industry with the highest proportion of companies recognizing a GWI, continuing an upward trend started in 2009. Energy was also the only industry showing an increase from 2012 to 2013. All other industries showed a decline, with the most notable being Telecom Services (from 8.6\% to 3.1\%) and Consumer Staples (from 14.4\% to 9.4\%).

In aggregate, the average annual industry impairment percentages ranged from 7\% to $13 \%$ of companies with goodwill during the 5-year period.

[^3]| 2013 Goodwill Impairment <br> (Table 1) | 2009 | 2010 | 2011 | 2012 |  | 2013 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Goodwill Impairments: \$ billions (number of events) <br> Percent of Total Companies that Recorded GWI <br> Percent of Companies with Goodwill <br> Percent of Companies with Goodwill that Recorded a GWI |  |  |  |  | Companies with GW | Percent Recording GWI |
| Materials | 0.3 (11) | 0.2 (5) | 1.2 (10) | 3.6 (10) | 4.5 (8) | 44\% | 7\% |
|  | 4.2\% | 2.1\% | 4.3\% | 3.8\% | 2.9\% |  |  |
| (272) | 45.8\% | 49.8\% | 49.8\% | 43.5\% | 43.8\% |  |  |
|  | 9.1\% | 4.1\% | 8.7\% | 8.8\% | 6.7\% |  |  |
| Healthcare | 0.9 (21) | 3.9 (20) | 3.7 (27) | 6.0 (28) | 3.4 (21) | 41\% | 8\% |
|  | 3.2\% | 3.4\% | 4.3\% | 4.4\% | 3.3\% |  |  |
| (637) | 47.0\% | 50.0\% | 40.3\% | 39.6\% | 41.0\% |  |  |
|  | 6.8\% | 6.8\% | 10.7\% | 11.1\% | 8.0\% |  |  |
| Industrials | 5.3 (57) | 2.5 (28) | 2.8 (38) | 6.5 (50) | 3.0 (45) | 59\% | 12\% |
| (612) | $\begin{array}{r} 9.4 \% \\ 62.1 \% \end{array}$ | $\begin{array}{r} 4.6 \% \\ 64.5 \% \end{array}$ | $\begin{array}{r} 6.4 \% \\ 61.6 \% \end{array}$ | $\begin{array}{r} 8.2 \% \\ 60.2 \% \end{array}$ | $\begin{array}{r} 7.4 \% \\ 59.2 \% \end{array}$ |  |  |
|  | 15.2\% | 7.1\% | 10.4\% | 13.6\% | 12.4\% |  |  |
| Consumer Discretionary <br> (616) | 2.3 (42) | 1.7 (18) | 2.9 (47) | 4.5 (38) | 2.9 (35) | 53\% | 11\% |
|  | 6.4\% | 2.8\% | 7.5\% | 5.9\% | 5.7\% |  |  |
|  | 52.5\% | 54.3\% | 53.7\% | 51.9\% | 53.4\% |  |  |
|  | 12.2\% | 5.1\% | 13.9\% |  | 10.6\% |  |  |
| Energy | 0.3 (8) | 1.3 (9) | 1.4 (8) | 2.4 (11) | 2.2 (14) | 32\% | 14\% |
|  | 2.8\% | 3.1\% | 2.9\% | 3.5\% | 4.4\% |  |  |
| (321) | 40.7\% | 39.5\% | 34.3\% | 33.5\% | 32.1\% |  |  |
|  | 6.9\% | 7.8\% | 8.3\% | 10.5\% | 13.6\% |  |  |
| Information Technology <br> (794) | 3.1 (57) | 0.8 (32) | 3.3 (45) | 22.0 (53) | 1.4 (45) | 54\% | 11\% |
|  | $\begin{array}{r} 6.6 \% \\ 57.0 \% \end{array}$ | $\begin{array}{r} 3.8 \% \\ 61.9 \% \end{array}$ | $\begin{array}{r} 5.6 \% \\ 55.3 \% \end{array}$ | $\begin{array}{r} 6.5 \% \\ 54.2 \% \end{array}$ | $\begin{array}{r} 5.7 \% \\ 53.7 \% \end{array}$ |  |  |
|  | 11.6\% | 6.2\% | 10.2\% | 12.0\% | 10.6\% |  |  |
| Telecomm. Services | 0.0 (3) | 0.4 (2) | 2.8 (5) | 0.1 (3) | 1.1 (1) | 53\% | 3\% |
|  | 4.3\% | 3.7\% | 8.1\% | 4.8\% | 1.7\% |  |  |
| (60) | 56.5\% | 59.3\% | 53.2\% | 55.6\% | 53.3\% |  |  |
|  | 7.7\% | 6.3\% | 15.2\% | 8.6\% | 3.1\% |  |  |
| Consumer Staples | 2.3 (10) | 2.2 (9) | 5.0 (13) | 1.3 (14) | 1.0 (9) | 50\% | 9\% |
|  | 5.2\% | 4.8\% | 7.0\% | 7.0\% | 4.6\% |  |  |
| (194) | 55.2\% | 59.6\% | 51.9\% | 48.3\% | 49.5\% |  |  |
|  | 9.4\% | 8.0\% | 13.4\% | 14.4\% | 9.4\% |  |  |
| Financials | 10.7 (94) | 14.8 (42) | 5.8 (33) | 2.8 (24) | 1.0 (13) | 29\% | 3\% |
|  | 6.4\% | 2.9\% | 2.2\% | 1.6\% | 0.8\% |  |  |
| $(1,550)$ | 29.8\% | 29.3\% | 28.5\% | 28.9\% | 29.4\% |  |  |
|  | 21.4\% | 9.8\% | 7.7\% | 5.4\% | 2.9\% |  |  |
| Utilities | 1.3 (5) | 2.0 (6) | 0.0 (1) | 2.1 (4) | 0.4 (2) | 57\% | 4\% |
|  | 4.8\% | 5.9\% | 1.0\% | 4.0\% | 2.1\% |  |  |
| (97) | 54.8\% | 57.8\% | 56.7\% | 55.6\% | 56.7\% |  |  |
|  | 8.8\% | 10.2\% | 1.8\% | 7.3\% | 3.6\% |  |  |
| Total | 26.4 (308) | 29.7 (171) | 29.1 (227) | 51.4 (235) | 20.9 (193) | 43\% | 9\% |
|  | 6.0\% | 3.4\% | 4.5\% | 4.5\% | 3.7\% |  |  |
| $(5,153)$ | 46.4\% | 48.1\% | 44.4\% | 43.4\% | 43.4\% |  |  |
|  | 12.8\% | 7.0\% | 10.2\% | 10.5\% | 8.6\% |  |  |

## Summary Statistics by Industry (Table 2)

Table 1 captured the total amount of GWI and the frequency of events by industry. In Table 2 the focus shifts to the respective industries' (i) relative importance of goodwill to the overall asset base (goodwill intensity); (ii) magnitude of annual impairment relative to the carrying amount of goodwill; and (iii) magnitude of such impairment in relation to total assets (the last two being measures of loss intensity).

