

November 2013

# 2013 U.S. Goodwill Impairment Study

## Introduction

In 2009, Duff & Phelps and the Financial Executives Research Foundation (FERF) first published the results of their comprehensive *Goodwill Impairment Study*. The *2009 Study* examined U.S. publicly-traded 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* followed up and expanded on the *2009 Study's* results. In the *2010 Study*, the time horizon over which goodwill impairments were studied was extended 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 introduced in 2012, along with cross-tabulation analyses of the annual survey of FEI members. Now in its fifth year of publication, the *2013 U.S. Goodwill Impairment Study* continues to examine general goodwill impairment trends and trends within different industries through December 2012. Comparative summary statistics by industry are newly featured in this edition, adding another perspective to the 2013 survey of FEI members and the Industry Spotlights.

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# Introduction

## Purpose of the 2013 Study

- To report and examine the general and industry trends of goodwill and goodwill impairment of U.S. companies.
- To report the 2013 results of the annual goodwill impairment survey of FEI members (the “2013 Survey”).

## Highlights of the 2013 Study

The \$51 billion of goodwill impaired by U.S. companies in calendar year 2012 was a significant increase from the 2011 amount of \$29 billion. However, much of the total 2012 goodwill impairment (“GWI”) was dominated by the top 3 impairment events, which accounted for \$24 billion, or 47% of the aggregate amount. Absent these three events, the total GWI would have been of similar magnitude to the prior three years.

Approximately 67% of the total goodwill impairment recorded in 2012 was concentrated in just three industries: Information Technology, Industrials, and Healthcare. Information Technology jumped from fourth place in 2011 to first place in 2012 with the highest amount of goodwill impairment (\$22 billion, or 43% of aggregate impairment), replacing Financials, which had the largest amount of GWI in each of the three previous years. The Industrials sector had the largest percentage of companies with impaired goodwill (8%) followed by Information Technology and Consumer Staples (both at 7%).

Certain industries displayed a notable upward trend from 2010 to 2012, with regards to the proportion of companies with goodwill recognizing a GWI. For instance, Information Technology, increased from 6% in 2010 to 12% 2012, while Industrials doubled from 7% to nearly 14%. Healthcare and Consumer Staples exhibited similar upward trends.

## 2013 Study: Company Base Set Selection and Methodology

Research Insight © 2012 and S&P Capital IQ © 2012 were the primary sources of data for

the 2013 Study.<sup>1</sup> The following screens were applied to narrow the dataset:

- American Depositary Receipts (ADRs) and exchange traded funds (ETFs) were excluded from the Research Insight database leaving 7,356 U.S.-based, U.S.-traded companies as of June 24, 2013.
- From this set, companies whose ticker was solely comprised of numbers, companies which did not have a Global Industry Classification Standard (GICS) 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 5,184 companies.<sup>2</sup>
- These companies, which represented over 93% of U.S.-based, U.S.-traded market capitalization as of December 2012, were used to calculate all ratios and statistics in the 2013 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.

General Motors (GM) recorded a goodwill impairment charge of \$27 billion in the fourth quarter of 2012. However, since the purpose of this study is to report impairments of goodwill initially recorded with economic substance and resulting from a downturn in economic conditions and/or operating performance, the GM goodwill impairment did not meet our study criteria. The following is the background on this impairment:

- \$31 billion of recorded goodwill was the result of fresh start accounting in 2009 (upon GM’s emergence from bankruptcy) and was primarily created by employee benefit obligations and income taxes. In its 2010 10-K GM stated: *“There was no goodwill on an economic basis based on the fair value of our equity, liabilities and identifiable assets”.*

- On October 1, 2012, GM completed its annual goodwill impairment testing without an indication of impairment. Subsequently, GM reversed a \$36 billion deferred tax asset valuation allowance triggering an event-driven impairment test in the fourth quarter. This resulted in the \$27 billion goodwill impairment.

## Highlights of the 2013 Survey

The 2013 Survey captured FEI members’ awareness of current best practices guidance to be employed when performing goodwill impairment analyses. Surprisingly, a significant proportion of respondents were unaware of these efforts. We have therefore included highlights of the following two documents in this year’s study: (i) the draft AICPA Accounting and Valuation Guide *Testing Goodwill for Impairment*; and (ii) The Appraisal Foundation Valuation Advisory Discussion Draft – *The Measurement and Application of Market Participant Acquisition Premiums*.

This year’s survey continued to monitor FEI members’ use of the optional qualitative tests. In the latest analysis, 71% of public companies and 78% of private companies did not apply Step 0 and instead utilized the traditional Step 1 test for goodwill impairment. Further, of the companies that have recorded indefinite-lived intangibles, 68% of public and 48% of private company respondents continue to use the traditional annual fair value test for indefinite-lived intangibles.

## New Developments: Private Company Council

On July 31, 2013 the PCC issued three proposed Accounting Standards Updates (“ASUs”) including an exposure draft on the accounting for goodwill subsequent to a business combination. The PCC is required to send any proposed private-company GAAP exceptions to the FASB for endorsement, which may adopt all, some, or none of the proposed alternatives. As of the time of this writing, the terms of the PCC proposals are evolving and may be subject to change as part of the PCC and the FASB’s due process.

<sup>1</sup> Standard & Poor’s is a division of The McGraw-Hill Companies.

<sup>2</sup> Tickers in the Standard and Poor’s Research Insight database that are comprised solely of numbers are not traded on any major or regional U.S. exchange.

# Goodwill Landscape

## Goodwill Landscape

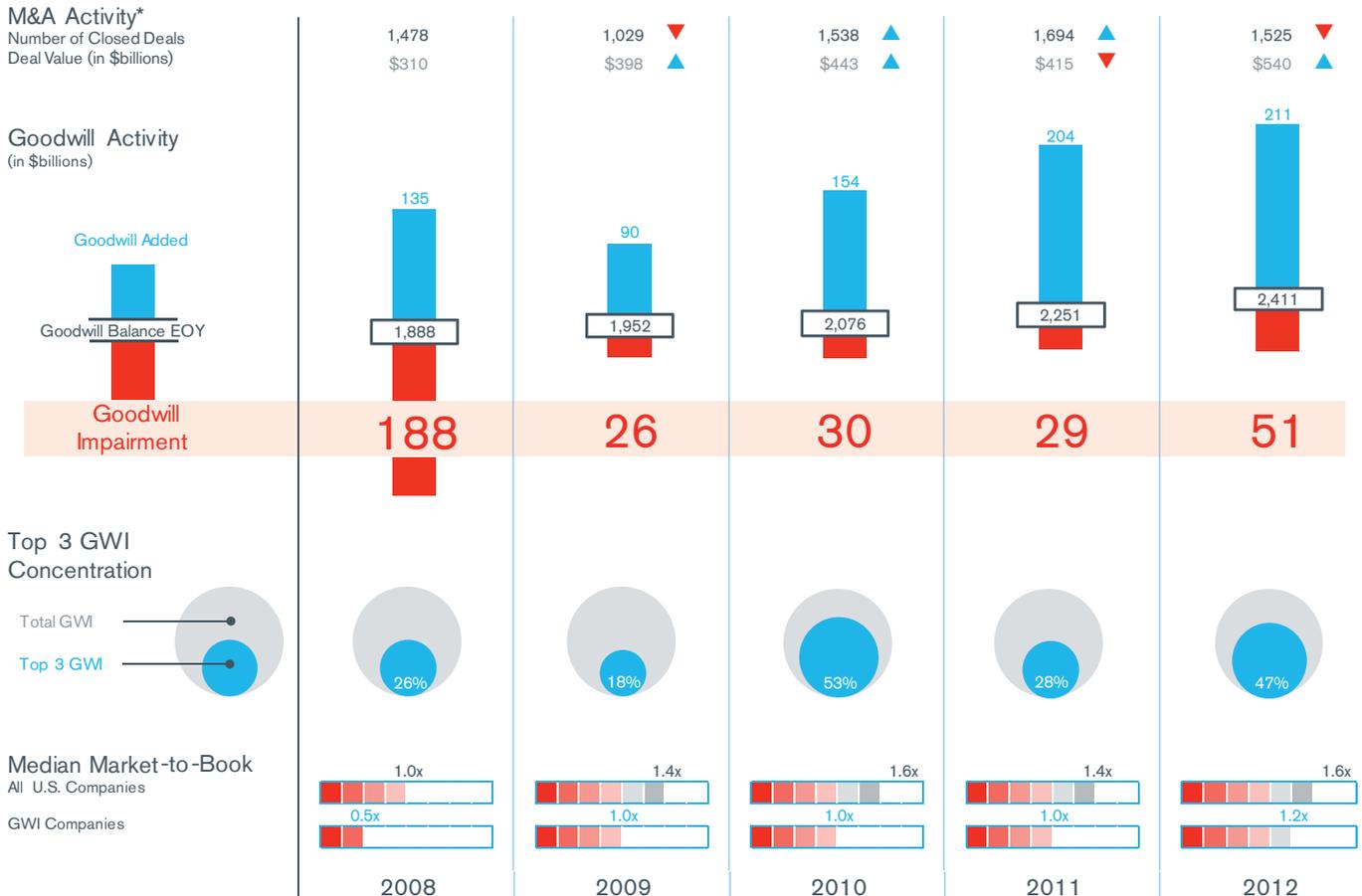
The graphic below captures the evolution of goodwill from 2008 through 2012. If one examines this graphic from the top down, the source of goodwill is provided with a deal summary (both number of deals and value) for transactions to acquire a controlling interest of 50% or more [see M&A Activity]. In 2012, while the deal volume declined, there was a 30% increase in deal value leading to \$211 billion in additional goodwill.