Goodwill intensity, defined here as goodwill as a percentage of total assets (GW/TA), measures the proportion of an industry's total assets represented by goodwill. Since goodwill arises as a result of a business combination, goodwill intensity is greater in industry sectors with significant M\&A activity.

The first loss intensity measure, goodwill impairment to goodwill (GWI/GW), indicates the magnitude of goodwill impairments. In other words, it measures the proportion of an industry's goodwill that is impaired each year.

These first two metrics are captured visually for 2013 on the graphs on the right of Table 2. For example:

> $23 \%$ of the Healthcare industry asset base was made up of goodwill.


## 0.9\% of Healthcare's

 prior year goodwill was impaired.Finally, goodwill impairments to total assets (GWI/TA), the second loss intensity measure, quantifies the percent of an industry's total asset base that was impaired.

|  |  | Intensity <br> Measure | How? | Why? |
| :--- | :--- | :--- | :--- | :--- |
| Goodwill <br> Intensity | Which industries had/have <br> the most goodwill <br> on their balance sheets? | GW/TA | Goodwill as a percentage <br> of total assets, measured <br> at year end | Indicates how significant <br> an industry's goodwill is in <br> relation to total assets. |
| Loss <br> Intensity | Which industries' <br> goodwill got hit hardest <br> by impairments? | GWI/GW | Goodwill impairments (total) <br> as a percentage of the prior <br> year's total goodwill | Indicates how impairments <br> impacted each industry's <br> goodwill. |
| Loss <br> Intensity | Which industries' balance <br> sheets got hit hardest by <br> impairments? | GWI/TA | Goodwill impairments (total) <br> as a percentage of the prior <br> Gear's total assets | Indicates how impairments <br> impacted each industry's <br> total assets. |

## Goodwill Intensity

The first row in Table 2 illustrates Goodwill to Total Assets (GW/TA) reported over time for each industry, with 2013 being specifically highlighted in the gray circle of the graphic displayed farthest on the right.

Aggregate goodwill as a percentage of total assets for U.S. companies (across all industries) was approximately $6 \%$ in each of the years. However, this ratio can vary significantly; for example, in 2013 it ranged from $1.8 \%$ for Financials to $23.1 \%$ for Healthcare.

Healthcare (which includes, but is not limited to, Biotechnology and Pharmaceutical companies) continued to exhibit the highest goodwill intensity during the 5 -year period. Contributing factors include ongoing transaction activity as well as high growth expectations from future (yet-to-be-identified) technologies, which may make goodwill a significant component of the purchase price.

Within each industry, goodwill intensity has been fairly stable over time. Industrials is the only industry to have exhibited an upward trend during the entire period, with goodwill intensity increasing from $12.0 \%$ in 2009 to $16.2 \%$ in 2013 . The most notable uptick in 2013 was seen in Consumer Discretionary, followed by Industrials.

## Goodwill Impairment to Goodwill

The second row of Table 2 presents the first measure of loss intensity (GWI/GW) recognized for each industry over the 5 -year period, with 2013 metrics prominently displayed in the triangle portion of the graphic located on the far right.

The total amount of impairment decreased from $\$ 51$ billion in 2012 to $\$ 21$ billion in 2013, a plunge of approximately $\$ 30$ billion (as previously shown in Table 1). Nearly two-thirds of the net total decrease (or $\$ 21$ billion) was concentrated in Information Technology, which led to a drop in its loss intensity factor from $6.7 \%$ in 2012 to $0.4 \%$ in 2013. With the exception of Telecommunications Services and Materials, all other industries displayed a decline in loss intensity from 2012 to 2013.

## Goodwill Impairments to Total Assets

This second measure of loss intensity is presented in the third row of Table 2 for each industry.

Goodwill impairment charges represent a relatively small proportion of a company's total asset base. The $1.3 \%$ GWI/TA ratio for Information Technology in 2012 was the only year when any industry exceeded $1.0 \%$. Except for Materials' $0.5 \%$ in 2012 and $0.6 \%$ in 2013, no other industry exceeded a $0.5 \% \mathrm{GWI} / \mathrm{TA}$ ratio in any year during the 2009-2013 period.


## Industry Spotlights

In contrast to Tables 1 and 2, the Industry Spotlights allow the reader a more in-depth look at the 2013 statistics for the respective industries.

Industry Spotlights cover 10 industry sectors. They provide a focus on relevant metrics and statistics for the respective industries. Each spotlight displays a variety of data as well as the top three companies that recognized the highest amount of goodwill impairment for the year.

## Highlights

Materials jumped from fifth place in 2012 to first in 2013 , recognizing $\$ 4.5$ billion of GWI ( $22 \%$ of 2013 's aggregate impairments) in just eight events. It replaced Information Technology, which had $\$ 22.0$ billion of GWI in 53 events in 2012. The two largest impairment events of the year were both in Materials, driving up the total for the industry. The third largest 2013 GWI was recorded within Healthcare.

## Market-to-Book Value

While not a sole or definitive indicator of impairment, a company's market capitalization should not be ignored during a goodwill impairment test. Understanding the dynamics of the market-to-book ratios is informative, but the fact that an individual company has a ratio below 1.0 does not by default result in failing either Step 1 or 2 of the goodwill impairment test. Reporting unit structures, their respective performance, and where the goodwill resides are a few of the critical factors that must be considered in the impairment testing process.