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. For example, we can observe the increase in the goodwill impaired by U.S. companies from \$29 billion in calendar year 2011 to \$51 billion in 2012.

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]. For instance, the top 3 events accounted for 47% of the 2012 aggregate GWI amount, in contrast to 28% in 2011.

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 2013 Study as well as for those companies that recorded a GWI are also provided [see Median Market-to-Book].



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

# Highlights from the AICPA Goodwill Impairment Guide

## The Need for Best Practices in Goodwill Impairment Testing

While it would seem that in the 12 years since the issuance of goodwill impairment guidance by FASB (SFAS 142, *Goodwill and Other Intangible Assets*) all questions on the topic would have been asked and answered, that does not seem to be the case. Certain practice issues have persisted over the years, and further, with the issuance by FASB of its fair value guidance (SFAS 157, *Fair Value Measurements*), one has to ensure that the goodwill impairment test is being performed in accordance with the fair value measurement framework.

## Enter the Goodwill Impairment Guide

To meet the needs of preparers, auditors and valuation specialists, the AICPA developed an Accounting and Valuation Guide on goodwill impairment testing under U.S. GAAP (“the Guide”). The Guide (entitled “Testing Goodwill for Impairment”) is available and can be obtained at [cpa2biz.com](http://cpa2biz.com).

While the Guide is non-authoritative, it continues a tradition set by prior AICPA guides on a range of topics including IPR&D and cheap stock, which have gained wide use and acceptance in practice.

39% of public company respondents and 65% of private company respondents were not aware of the development of the Guide. (Question 12)

Valuations for financial reporting present their own challenges as they require both an understanding of corporate finance principles and asset (including intangible asset) valuation, as well as an operational knowledge of the accounting framework within which the valuation analyses are performed.

## Highlights from the Guide

While the Guide is comprehensive in taking one from A to Z of the goodwill impairment test, a few noteworthy areas rise to the top. These areas include the treatment of shared assets among reporting units, market participant assumptions, issues surrounding the comparison to market capitalization, and guidance on the application of the optional qualitative assessment.

## Shared Assets

It is a fairly common occurrence for a company to have assets and liabilities that are used in the operation of multiple reporting units. The U.S. GAAP requirement is to assign such shared assets and liabilities to the various reporting units using a reasonable and supportable methodology, and apply it consistently. The Guide clarifies that there are multiple ways to address the issue of common use, including but not limited to the following:

- One approach would assume that a shared asset (e.g. trade name) is “owned” by one reporting unit and is “rented out” to other reporting units. To reflect the economics of this hypothetical arrangement, the reporting unit that owns the trade name would

receive an imputed royalty cash inflow, and the reporting units that rent the name would have a corresponding cash outflow. These cash flows would be incorporated in the income approach (and the market approach, as appropriate) used to value the reporting units. This perspective also implies that the carrying amount of the trade name resides on the balance sheet of the owner, while the “renters” have no corresponding assets on their balance sheets.

- A variation of the above view would have the trade name reside on the balance sheet of Corporate and be rented out to all reporting units that use it. This is consistent with the perspective that if the reporting units are sold, they would be sold without ownership of the name, but likely with the right to use it (for a fee).
- In the case when the reporting units employing the trade name would benefit from its use in proportion to certain metrics (e.g. fair value of the reporting unit), it may be appropriate to assign the carrying amount of the company trade name in proportion to that specific metric. Under this view, all reporting units employing the trade name would have a portion of the trade name recorded on their balance sheets.

In addition to shared assets, such as trade names, the issue of allocating shared assets/liabilities arises in the context of pension liabilities, debt, deferred taxes, contingent consideration arrangements and other items.

# Highlights from the AICPA Goodwill Impairment Guide

## Market Participant Assumptions

A fair value measurement assumes that market participants act in their economic best interest. In the context of a reporting unit valuation, this means that in a hypothetical transaction to sell the reporting unit, one should consider the manner in which market participants would operate the reporting unit as well as the impact of any market participant synergies, such that value is maximized.

For example, interrelationships and synergies between two or more reporting units would need to be considered, if value is maximized when market participants operate them together. This will affect assumptions about the projected cash flows and the discount rate (e.g. whether a size premium is appropriate) when applying the income approach. A similar perspective would apply when using the market approach.

A common example is when multiple reporting units benefit from economies of scale, such as common purchasing, which reduces operating costs. If market participants were to operate the subject reporting unit together with other units expecting to realize such economies of scale (for example, if the reporting units would be sold together to maximize value), then it would be appropriate to incorporate the assumption of lower costs in the fair value measurement of the individual reporting unit.

In other words, notwithstanding the fact that the goodwill impairment test assumes the hypothetical sale of the individual reporting unit, one is not precluded from considering synergies among reporting units, as long as this is consistent with the perspective of market participants. However, the reporting units are presumed to be sold individually, which means that synergies and other assumptions would be built into each valuation from the bottom up.

It would not be appropriate to measure the fair value of the reporting units together and then allocate the fair value of the combined reporting units to the individual reporting units (top-down approach).

## Comparison to Market Capitalization

It is considered best practice for public companies to compare the sum of the fair values of their reporting units (and Corporate, if present) to their market capitalization. By its nature, this is a comparison process that seeks to explain any differences, rather than merely observe the difference. Thus, it is best practice to identify and document significant differences between the aggregate fair value and the observed market capitalization, rather than rely on the computation of a non-specific “control premium” as the reconciling item. The subject of control premiums is explored in a best practices document issued by the Appraisal Practices Board, as discussed in the next section. More importantly, unexplained differences in the comparison process may suggest that certain valuation assumptions should be revisited.

The obvious challenge in performing this comparison is when the company has elected the option to perform a qualitative goodwill impairment assessment (a.k.a. Step 0) for some or all of its reporting units. However, the Guide reinforces the importance of the market capitalization comparison process even when the company has opted for the qualitative assessment, characterizing it as a “prudent check” of the aggregated fair values of the reporting units.

The Guide explains how a company can estimate the fair value for the reporting units that were subject to a qualitative assessment. It can consider past valuations, adjusted for subsequent events and circumstances; or, use current carrying amounts, adjusted for an estimate of fair value over the carrying amount.

## Optional Qualitative Assessment

While the optional qualitative assessment has some appeal as it was designed to simplify goodwill impairment testing, it has posed implementation questions. To address this issue, the Guide outlines a framework for the application of this assessment and provides an example illustrating the related thought process.

Approximately 30% of public companies performed the qualitative assessment for some or all of their reporting units. (Question 17)

## Broad and Lasting Benefits

This Guide, along with other AICPA Accounting and Valuation Guides and the Appraisal Practice Board’s Valuation Advisories, make critical contributions to the evolving practice framework being developed by the valuation profession. The objective of these industry efforts is to create greater commonality among valuation standards and best practices. While this type of guidance remains non-authoritative, it is looked to by valuation professionals and auditors as a critical consideration in the valuation analysis and greatly facilitates the audit process as well.

# Market Participant Acquisition Premiums — Highlights from the Appraisal Practices Board Valuation Advisory Discussion Draft

## Control Premiums

For some, control premiums provide a convenient fallback to reconcile certain elements of financial reporting valuations. Often relied upon in goodwill impairment testing, the application of control premiums might follow this line of reasoning:

*Public company ABC estimates the fair value of its reporting units and their aggregate value exceeds its market capitalization by 30%. Control premium studies identify recent transactions in the industry with premiums ranging from 25% to 40%. Company ABC therefore concludes that the values for the reporting units reconcile to its market capitalization.*

This and other perspectives, some drawn from fair market value measures for tax purposes, have resulted in diversity of practice not only among valuation professionals but also among companies performing their own goodwill impairment testing. Recognizing the lack of guidance and diversity in practice, the Appraisal Practices Board (APB) assembled a working group to develop best practices for the application of control premiums in the context of financial reporting.

## Appraisal Practices Board

The APB, formed by The Appraisal Foundation Board of Trustees in 2010, adopts and publishes best practice guidance developed by the Valuation for Financial Reporting Working Groups. These groups were originally facilitated by The Appraisal Foundation.

## Market Participant Acquisition Premiums

The APB working group has taken a significant step in addressing the issues surrounding the application of control premiums. A Valuation Advisory Discussion Draft — *The Measurement and Application of Market Participant Acquisition Premiums* (MPAP) was released for comments in April, 2013.

Introducing MPAP as a new term emphasizes the market participant perspective and differentiates it from control premiums, as used for other valuation purposes.

While the MPAP Valuation Advisory is still in a drafting stage, below are three of the key ideas that have coalesced into best practices guidance on this topic:

1. MPAPs should be supported by reference to enhanced cash flows and/or a reduction of risk;
2. Relying solely on benchmark control premium data to derive a MPAP is not consistent with best practices;
3. MPAP should be applied in the context of total invested capital rather than on an equity basis.

## Enhanced Cash Flows / Risk Reduction

Controlling interests are commonly viewed as having greater value than their minority counterparts because conceptual control is in and of itself valuable. The proposed guidance takes the perspective that the value of control comes from the ability to create future economic benefit by exercising the prerogatives of control. These benefits may come in the form of enhanced cash flows from higher margins, increased growth, improved investment effectiveness or a reduction in risk, to name a few. Absent the ability to derive economic value there is arguably no reason to pay a premium simply for the luxury of control.

## Benchmark Premium Data

Analyzing historical data regarding observed premiums from closed transactions has some merit. However, the quality and relevance of such benchmark data should be critically evaluated to assess its

applicability. The document concludes that relying solely on benchmark premium data to derive a MPAP is insufficient and is not consistent with best practices.

51% of public company respondents relied solely on general market studies to support a control premium, while 25% did not consider control premiums. (Question 14)

## Total Invested Capital Foundation

The traditional method of calculating transaction premiums is founded on the notion that it is the equity holders — not the debt holders — that get the benefits of control. However, this is potentially misleading. The economic benefits realized through exercising the prerogatives of control enhance the fair value of the enterprise as a whole, not just that of the equity.

Premiums computed on an equity basis would differ depending on the capital structure of the company. In contrast, MPAPs expressed as a percentage of Total Invested Capital (sum of debt and equity fair values) would not differ solely due to differences in leverage.

## Concluding Remarks

The guidance also addresses some practical issues to be aware of when analyzing traditionally observed control premiums and transaction data, as part of a more robust MPAP analysis. It also includes an illustration of the application of the new perspective and the assessment of the reasonableness of a MPAP. Overall, the proposed guidance aids in furthering the understanding and support for MPAPs in valuations for financial reporting.

# Survey Results

During the summer of 2013, 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 2013 Survey captures FEI members' awareness of recently-issued draft guidance that will facilitate the process of testing goodwill for impairment. While this guidance is non-authoritative, similar guides have been previously issued on other topics and have gained broad acceptance when performing valuations for financial reporting.

Specifically, we asked if FEI members were familiar with: (i) the Working Draft of AICPA Accounting and Valuation Guide – *Testing Goodwill for Impairment*; and (ii) the Valuation Advisory Discussion Draft – *The Measurement and Application of Market Participant Acquisition Premiums* (MPAP) issued by The Appraisal Foundation's APB. Nearly 50% of all respondents were aware of the new goodwill guidance, whereas only about 20% were familiar with the MPAP guide.

Percentages in these tables reflect the percentages of total responses to the respective questions.<sup>3</sup>

## Question 1: What is your company's industry?

N=115

### Public Company (64)

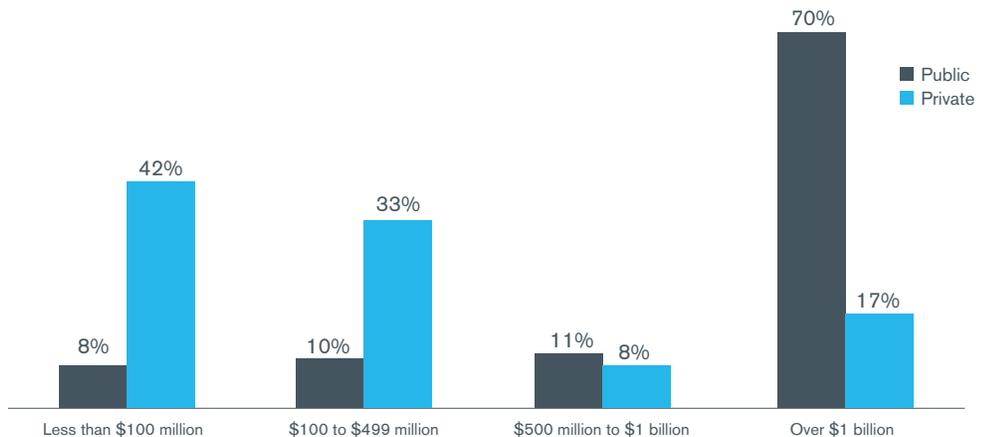
Industry	% of Total
Manufacturing	16%
Banking/Financial Services	14%
Energy/Utilities/Oil & Gas	9%
Medical/Pharmaceutical	6%
Other	5%
Aerospace/Defense	5%
Technology	5%
Non-Profit Organizations	3%
Insurance	3%
Advertising	3%
Service	3%
Chemicals/Plastics	3%
Wholesale	3%
Telecommunications	3%
Distribution	2%
Transportation	2%
Automotive	2%
Electronic	2%
Education	2%
High-Tech or Software	2%
Internet/Multimedia	2%
Consumer Goods	2%
Environmental	2%
Real Estate	2%
Food/Restaurant	2%
Mineral/Mining	2%