A low market-to-book ratio will, however, likely create challenges in supporting the "Step 0" more-likely-than-not conclusion (that the fair value of a reporting unit is not less than its carrying amount) required from a qualitative assessment.

## Guide

The guide below provides a brief description of the components of the Industry Spotlights.

## Goodwill Trends

Provides goodwill amounts at the beginning and end of a 5-year period, as well as the aggregate goodwill additions and impairments over that period.


Market-to-Book Ratio Distribution Highlights the number of companies in the industry (shown in percentages terms) with a market-to-book ratio below and above 1.0. The blue shaded area to the left of the needle further separates the number of companies with a ratio above and below 0.5. Although not predictive on its own, companies with a low market-to-book ratio would be at a greater risk of impairment.

## Size of Industry

Represents the size of the industry relative to the combined size of all the companies included in the Study sample, measured in terms of market cap.

Top 3 Industry Goodwill Impairments Highlights the concentration of the top 3 impairments recorded in the industry during the year of the Study.

Impairment History
Annual amounts and number of goodwill impairment events over the last five years. The industry market-to-book ratio (red line) provides some context for the annual impairment measures, although it is not predictive on its own.
321
Summary Statistics
2013 Goodwill Intensity (GWITA), Goodwill
Impairment to Goodwill (GWI/GW),
Companies with Goodwill, and Percent of
Companies with Goodwill that recorded a
Goodwill Impairment are depicted here and
also in Table 2 elsewhere in the Study.

[^4]Five year index of the industry sector and the S\&P 500 Index. Summarizes the relative performance of the industry: reflects what a $\$ 1$ investment in the beginning of 2009 would be worth at the end of 2013

2013 Industry Spotlight
GICS Code 10


Market-to-Book Ratio Distribution

(Percentages of Companies Below / Above 1.0)


Companies
32.1\%

Companies with Goodwill


Goodwill to Total Assets (GW/TA)
13.6\%

Percent of Companies with Goodwill that Recorded a Goodwill
Impairment in 2013
2.2\%

Percent of Goodwill Impaired (GWI/GW ratio)
1.9

Market-to-Book Ratio (median)


## Top 3 Industry Goodwill Impairments

Energy Transfer Equity, L.P. .......... $\$ 689$ million
NuStar Energy L.P. ......................... $\$ 332$ million
Arch Coal Inc.................................. $\$ 265$ million


## 2013 Industry Spotlight

## Materials

GICS Code 15


Market-to-Book Ratio Distribution
(Based on Number of Companies)

(Percentages of Companies Below / Above 1.0)

Companies
43.8\%

Companies with Goodwill


Goodwill to Total Assets (GW/TA)
6.7\%

Percent of Companies with Goodwill that Recorded a Goodwill Impairment in 2013


Percent of Goodwill Impaired (GWI/GW ratio)


Market-to-Book Ratio (median)


## Top 3 Industry Goodwill Impairments

United States Steel Corp. . 1,806 million
Alcoa Inc. \$1,731 million
International Paper Company....... $\$ 512$ million


## 2013 Industry Spotlight

## Industrials

GICS Code 20


Market-to-Book Ratio Distribution



Companies
59.2\%

Companies with Goodwill


Goodwill to Total Assets (GW/TA)
12.4\%

Percent of Companies with Goodwill that Recorded a Goodwill Impairment in 2013
0.8\%

Percent of Goodwill Impaired (GWI/GW ratio)
2.3

Market-to-Book Ratio (median)


## Top 3 Industry Goodwill Impairments

Emerson Electric Co $\qquad$ \$528 million
Waste Management, Inc. $\qquad$ . $\$ 509$ million Lockheed Martin Corporation.. \$195 million


## 2013 Industry Spotlight

Consumer Discretionary
GICS Code 25


Market-to-Book Ratio Distribution



Goodwill to Total Assets (GW/TA)
10.6\%

Percent of Companies with Goodwill that Recorded a Goodwill
Impairment in 2013
1.0\%

Percent of Goodwill Impaired (GWI/GW ratio)
2.5

Market-to-Book Ratio (median)


## Top 3 Industry Goodwill Impairments

Best Buy Co., Inc. $\qquad$ \$822 million
Penn National Gaming Inc. . $\$ 807$ million
Johnson Controls Inc. $\qquad$ $\$ 430$ million


## 2013 Industry Spotlight

## Consumer Staples

GICS Code 30


Market-to-Book Ratio Distribution


49.5\%

Companies with Goodwill
20.1\%

Goodwill to Total Assets (GW/TA)
9.4\%

Percent of Companies with Goodwill that Recorded a Goodwill
Impairment in 2013


Percent of Goodwill Impaired (GWI/GW ratio)
3.1

Market-to-Book Ratio (median)


## Top 3 Industry Goodwill Impairments

Campbell Soup Company $\qquad$ \$360 million
Constellation Brands Inc. $\qquad$ $\$ 279$ million
The Procter \& Gamble Company ........ $\$ 259$ million


## 2013 Industry Spotlight

GICS Code 35


Market-to-Book Ratio Distribution

(Percentages of Companies Below / Above 1.0)


Companies
41.0\%

Companies with Goodwill
23.1\%

Goodwill to Total Assets (GW/TA)
8.0\%

Percent of Companies with Goodwill that Recorded a Goodwill
Impairment in 2013


Percent of Goodwill Impaired (GWI/GW ratio)


Market-to-Book Ratio (median)


## Top 3 Industry Goodwill Impairments

Hologic Inc. $\qquad$ \$1,117 million
Cardinal Health, Inc. $\qquad$ . $\$ 829$ million
Gentiva Health Services Inc......... $\$ 601$ million

Index (Year End 2008 = \$1)


## 2013 Industry Spotlight

GICS Code 40


Market-to-Book Ratio Distribution
(Based on Number of Companies)

(Percentages of Companies Below / Above 1.0)


## Top 3 Industry Goodwill Impairments

Loews Corporation. $\qquad$ . $\$ 636$ million
E*TRADE Financial Corporation........... $\$ 142$ million
Meadowbrook Insurance Group Inc. .. $\$ 115$ million
此
29.4\%