### Private Company (51)

Industry	% of Total
Manufacturing	20%
Professional Services	10%
Banking/Financial Services	8%
Transportation	8%
Non-Profit Organizations	6%
Education	6%
Other	6%
Distribution	4%
Energy/Utilities/Oil & Gas	4%
High-Tech or Software	4%
Metals	4%
Medical/Pharmaceutical	2%
Arts/Entertainment/Media	2%
Consulting/Employment Agency	2%
Insurance	2%
Healthcare Services	2%
Retail	2%
Electronic	2%
Advertising	2%
Service	2%
Construction/Engineering	2%
Hotel/Motel	2%

## Question 2: What is the revenue for your company?

N=109

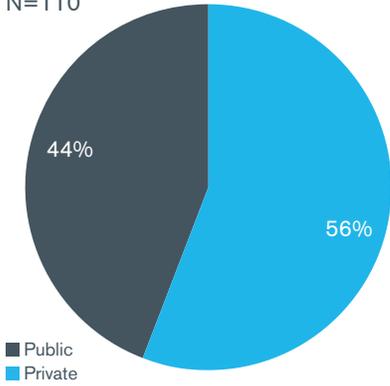


<sup>3</sup> Some totals may not add up to 100% due to rounding.

# Survey Results

## Question 3: Is your company public or private?

N=110



### Public vs. Private and Other Cross-tabs

This year's survey continues to document the differences between the answers received from public and private company respondents, as well as other cross-tabulation analyses to uncover inter-relationships between certain responses.

In certain instances, this feature provided insights into specific subsets of respondents. Summary call-outs of these cross-tabulations are interspersed among the survey results (in blue-shaded text boxes).

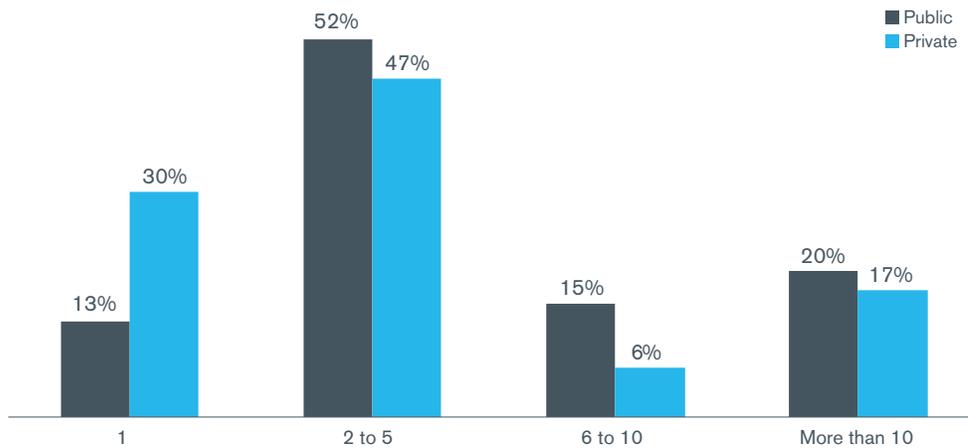
### Sample of Survey Participants

Similar to the 2012 Survey, larger entities (revenues in excess of \$1 billion) make up over two-thirds of public company respondents (see Question 2). In contrast, private companies tend to be in the smallest size category (42% of private companies had revenues lower than \$100 million).

Whether public or private, a majority of companies in the survey have between two and five reporting units (see Question 4).

## Question 4: How many reporting units do you have as of the most recent reporting period?

N=108

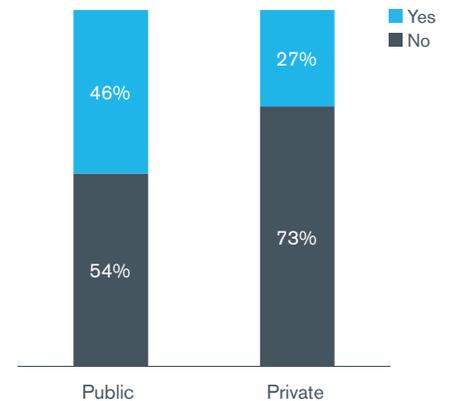


Having a greater number of reporting units did not increase the likelihood of using a valuation consultant. (Question 4)

80% of the companies that performed the GWI analysis in-house did not have impairment. (Question 5)

## Question 5: Do you use a valuation consultant?

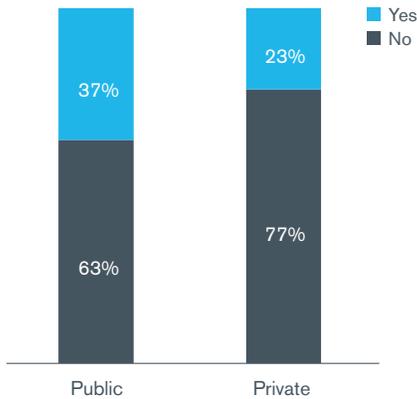
N=109



# Survey Results

## Question 6: Has your company recognized goodwill or other asset impairments in 2012/2013?

N=110



### Goodwill Impairment Trends

The proportion of public companies recognizing an impairment in 2012/2013 (37%) is similar to that in last year's survey (36%). However, private companies showed a notable decline from the 34% observed in last year's survey to the 23% in this year's survey (see Question 6).

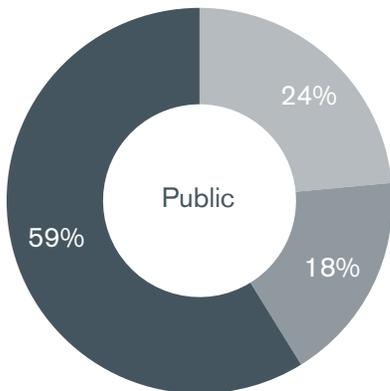


Large public companies were twice as likely to have recognized impairment.

Companies that recognized impairment were twice as likely to use a valuation consultant (Question 6)

## Question 7: What was the reason for the 2012/2013 impairment?

N=29

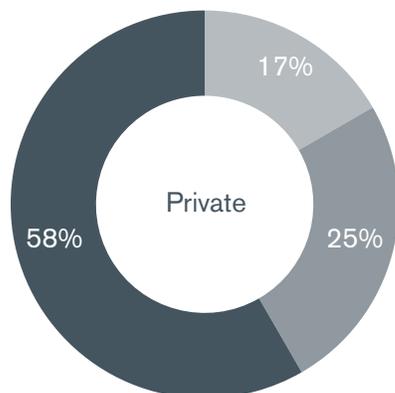


### Causes of Goodwill Impairment

Macroeconomic and industry conditions appear to have improved relative to the 2012 Survey. The proportion of respondents citing factors specific to the reporting unit as the reason for taking an impairment has increased from the prior year's survey, nearing 60% of companies in the 2013 Survey (see Question 7).