Companies with Goodwill


Goodwill to Total Assets (GW/TA)
2.9\%

Percent of Companies with Goodwill that Recorded a Goodwill Impairment in 2013
0.2\%

Percent of Goodwill Impaired (GWI/GW ratio)


Market-to-Book Ratio (median)


## 2013 Industry Spotlight

## Information Technology

GICS Code 45


Market-to-Book Ratio Distribution


794
Companies
53.7\%

Companies with
Goodwill


Goodwill to Total Assets (GW/TA)
10.6\%

Percent of Companies with Goodwill that Recorded a Goodwill Impairment in 2013
0.4\%

Percent of Goodwill Impaired (GWI/GW ratio)
2.5

Market-to-Book Ratio (median)


## Top 3 Industry Goodwill Impairments

EarthLink Holdings Corp.
$\$ 257$ million
Applied Materials, Inc.
$\$ 224$ million
Itron, Inc.
\$173 million


## 2013 Industry Spotlight

## Telecommunication Services

GICS Code 50


53.3\%

Companies with
Goodwill
18.7\%

Goodwill to Total Assets (GW/TA)
3.1\%

Percent of Companies with Goodwill that Recorded a Goodwill
Impairment in 2013


Percent of Goodwill Impaired (GWI/GW ratio)
2.8

Market-to-Book Ratio (median)


## Top 3 Industry Goodwill Impairments

CenturyLink, Inc. $\qquad$ \$1,092 million


## 2013 Industry Spotlight

## Utilities

GICS Code 55

Goodwill Trends 2008-2013



Market-to-Book Ratio Distribution
(Based on Number of Companies)

(Percentages of Companies Below / Above 1.0)


Companies
56.7\%

Companies with Goodwill

## 4.8\%

Goodwill to Total Assets (GW/TA)
3.6\%

Percent of Companies with Goodwill that Recorded a Goodwill Impairment in 2013
0.6\%

Percent of Goodwill Impaired (GWI/GW ratio)
1.6

Market-to-Book Ratio (median)


## Top 3 Industry Goodwill Impairments

The AES Corporation. \$372 million
Gas Natural Inc \$1 million


## 2013 Composite Industry Spotlight



Market-to-Book Ratio Distribution
(Based on Number of Companies)

(Percentages of Companies Below / Above 1.0)

43.4\%

Companies with
Goodwill

## 6.2\%

Goodwill to Total Assets (GW/TA)

## 8.6\%

Percent of Companies with Goodwill that Recorded a Goodwill Impairment in 2013
0.8\%

Percent of Goodwill Impaired (GWI/GW ratio)
1.8

Market-to-Book Ratio (median)

Size of Sectors
(Relative to Study's Total Market Cap)


## Top 3 Industry Goodwill Impairments

United States Steel Corp. $\qquad$ \$1,806 million
Alcoa Inc. $\qquad$ \$1,731 million
Hologic Inc. $\qquad$ \$1,117 million

Cumulative 5-year Terminal Index Value by Industry from 2009 to 2013 Index (Year End 2008 = \$1)


# Goodwill Impairments by Sub-Industry 

## Calendar Year 2013

Goodwill Intensity:

- Goodwill to Total Assets (GW/TA)

Loss Intensity:

- Goodwill Impairment to Goodwill (GWI/GW)

List of Industries by Sub-Industry, as defined by Global Industry Classification Standard (GICS)

| GICS <br> Code | GICS <br> Sub-Industry Name | Number Co.'s | \% of Co.'s with GW | GW/TA | GWI/GW | \% of Co's with GW that Recorded GWI | Goodwill Impairment (in \$millions) | Market-to-Book Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Energy |  |  |  |  | \$2,157(industry total) |  |  |
| 10101010 | Oil and Gas Drilling | 8 | 25\% | 0.7\% | 19.3\% | 50.0\% | \$42 | 1.4 |
| 10101020 | Oil and Gas Equipment and Services | 50 | 66\% | 15.7\% | 0.6\% | 6.1\% | \$155 | 1.8 |
| 10102010 | Integrated Oil and Gas | 4 | 50\% | 0.9\% | - | - | - | 1.7 |
| 10102020 | Oil and Gas Exploration and Production | 163 | 10\% | 2.7\% | 1.3\% | 11.8\% | \$231 | 2.1 |
| 10102030 | Oil and Gas Refining and Marketing | 27 | 52\% | 5.3\% | 5.9\% | 7.1\% | \$332 | 1.7 |
| 10102040 | Oil and Gas Storage and Transportation | 49 | 69\% | 8.8\% | 2.1\% | 17.6\% | \$880 | 2.1 |
| 10102050 | Coal and Consumable Fuels | 20 | 5\% | 0.6\% | 61.7\% | 66.7\% | \$519 | 1.7 |
|  | Materials |  |  |  |  | \$4,471 (industry total) |  |  |
| 15101010 | Commodity Chemicals | 25 | 36\% | 13.9\% | - | - | - | 2.4 |
| 15101020 | Diversified Chemicals | 9 | 78\% | 14.1\% | - | - | - | 2.2 |
| 15101030 | Fertilizers and Agricultural Chemicals | 17 | 35\% | 14.5\% | 0.3\% | 16.7\% | \$30 | 2.4 |
| 15101040 | Industrial Gases | 3 | 100\% | 13.9\% | - | - | - | - |
| 15101050 | Specialty Chemicals | 56 | 63\% | 20.1\% | 0.0\% | 2.9\% | \$1 | 2.8 |
| 15102010 | Construction Materials | 12 | 58\% | 25.3\% | - | - | - | 2.2 |
| 15103010 | Metal and Glass Containers | 10 | 80\% | 24.3\% | - | - | - | 3.7 |
| 15103020 | Paper Packaging | 10 | 90\% | 19.6\% | - | - | - | 2.5 |
| 15104010 | Aluminum | 5 | 40\% | 8.8\% | 50.1\% | 50.0\% | \$1,731 | 0.9 |
| 15104020 | Diversified Metals and Mining | 40 | 18\% | 2.8\% | 0.6\% | 14.3\% | \$14 | 2.1 |
| 15104030 | Gold | 22 | 5\% | 0.4\% | 42.4\% | 100.0\% | \$56 | 3.9 |
| 15104040 | Precious Metals and Minerals | 12 | 8\% | 0.4\% | - | - | - | 2.0 |
| 15104045 | Silver | 2 | - | - | - | - | - | 0.7 |
| 15104050 | Steel | 33 | 48\% | 7.1\% | 34.0\% | 12.5\% | \$2,127 | 1.3 |
| 15105010 | Forest Products | 4 | 25\% | 0.3\% | - | - | - | 2.1 |
| 15105020 | Paper Products | 12 | 58\% | 10.9\% | 9.5\% | 14.3\% | \$512 | 2.2 |
|  | Industrials |  |  |  |  | \$3,026 (industry total) |  |  |
| 20101010 | Aerospace and Defense | 68 | 62\% | 27.6\% | 0.3\% | 16.7\% | \$364 | 2.1 |
| 20102010 | Building Products | 26 | 62\% | 15.0\% | 0.4\% | 6.3\% | \$21 | 3.5 |
| 20103010 | Construction and Engineering | 31 | 77\% | 23.4\% | 0.1\% | 8.3\% | \$15 | 1.8 |
| 20104010 | Electrical Components and Equipment | 60 | 43\% | 26.3\% | 3.9\% | 23.1\% | \$616 | 2.4 |
| 20104020 | Heavy Electrical Equipment | 14 | 14\% | 20.0\% | - | - | - | 2.8 |
| 20105010 | Industrial Conglomerates | 9 | 78\% | 10.9\% | 0.1\% | 14.3\% | \$100 | 2.5 |
| 20106010 | Construction Machinery and Heavy Trucks | 27 | 81\% | 8.9\% | 1.0\% | 9.1\% | \$158 | 2.2 |
| 20106015 | Agricultural and Farm Machinery | 6 | 100\% | 3.1\% | - | - | - | 2.1 |
| 20106020 | Industrial Machinery | 92 | 64\% | 26.1\% | 1.1\% | 10.2\% | \$426 | 2.5 |
| 20107010 | Trading Companies and Distributors | 36 | 61\% | 15.0\% | 0.5\% | 18.2\% | \$40 | 2.3 |