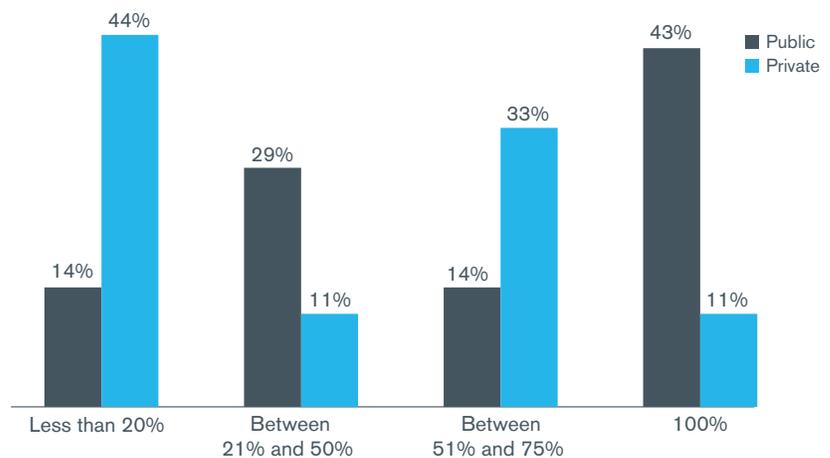
### Extent of Goodwill Write-down

When a goodwill impairment was recognized, public companies were more likely than private companies to write-off 100% of their goodwill carrying amount, with 43% of respondents doing so. In contrast, 44% of private companies wrote down goodwill balances by less than 20% (see Question 8).



## Question 8: If goodwill was impaired in 2012/2013, what was the percentage write-down?

N=23

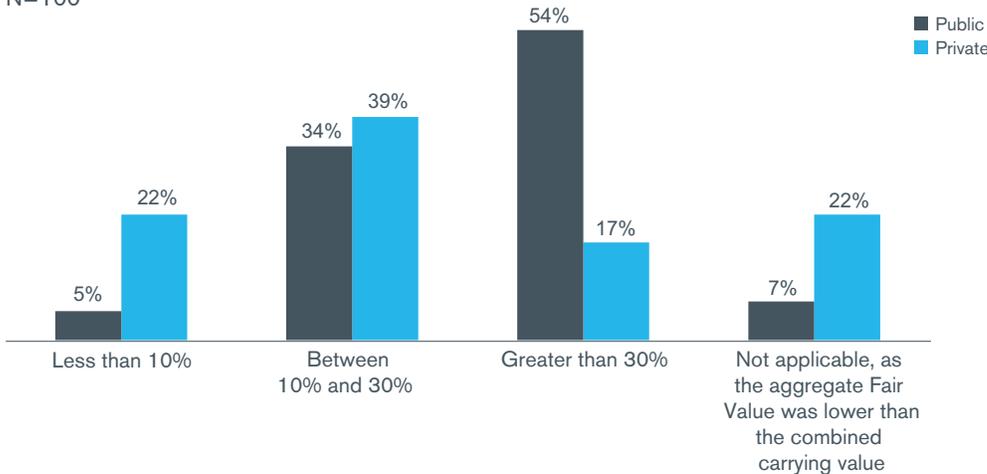


- Overall market downturn
- General industry downturn
- Factors specific to the reporting unit(s)

# Survey Results

## Question 9: In your latest analysis, by what margin did the aggregate fair value of the reporting units exceed their carrying value?

N=100



### Draft AICPA Goodwill Impairment Guide

In this year's survey we asked if FEI members were familiar with the Working Draft of AICPA Accounting and Valuation Guide – *Testing Goodwill for Impairment*.

While this guidance is non-authoritative, it lays out best practices for performing a goodwill impairment analysis.

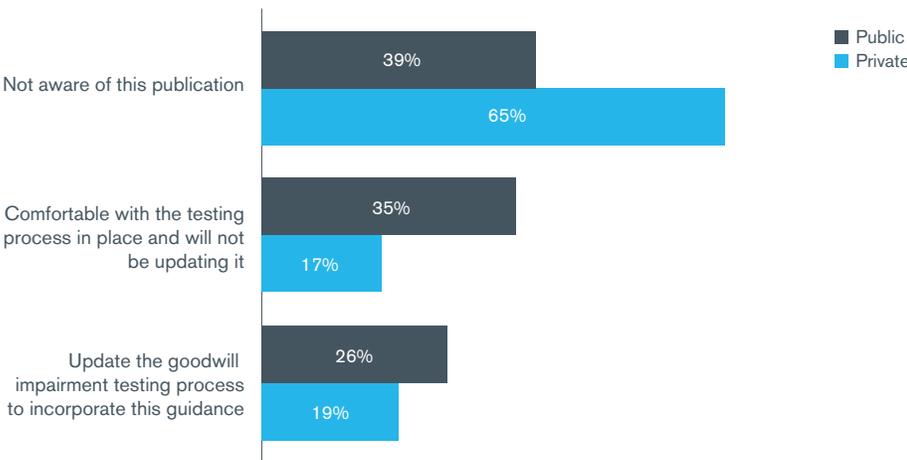
Nearly 39% of public company and 65% of private company respondents were unaware of this goodwill impairment guidance (see Question 12).

Scale may partially explain the divergence between private and public responses. Large public companies (revenues exceeding \$1 billion) were more than twice as likely as small private companies (revenues less than \$100 million) to be aware of this guide.

In addition, if the analysis was performed internally (i.e., without assistance from outside valuation specialists), fewer survey participants had heard of the guide.

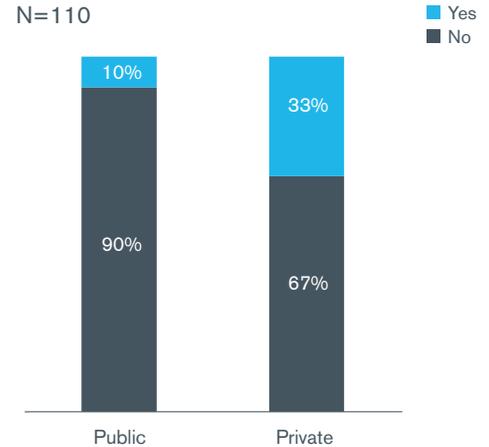
## Question 12: The AICPA is finalizing an Accounting and Valuation Guide, "Testing Goodwill for Impairment" providing best practices guidance on this topic. You are/will:

N=110



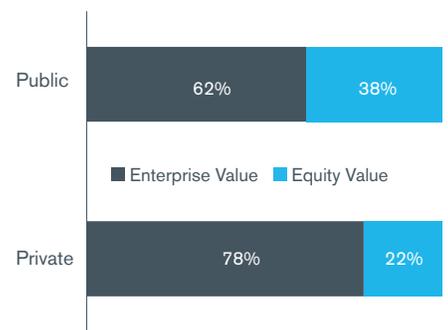
## Question 10: Do you anticipate additional goodwill or other asset impairments during an upcoming interim or annual test?

N=110



## Question 11: Do you perform Step 1 of the goodwill impairment test by comparing the fair value of the equity or enterprise value to their respective carrying amounts?

N=105

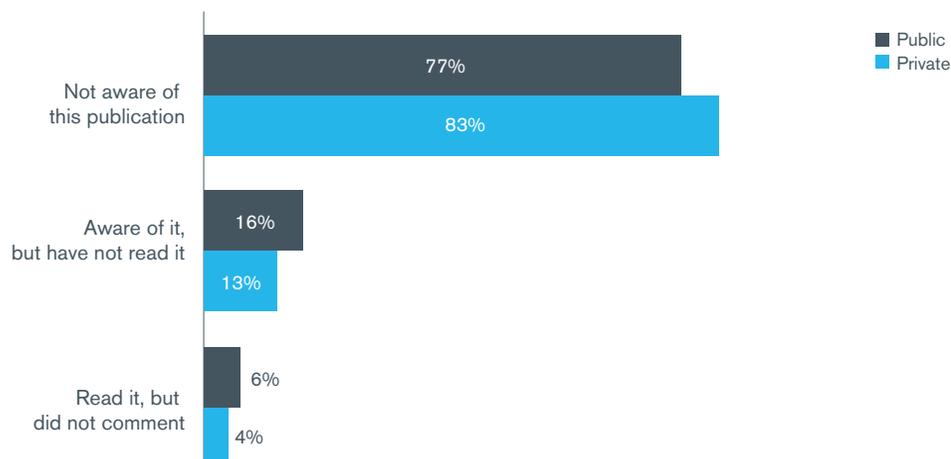


Large public companies were more than twice as likely as small private companies to be aware of the AICPA Guide, and companies performing GWI analyses in-house were less likely to be aware of it. (Question 12)