## Goodwill Impairments by Sub-Industry

## Calendar Year 2013

List of Industries by Sub-Industry, as defined by Global Industry Classification Standard (GICS)

| $\begin{aligned} & \text { GICS } \\ & \text { Code } \end{aligned}$ | GICS <br> Sub-Industry Name | Number Co.'s | \% of Co.'s with GW | GW/TA | GWI/GW | \% of Co's with GW that Recorded GWI | Goodwill Impairment (in \$millions) | Market-to-Book Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Industrials (continued) |  |  |  |  |  |  |  |  |
| 20201010 | Commercial Printing | 11 | 91\% | 27.6\% | 5.8\% | 20.0\% | \$228 | 1.7 |
| 20201050 | Environmental and Facilities Services | 55 | 36\% | 35.2\% | 2.6\% | 20.0\% | \$626 | 2.4 |
| 20201060 | Office Services and Supplies | 21 | 62\% | 19.9\% | 4.4\% | 15.4\% | \$174 | 3.1 |
| 20201070 | Diversified Support Services | 24 | 63\% | 30.7\% | 0.1\% | 6.7\% | \$4 | 2.0 |
| 20201080 | Security and Alarm Services | 6 | 17\% | 9.5\% | - | - | - | 1.6 |
| 20202010 | Human Resource and Employment Services | 23 | 78\% | 22.3\% | 0.4\% | 11.1\% | \$18 | 2.5 |
| 20202020 | Research and Consulting Services | 33 | 64\% | 44.5\% | 1.1\% | 14.3\% | \$111 | 1.6 |
| 20301010 | Air Freight and Logistics | 16 | 63\% | 7.9\% | 0.8\% | 10.0\% | \$53 | 2.6 |
| 20302010 | Airlines | 12 | 33\% | 11.6\% | - | - | - | 1.5 |
| $\underline{20303010}$ | Marine | 6 | 83\% | 12.8\% | - | - | - | 2.1 |
| 20304010 | Railroads | 6 | 50\% | 0.6\% | - | - | - | 2.7 |
| 20304020 | Trucking | 24 | 58\% | 4.2\% | 2.3\% | 7.1\% | \$73 | 2.4 |
| 20305010 | Airport Services | 4 | 50\% | 20.6\% | - | - | - | 1.8 |
| 20305020 | Highways and Railtracks | 1 | - | - | - | - | - | - |
| 20305030 | Marine Ports and Services | 1 | - | - | - | - | - | 3.7 |
|  | Consumer Discretionary |  |  |  |  | \$2,940 (industry total) |  |  |
| 25101010 | Auto Parts and Equipment | 39 | 51\% | 12.6\% | 3.4\% | 20.0\% | \$510 | 2.1 |
| 25101020 | Tires and Rubber | 3 | 67\% | 3.4\% | - | - | - | 2.4 |
| 25102010 | Automobile Manufacturers | 7 | 43\% | 0.1\% | - | - | - | 3.3 |
| 25102020 | Motorcycle Manufacturers | 2 | 100\% | 0.3\% | - | - | - | 5.0 |
| 25201010 | Consumer Electronics | 12 | 25\% | 6.6\% | - | - | - | 1.3 |
| 25201020 | Home Furnishings | 13 | 38\% | 20.5\% | 1.8\% | 20.0\% | \$63 | 2.4 |
| 25201030 | Homebuilding | 19 | 26\% | 0.3\% | - | - | - | 1.7 |
| 25201040 | Household Appliances | 6 | 50\% | 10.6\% | 0.2\% | 66.7\% | \$4 | 2.0 |
| 25201050 | Housewares and Specialties | 11 | 82\% | 26.9\% | - | - | - | 2.7 |
| 25202010 | Leisure Products | 20 | 55\% | 11.8\% | - | - | - | 3.6 |
| 25203010 | Apparel, Accessories and Luxury Goods | 40 | 60\% | 15.7\% | 0.6\% | 8.3\% | \$52 | 2.5 |
| 25203020 | Footwear | 11 | 64\% | 3.3\% | - | - | - | 2.8 |
| 25203030 | Textiles | 5 | 60\% | 1.5\% | - | - | - | 2.0 |
| 25301010 | Casinos and Gaming | 37 | 41\% | 10.3\% | 9.3\% | 20.0\% | \$862 | 1.9 |
| 25301020 | Hotels, Resorts and Cruise Lines | 15 | 60\% | 16.1\% | - | - | - | 3.0 |
| 25301030 | Leisure Facilities | 15 | 53\% | 7.8\% | 10.1\% | 12.5\% | \$89 | 1.9 |
| 25301040 | Restaurants | 51 | 65\% | 9.2\% | 2.9\% | 9.1\% | \$240 | 4.9 |
| $\underline{25302010}$ | Education Services | 24 | 50\% | 16.2\% | 0.1\% | 8.3\% | \$3 | 1.6 |
| 25302020 | Specialized Consumer Services | 14 | 86\% | 15.9\% | 0.7\% | 16.7\% | \$36 | 2.7 |
| 25401010 | Advertising | 21 | 38\% | 32.6\% | 0.1\% | 12.5\% | \$11 | 2.9 |
| 25401020 | Broadcasting | 22 | 86\% | 31.1\% | 0.1\% | 15.8\% | \$36 | 3.0 |
| 25401025 | Cable and Satellite | 10 | 70\% | 13.8\% | - | - | - | - |
| 25401030 | Movies and Entertainment | 28 | 50\% | 36.5\% | - | - | - | 2.8 |
| 25401040 | Publishing | 19 | 58\% | 30.2\% | 0.2\% | 9.1\% | \$13 | 2.6 |
| 25501010 | Distributors | 18 | 44\% | 19.8\% | - | - | - | 1.2 |
| 25502010 | Catalog Retail | 7 | 43\% | 35.4\% | 0.1\% | 33.3\% | \$5 | 3.7 |
| 25502020 | Internet Retail | 16 | 44\% | 13.2\% | - | - | - | - |
| 25503010 | Department Stores | 7 | 43\% | 5.4\% | - | - | - | 2.4 |

## Goodwill Impairments by Sub-Industry

## Calendar Year 2013

List of Industries by Sub-Industry, as defined by Global Industry Classification Standard (GICS)

| $\begin{aligned} & \text { GICS } \\ & \text { Code } \end{aligned}$ | GICS <br> Sub-Industry Name | Number Co.'s | \% of Co.'s <br> with GW | GW/TA | GWI/GW | \% of Co's with GW that Recorded GWI | Goodwill Impairment (in \$millions) | Market-to-Book Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Consumer Discretionary (continued) |  |  |  |  |  |  |  |  |
| 25503020 | General Merchandise Stores | 8 | 25\% | 0.6\% | - | - | - | 2.5 |
| 25504010 | Apparel Retail | 42 | 43\% | 5.3\% | 2.4\% | 11.1\% | \$77 | 2.5 |
| 25504020 | Computer and Electronics Retail | 10 | 50\% | 12.5\% | 26.6\% | 80.0\% | \$857 | 1.3 |
| 25504030 | Home Improvement Retail | 3 | 67\% | 1.8\% | - | - | - | - |
| 25504040 | Specialty Stores | 33 | 52\% | 10.9\% | 1.1\% | 11.8\% | \$62 | 1.8 |
| 25504050 | Automotive Retail | 20 | 75\% | 9.2\% | 0.4\% | 13.3\% | \$19 | 2.8 |
| 25504060 | Home Furnishing Retail | 8 | 50\% | 6.0\% | - | - | - | 4.2 |
|  | Consumer Staples |  |  |  |  | \$1,037 (industry total) |  |  |
| 30101010 | Drug Retail | 7 | 29\% | 25.2\% | - | - | - | 2.5 |
| 30101020 | Food Distributors | 6 | 83\% | 12.9\% | - | - | - | 3.2 |
| 30101030 | Food Retail | 13 | 69\% | 7.6\% | - | - | - | 1.8 |
| 30101040 | Hypermarkets and Super Centers | 3 | 67\% | 8.2\% | - | - | - | 4.6 |
| 30201010 | Brewers | 4 | 75\% | 15.0\% | - | - | - | 3.3 |
| 30201020 | Distillers and Vintners | 6 | 67\% | 34.4\% | 3.0\% | 50.0\% | \$280 | 2.5 |
| 30201030 | Soft Drinks | 15 | 47\% | 17.1\% | 0.3\% | 14.3\% | \$82 | - |
| 30202010 | Agricultural Products | 11 | 27\% | 3.3\% | - | - | - | 1.4 |
| 30202030 | Packaged Foods and Meats | 59 | 58\% | 30.1\% | 0.6\% | 5.9\% | \$360 | 3.0 |
| 30203010 | Tobacco | 7 | 86\% | 22.8\% | - | - | - | 3.1 |
| 30301010 | Household Products | 13 | 77\% | 30.5\% | 0.4\% | 20.0\% | \$267 | 3.1 |
| 30302010 | Personal Products | 50 | 22\% | 8.4\% | 2.6\% | 18.2\% | \$48 | 4.0 |
|  | Healthcare |  |  |  |  | \$3,397(industry total) |  |  |
| 35101010 | Healthcare Equipment | 128 | 47\% | 23.5\% | 3.3\% | 11.7\% | \$1,750 | 3.0 |
| 35101020 | Healthcare Supplies | 42 | 64\% | 33.3\% | 0.5\% | 3.7\% | \$41 | 3.2 |
| 35102010 | Healthcare Distributors | 10 | 80\% | 18.1\% | 4.9\% | 12.5\% | \$829 | 3.2 |
| 35102015 | Healthcare Services | 52 | 54\% | 53.4\% | 1.1\% | 14.3\% | \$646 | 2.5 |
| 35102020 | Healthcare Facilities | 28 | 61\% | 24.7\% | 0.5\% | 17.6\% | \$96 | 2.3 |
| 35102030 | Managed Healthcare | 13 | 85\% | 24.8\% | - | - | - | 1.8 |
| 35103010 | Health Care Technology | 31 | 45\% | 30.2\% | 0.6\% | 7.1\% | \$22 | - |
| 35201010 | Biotechnology | 208 | 24\% | 13.8\% | 0.0\% | 4.0\% | \$6 | - |
| 35202010 | Pharmaceuticals | 81 | 28\% | 17.7\% | 0.0\% | 4.3\% | \$7 | 4.9 |
| 35203010 | Life Sciences Tools and Services | 44 | 52\% | 30.0\% | 0.0\% | 4.3\% | \$0 | 3.8 |
|  | Financials |  |  |  |  | \$1,005 (industry total) |  |  |
| 40101010 | Diversified Banks | 10 | 80\% | 2.1\% | - | - | - | 1.0 |
| 40101015 | Regional Banks | 426 | 54\% | 2.4\% | 0.0\% | 1.3\% | \$22 | 1.1 |
| 40102010 | Thrifts and Mortgage Finance | 156 | 38\% | 0.1\% | 0.0\% | 1.7\% | \$0 | 1.0 |
| 40201020 | Other Diversified Financial Services | 2 | - | - | - | - | - | - |
| 40201030 | Multi-Sector Holdings | 7 | 43\% | 11.0\% | 0.0\% | 33.3\% | \$11 | 1.5 |
| 40201040 | Specialized Finance | 22 | 41\% | 13.1\% | - | - | - | 1.3 |
| 40202010 | Consumer Finance | 22 | 59\% | 3.5\% | 0.1\% | 15.4\% | \$28 | 2.1 |
| 40203010 | Asset Management and Custody Banks | 585 | 4\% | 3.4\% | - | - | - | 0.9 |
| 40203020 | Investment Banking and Brokerage | 29 | 62\% | 0.9\% | 0.9\% | 16.7\% | \$168 | 1.4 |
| 40203030 | Diversified Capital Markets | 3 | 67\% | 0.8\% | - | - | - | 0.7 |
| 40301010 | Insurance Brokers | 7 | 71\% | 39.3\% | - | - | - | 3.0 |