# Survey Results

**Question 13: In April 2013, The Appraisal Foundation published a discussion draft of a Valuation Advisory entitled “The Measurement and Application of Market Participant Acquisition Premiums”, which provides best practices guidance on this topic. You were/will:**

N=110



33% of large public companies were aware of the MPAP guide as compared to only 15% of small private companies. (Question 13)



94% of companies that relied on a general control premium solely based on market-based studies were either (i) not aware of (80%); or (ii) were aware but had not read (14%) the MPAP guide. (Question 13)



36% of the companies that did not recognize a GWI did so without applying a control premium. (Question 14)

**Question 14: Which approach was used to support the control premium?**

N=106

	Public	Private
A general control premium was derived from market-based studies	51%	9%
A specific analysis of incremental cash flows derived from improving current operations	3%	4%
A specific analysis of incremental cash flows available by combining the operations of the reporting unit with the buyer	0%	2%
A combination of the above	21%	13%
Control premiums were not considered	25%	71%

### Draft MPAP Guide

We also asked FEI members if they were familiar with the Valuation Advisory Discussion Draft – *The Measurement and Application of Market Participant Acquisition Premiums* (MPAP).

Among other items, this draft guide proposes and documents best practices in determining whether a control premium is appropriate in valuations used for financial reporting purposes, as well as how to measure it.

Surprisingly, 83% of private and 77% of public company respondents were unaware of the existence of this draft guide (see Question 13).

One of the highlights of the guide is that the exclusive reliance on benchmark control premium data to derive a MPAP is not consistent with best practices. However, 51% of public companies still relied solely on market-based studies to support the level of control premium in their latest goodwill impairment analysis (see Question 14). In fact, 94% of companies that relied exclusively on general market-based studies were either

(i) not aware of (80%); or (ii) were aware but had not read (14%) the MPAP guide.

Once again, size may help partially explain divergence in responses. One-third of large public companies (revenues exceeding \$1 billion) were aware of the MPAP guide, whereas only 15% of small private companies (revenues less than \$100 million) had heard of the guide.

Curiously, 71% of private company respondents did not consider control premiums altogether.

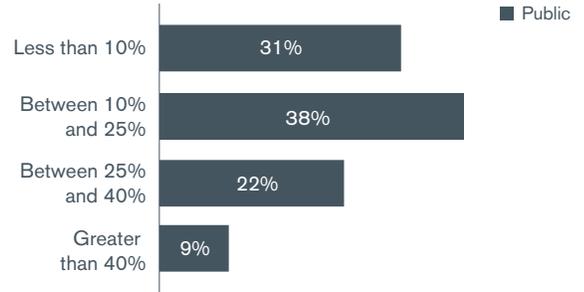
# Survey Results



75% of the public companies that only considered general market-based control premium studies concluded on a premium in the range of 10% to 40% over their market capitalization. (Question 15)

## Question 15: What was the assumed level of control premium above the entity's market capitalization (in your latest analysis)?

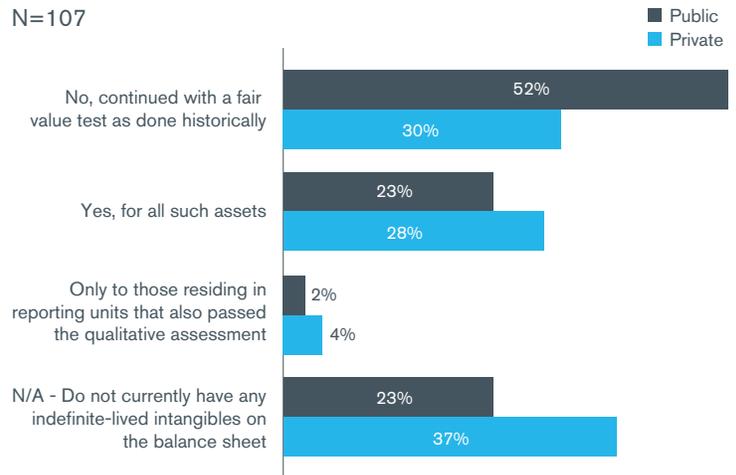
N=55



Companies that applied the qualitative test to indefinite-lived assets were also more likely to have applied the Step 0 qualitative test for goodwill. (Question 16)

## Question 16: In your most recent testing, did you apply the optional qualitative impairment assessment to indefinite-lived intangible assets?

N=107



### Qualitative Impairment Tests

The FASB finalized the guidance on optional qualitative impairment testing for goodwill in late 2011 (codified by ASU 2011-08) and for indefinite-lived intangibles in mid-2012 (codified by ASU 2012-02).

The current year was the first time for some entities, and the second time for others, that the option was elected.

Despite the option, nearly half of public and private companies continued to prefer the traditional Step 1 test for goodwill (45%) (see Question 17). Furthermore, a number of public companies deemed the Step 0 test as not cost effective (13%), or lacking sufficient practical guidance (13%); which brings the total to 71% of public companies not applying Step 0. This number was even greater for private entities, which cited lack of cost effectiveness (22%) and lack of practical guidance (11%), leading to a total of 78% relying exclusively on Step 1.

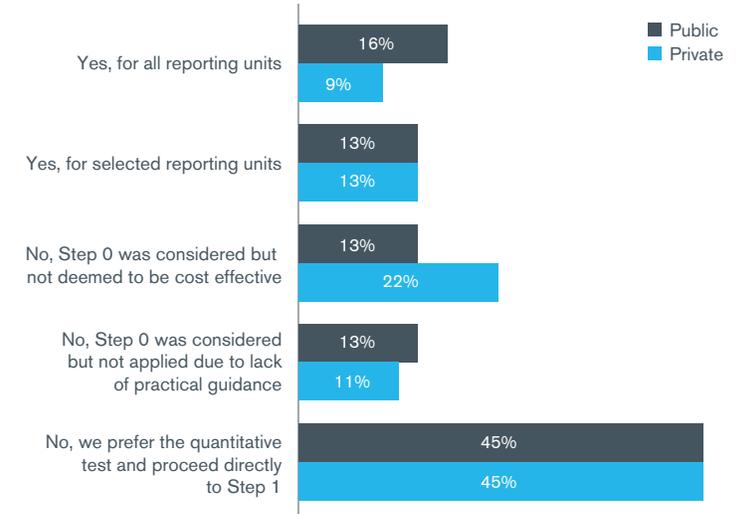
Similarly, 52% of public and 30% of private companies continued to use the traditional annual fair value test for indefinite-lived intangibles (see Question 16). Based on the underlying data, of the companies that have recorded indefinite-lived intangibles, 68% of public and 48% of private company respondents continue to use the traditional test.



33% of large public companies and 18% of small private companies applied Step 0. Companies applying Step 0 were almost twice as likely to hire a third-party valuation consultant. (Question 17)

## Question 17: In your most recent testing, did you apply the optional qualitative assessment ("Step 0") for any reporting unit?

N=107



# Survey Results

## Step 0 Methodology

When applying Step 0, a significant number of respondents did not evaluate inputs and assumptions in the context of a specific valuation approach: 63% of private and 25% public companies appeared to have considered qualitative factors just in general terms (see Question 18).

The remainder of public company respondents seemed to be almost evenly distributed in whether they relied primarily on the income (25%) or on the market approach (21%). Twenty-nine percent relied on both approaches equally.

Thirty-two percent of private entities applying Step 0 relied primarily on the income approach. A very small proportion relied principally on the market approach (5%) and none of them placed equal weights on the income and market approaches.

## Income Approach

If the Income Approach was considered when applying Step 0, cash flow projections received the most focus amongst respondents (see Question 19). Next, the discount rate and terminal year growth rate ranked equally as inputs receiving the most weight in the analysis.

## Market Approach

EBITDA multiples were clearly the factor afforded the most weight if the market approach was considered (see Question 20).

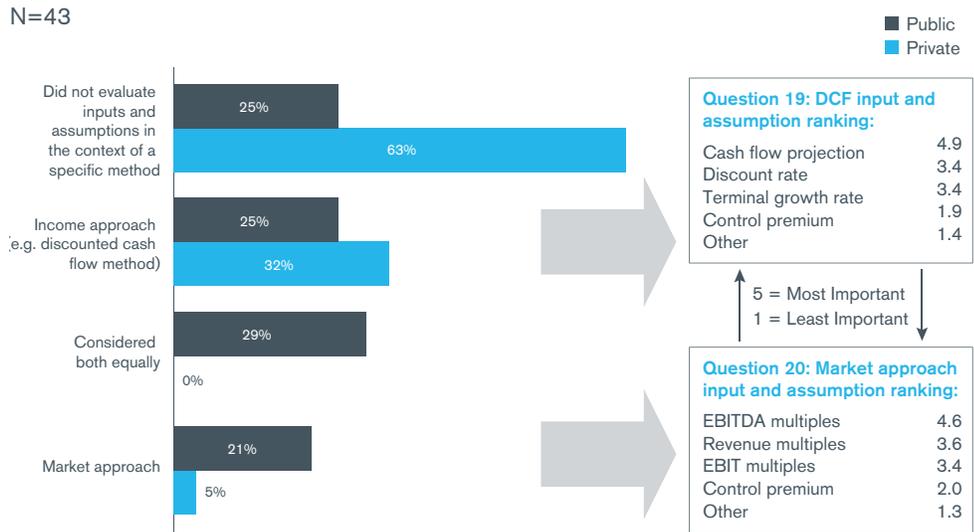
## Step 0 vs. Step 1

Approximately 29% of public and 19% of private companies applying Step 0 still needed to proceed to the traditional Step 1 test (see Question 21).

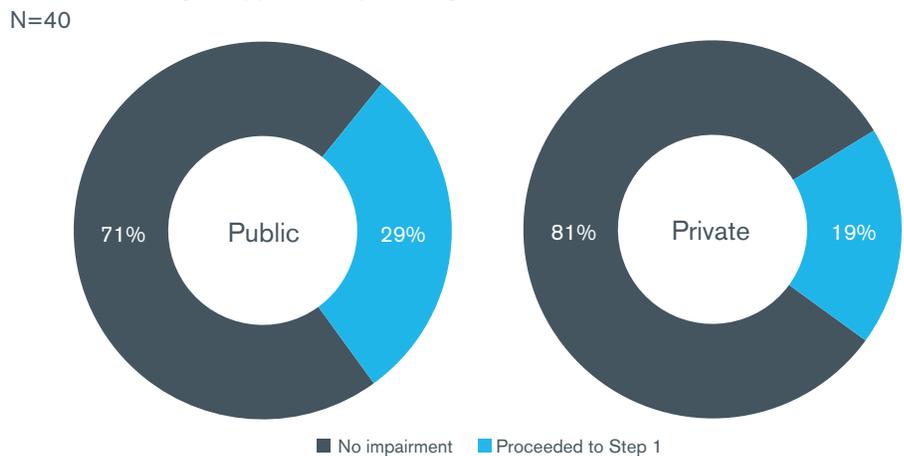
Moreover, if applying Step 0, private and public companies differed somewhat on the frequency with which they planned to refresh their fair value calculations under Step 1. For example, 31% of private companies intended to refresh the fair value analysis only if they failed Step 0, as compared to 13% of public companies (see Question 22).

An equal proportion of public companies (at 43% each) planned to refresh their fair value analysis every 2 to 5 years vs. only when the facts and circumstances warranted such refresh.

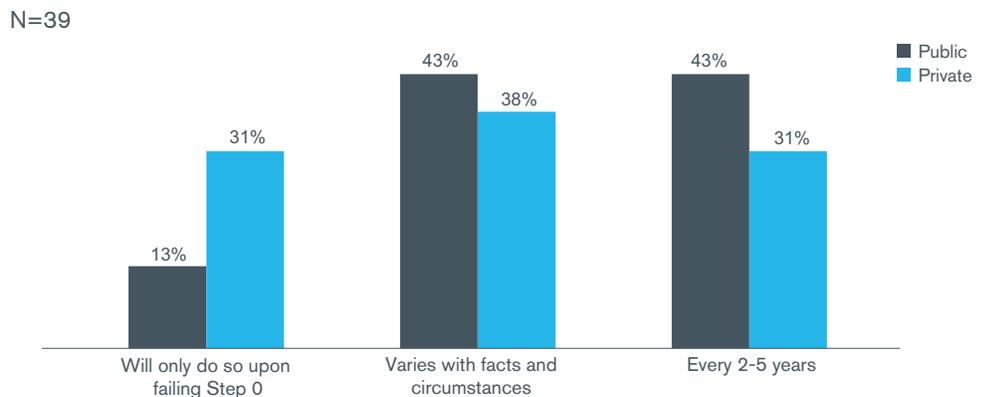
## Question 18: If you applied Step 0, which of the following methods did you give the most weight to when identifying and evaluating the inputs and assumptions for your qualitative assessment?



## Question 21: If you applied Step 0, did you conclude....



## Question 22: If you apply Step 0 to a reporting unit, how often do you plan on calculating its fair value under a Step 1 test?



## Survey Results

As stated earlier, we performed several cross-tab analyses to draw some insights into specific subsets of the respondents to the 2013 Survey.

The first table compares various responses from companies performing the goodwill impairment analysis internally versus those who retained external valuation specialists.

The second table does the same for small private companies and large public companies.

Note that each line item in these tables documents every individual response as a percentage of the total for that group. For example, 37% of companies that use a valuation consultant applied Step 0 to one or more reporting units. Of the respondents performing the goodwill testing in-house, 19% applied Step 0.

The highlights of this cross-tab analysis can be summarized as follows:

### In-house vs. Valuation Consultant

- Companies recognizing a goodwill impairment were about twice as likely to use a valuation consultant (46% vs. 22% in-house). It is not unusual that situations in which an impairment loss is recognized would (i) elicit a greater level of auditor scrutiny of the impairment test; and (ii) be tied to more complexity and judgment used in the analysis; this could conceivably lead to an increased use of external valuation specialists.
- Companies applying Step 0 were also almost twice as likely to have retained an external valuation specialist (37% vs. 19% in-house). Again, the desire to withstand the incremental level of scrutiny by auditors may be a driving factor.
- Companies performing their goodwill impairment analyses in-house were 1.6 times more likely to not consider control premiums (50% vs. 32% for those retaining a specialist).

### Small Private vs. Large Public Companies

- Small private companies were almost three times as likely to be anticipating an impairment loss in the near future, as compared to large public companies (25% vs. 9%).
- Understandably so, small private companies were approximately twice as likely to be unaware of the draft AICPA goodwill impairment guide (75% vs. 33% for large public companies). However, when it came to familiarity with the MPAP discussion draft, the difference in responses was much smaller (85% were unaware of it vs. 67% for large public companies).
- Small private companies were about three times more likely to disregard control premiums altogether in their goodwill impairment analysis (60% vs. 21% for large public companies). Conversely, large public companies were almost nine times more likely to rely on general market studies when supporting their control premium assumptions (44% vs. 5% for small private companies).