## Goodwill Impairments by Sub-Industry

## Calendar Year 2013

List of Industries by Sub-Industry, as defined by Global Industry Classification Standard (GICS)

| GICS <br> Code | GICS <br> Sub-Industry Name | Number Co.'s | \% of Co.'s with GW | GW/TA | GWI/GW | \% of Co's with GW that <br> Recorded GWI | Goodwill Impairment (in \$millions) | Market-to-Book Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Financials (continued) |  |  |  |  |  |  |  |  |
| 40301020 | Life and Health Insurance | 21 | 57\% | 0.6\% | - | - | - | 1.1 |
| 40301030 | Multi-line Insurance | 13 | 69\% | 0.4\% | 14.9\% | 11.1\% | \$636 | 0.9 |
| 40301040 | Property and Casualty Insurance | 44 | 55\% | 1.8\% | 1.2\% | 4.2\% | \$115 | 1.3 |
| 40301050 | Reinsurance | 2 | 100\% | 0.2\% | - | - | - | 0.9 |
| 40402010 | Diversified REITs | 18 | 17\% | 0.5\% | - | - | - | 1.3 |
| 40402020 | Industrial REITs | 5 | - | - | - | - | - | 1.3 |
| 40402030 | Mortgage REITs | 25 | 12\% | 0.1\% | 10.5\% | 33.3\% | \$24 | 0.8 |
| 40402035 | Hotel and Resort REITs | 13 | 15\% | 0.1\% | - | - | - | 1.5 |
| 40402040 | Office REITs | 16 | 13\% | 0.0\% | - | - | - | 1.2 |
| 40402045 | Healthcare REITs | 11 | 36\% | 0.2\% | - | - | - | 1.9 |
| 40402050 | Residential REITs | 18 | 22\% | 0.1\% | - | - | - | 1.8 |
| 40402060 | Retail REITs | 29 | 14\% | 0.0\% | - | - | - | 1.6 |
| 40402070 | Specialized REITs | 14 | 50\% | 10.1\% | - | - | - | 2.7 |
| 40403010 | Diversified Real Estate Activities | 8 | - | - | - | - | - | 2.3 |
| 40403020 | Real Estate Operating Companies | 25 | - | - | - | - | - | 1.8 |
| 40403030 | Real Estate Development | 10 | 20\% | 2.3\% | - | - | - | 1.0 |
| 40403040 | Real Estate Services | 9 | 44\% | 31.3\% | - | - | - | - |
|  | Information Technology |  |  |  |  | \$1,380 (industry total) |  |  |
| 45101010 | Internet Software and Services | 116 | 54\% | 24.4\% | 1.8\% | 20.6\% | \$444 | 3.2 |
| 45102010 | IT Consulting and Other Services | 51 | 43\% | 25.0\% | 0.3\% | 9.1\% | \$120 | 3.1 |
| 45102020 | Data Processing and Outsourced Services | 41 | 93\% | 25.6\% | 0.2\% | 7.9\% | \$113 | 3.8 |
| 45103010 | Application Software | 112 | 56\% | 36.2\% | 0.4\% | 6.3\% | \$119 | 3.7 |
| 45103020 | Systems Software | 35 | 57\% | 21.2\% | 0.0\% | 5.0\% | \$3 | 3.7 |
| 45103030 | Home Entertainment Software | 9 | 56\% | 41.8\% | 0.0\% | 20.0\% | \$1 | 2.8 |
| 45201020 | Communications Equipment | 86 | 49\% | 19.9\% | 0.1\% | 9.5\% | \$28 | 1.8 |
| 45202030 | Technology Hardware, Storage and Peripherals | 50 | 42\% | 12.6\% | 0.1\% | 9.5\% | \$70 | 2.3 |
| 45203010 | Electronic Equipment and Instruments | 87 | 39\% | 15.3\% | 8.3\% | 14.7\% | \$206 | 2.1 |
| 45203015 | Electronic Components | 22 | 64\% | 10.5\% | - | - | - | 1.7 |
| 45203020 | Electronic Manufacturing Services | 38 | 50\% | 11.1\% | 0.9\% | 21.1\% | \$26 | 1.6 |
| 45203030 | Technology Distributors | 23 | 65\% | 9.1\% | 0.0\% | 13.3\% | \$2 | 1.3 |
| 45301010 | Semiconductor Equipment | 43 | 51\% | 12.6\% | 3.5\% | 4.5\% | \$224 | 1.7 |
| 45301020 | Semiconductors | 81 | 59\% | 11.5\% | 0.1\% | 6.3\% | \$24 | 2.5 |



## About Duff \& Phelps

Duff \& Phelps is the premier global valuation and corporate finance advisor with expertise in complex valuation, dispute consulting, M\&A and restructuring. The firm's more than 1,000 employees serve a diverse range of clients from offices in North America, Europe and Asia. For more information, visit www.duffandphelps.com.

M\&A advisory and capital raising services in the United States are provided by Duff \& Phelps Securities, LLC. Member FINRA/ SIPC. Pagemill Partners is a Division of Duff \& Phelps Securities, LLC. M\&A advisory and capital raising services in the United Kingdom and Germany are provided by Duff \& Phelps Securities Ltd., which is authorized and regulated by the Financial Conduct Authority.

This material is offered for educational purposes with the understanding that Duff \& Phelps, LLC is not rendering legal, accounting or any other professional service through presentation of this material.

The information presented in this report has been obtained with the greatest of care from sources believed to be reliable, but is not guaranteed to be complete, accurate or timely. Duff \& Phelps, LLC expressly disclaims any liability, of any type, including direct, indirect, incidental, special or consequential damages, arising from or relating to the use of this material or any errors or omissions that may be contained herein.

Copyright ©2014 Duff \& Phelps Corporation. All rights reserved.

## Duff \& Phelps Authors

## Gary Roland

Managing Director

+ 12154306042
gary.roland@duffandphelps.com


## Carla Nunes

Director
+1 2154306149
carla.nunes@duffandphelps.com

## Marianna Todorova

Director
+1 2128716239
marianna.todorova@duffandphelps.com

## Niel Patel

Senior Associate

+ 13126974567
niel.patel@duffandphelps.com
Jamie Warner
Senior Associate
+ 12154306132
jamie.warner@duffandphelps.com
Contributors to this report include:


## Kristen O'Neil

Intern

## About Financial Executives Research Foundation Inc.

Financial Executives Research Foundation (FERF) is the non-profit 501(c)(3) research affiliate of FEI. FERF researchers identify key financial issues and develop impartial, timely research reports for FEl members and non-members alike, in a variety of publication formats. FERF relies primarily on voluntary tax-deductible contributions from corporations and individuals. This and more than 140 other Research Foundation publications can be ordered by logging onto www.ferf.org Questions about FERF can be directed to bsinnett@financialexecutives.org

The views set forth in this publication are those of the authors and do not necessarily represent those of the Financial Executives Research Foundation Board as a whole, individual trustees, employees, or the members of the Advisory Committee. FERF shall be held harmless against any claims, demands, suits, damages, injuries, costs, or expenses of any kind or nature whatsoever, except such liabilities as may result solely from misconduct or improper performance by the Foundation or any of its representatives.

Copyright © 2014 by Financial Executives
Research Foundation, Inc.

All rights reserved. No part of this publication may be reproduced in any form or by any means without written permission from the publisher.

International Standard Book Number: 978-1-61509-170-6

Printed in the United States of America
First Printing
Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by Financial Executives Research Foundation, Inc., provided that an appropriate fee is paid to Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923. Fee inquiries can be directed to Copyright Clearance Center at 978-750-8400. For further information, please check Copyright Clearance Center online at: http://www.copyright.com.

## About Financial Executives Research Foundation Inc.

FINANCIAL EXECUTIVES
RESEARCH FOUNDATION gratefully acknowledges the following companies for generously supporting FERF's 2014 Annual Corporate Campaign

PLATINUM MAJOR GIFT
\$50,000 +

Exxon Mobil Corporation
Microsoft Corporation

## GOLD PRESIDENT'S CIRCLE

\$10,000 - \$14,999

Cisco Systems, Inc.
Cummins, Inc.
Dow Chemical Company
General Electric Company
Wells Fargo \& Company

SILVER PRESIDENT'S CIRCLE
\$5,000 - \$9,999

Apple, Inc.
The Boeing Company
Comcast Corporation
Corning Incorporated
Credit Suisse AG
Dell, Inc.
Du Pont
Eli Lilly and Company
General Motors Foundation
Halliburton Company
The Hershey Company
IBM Corporation
Johnson \& Johnson
Lockheed Martin, Inc.
McDonald's Corporation
Medtronic, Inc.
Motorola Solutions, Inc.
PepsiCo, Inc.
Pfizer Inc.
Procter \& Gamble Co.
Sony Corporation of America
Tenneco
Tyco International Ltd.
Wal-Mart Stores, Inc.

# For more information about our industry expertise, visit: 

## www.duffandphelps.com

About Duff \& Phelps
Duff \& Phelps is the premier global valuation and corporate finance advisor with expertise in complex valuation, dispute consulting, M\&A and restructuring. The firm's more than 1,000 employees serve a diverse range of clients from offices in North America, Europe and Asia. For more information, visit www.duffandphelps.com.

M\&A advisory and capital raising services in the United States are provided by Duff \& Phelps Securities, LLC. Member FINRA/SIPC. Pagemill Partners is a Division of Duff \& Phelps Securities, LLC. M\&A advisory and capital raising services in the United Kingdom and Germany are provided by Duff \& Phelps Securities Ltd., which is authorized and regulated by the Financial Conduct Authority.


[^0]:    
    
    
     statistics in the 2014 Study.
    2. Standard \& Poor's is a division of The McGraw-Hill Companies.
    3. Tickers in the Standard \& Poor's Research Insight $\circledR^{\circledR}$ database that are comprised solely of numbers are not traded on any major or regional U.S. exchange

[^1]:    * Source: S\&P Capital IQ. M\&A activity based on transactions closed in each year, where U.S. incorporated publicly traded companies acquired a $50 \%$ or greater interest.

[^2]:    Notes:
    $G=A+B+C+D+E+F$
    Differences due to rounding

[^3]:    4. The information covering the period between 2009 and 2012 was carried forward from prior studies.
     have recorded multiple goodwill impairments during a calendar year, it will still be considered a single event for purposes of this study.
[^4]:    $\$ 2.50$
    \$1ndex