### Selected responses: Companies performing GWI testing in-house and those using a valuation consultant

Question	In-House (N=68)	Valuation Consultant (N=41)
2 Revenue > \$1 billion	43%	51%
6 Recognized an impairment	22%	46%
11 Enterprise Value level test	68%	61%
12 Not aware of AICPA GWI Guide	56%	41%
13 Not aware of MPAP discussion draft	81%	78%
14 Control premium based on market study	29%	37%
14 Did not consider control premiums	50%	32%
17 Applied the Step 0 test	19%	37%

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

Question	Small Private (N=20)	Large Public (N=43)
4 Single Reporting Unit	45%	7%
5 Performed analysis in-house	75%	60%
6 Recognized an impairment	15%	33%
10 Anticipate upcoming impairment	25%	9%
12 Not aware of AICPA GWI Guide	75%	33%
13 Not aware of MPAP discussion draft	85%	67%
14 Control premium based on market study	5%	44%
14 Did not consider control premiums	60%	21%
17 Applied the Step 0 test	15%	33%

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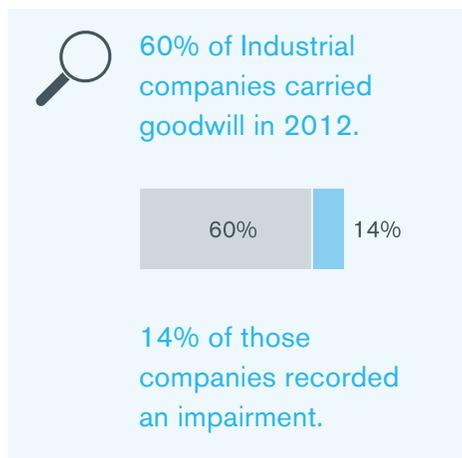
# Summary Statistics by Industry

## (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.

Industries are listed in descending order of their total GWI amounts for 2012. For example, Information Technology tops the list with its \$22 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:



### 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).

In general, 2009 saw a sharp decline in impairment amounts across all industries, with the exception of Utilities.

In 2010, aggregate GWI increased by roughly \$3 billion, with the largest increases observed in Financials, followed by Healthcare.

In 2011, Financials, despite registering the largest decrease in GWI from 2010 to 2011, still had the largest aggregate amount of GWI, at \$5.8 billion.

Information Technology jumped from fourth place in 2011 to first in 2012, recognizing \$22 billion of GWI (43% of 2012's aggregate impairments) in 53 events. It replaced Financials which had the largest amount of GWI in each of the three prior years 2009-2011. The two largest impairment events of the year were both in Information Technology, driving up the total for the industry. Absent those two events, GWI would have been of similar magnitude to the prior three years. The third largest 2012 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 2012, Industrials had the largest percentage of companies that impaired goodwill (8.2%) followed by Information Technology (6.5%) and Consumer Staples (7.0%). The average percentage across all industries held steady at approximately 5% between 2011 and 2012 after having peaked at 9.7% in 2008.

### 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 2008-2012 period Industrials had the highest percent of companies with goodwill in any given year (62% on average), while Financials had the lowest proportion (30% on average). Overall, approximately half of U.S. companies carry some amount of goodwill on their balance sheets; however the average has declined from 48.1% in 2010 to 43.4% in 2012.

### Percent with Goodwill Recording a GWI

The *final 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 with goodwill.

In 2012 Information Technology, Industrials, and Consumer Staples all continued with a notable upward trend from 2010 in the proportion of companies recognizing a GWI. Information Technology increased from 6% to 12% and Industrials also doubled from 7% to 14%.

Overall, the average annual industry impairment percentages ranged from 7% to 20% of companies with goodwill during the 5-year period. Consumer Discretionary had the highest overall percentage during the period (27.2% in 2008).

## 2012 Goodwill Impairment

(Table 1)

	2008		2009		2010		2011		2012													
	Goodwill Impairments: \$ billions (number of events)																					
(Companies)	Percent of Total Companies That Recorded GWI																					
	Percent of Companies with Goodwill																					
	Percent of Companies with Goodwill that Recorded a GWI																					
						Companies with GW	Percent Recording GWI															
Information Technology (816)	28.8 (125)	3.1 (57)	0.8 (32)	3.3 (45)	22.0 (53)	54%	12%	14.5%	6.6%	3.8%	5.6%	6.5%	58.4%	57.0%	61.9%	55.3%	54.2%	24.8%	11.6%	6.2%	10.2%	12.0%
Industrials (613)	16.3 (75)	5.3 (57)	2.5 (28)	2.8 (38)	6.5 (50)	60%	14%	12.4%	9.4%	4.6%	6.4%	8.2%	63.0%	62.1%	64.5%	61.6%	60.2%	19.7%	15.2%	7.1%	10.4%	13.6%
Healthcare (639)	6.2 (37)	0.9 (21)	3.9 (20)	3.7 (27)	6.0 (28)	40%	11%	5.6%	3.2%	3.4%	4.3%	4.4%	46.0%	47.0%	50.0%	40.3%	39.6%	12.2%	6.8%	6.8%	10.7%	11.1%
Consumer Discretionary (646)	46.3 (97)	2.3 (42)	1.7 (18)	2.9 (47)	4.5 (38)	52%	11%	14.8%	6.4%	2.8%	7.5%	5.9%	54.2%	52.5%	54.3%	53.7%	51.9%	27.2%	12.2%	5.1%	13.9%	11.3%
Materials (262)	15.0 (30)	0.3 (11)	0.2 (5)	1.2 (10)	3.6 (10)	44%	9%	11.4%	4.2%	2.1%	4.3%	3.8%	45.8%	45.8%	49.8%	49.8%	43.5%	24.8%	9.1%	4.1%	8.7%	8.8%
Financials (1,532)	34.8 (92)	10.7 (94)	14.8 (42)	5.8 (33)	2.8 (24)	29%	5%	6.2%	6.4%	2.9%	2.2%	1.6%	32.5%	29.8%	29.3%	28.5%	28.9%	19.2%	21.4%	9.8%	7.7%	5.4%
Energy (313)	35.5 (27)	0.3 (8)	1.3 (9)	1.4 (8)	2.4 (11)	34%	10%	9.5%	2.8%	3.1%	2.9%	3.5%	39.6%	40.7%	39.5%	34.3%	33.5%	23.9%	6.9%	7.8%	8.3%	10.5%
Utilities (99)	0.5 (4)	1.3 (5)	2.0 (6)	0.0 (1)	2.1 (4)	56%	7%	3.8%	4.8%	5.9%	1.0%	4.0%	55.8%	54.8%	57.8%	56.7%	55.6%	6.9%	8.8%	10.2%	1.8%	7.3%
Consumer Staples (201)	3.8 (8)	2.3 (10)	2.2 (9)	5.0 (13)	1.3 (14)	48%	14%	4.2%	5.2%	4.8%	7.0%	7.0%	56.3%	55.2%	59.6%	51.9%	48.3%	7.4%	9.4%	8.0%	13.4%	14.4%
Telecomm. Services (63)	1.2 (7)	0.0 (3)	0.4 (2)	2.8 (5)	0.1 (3)	56%	9%	10.1%	4.3%	3.7%	8.1%	4.8%	53.6%	56.5%	59.3%	53.2%	55.6%	18.9%	7.7%	6.3%	15.2%	8.6%
Total* (5,184)	188.4 (502)	26.4 (308)	29.7 (171)	29.1 (227)	51.3 (235)	43%	11%	9.7%	6.0%	3.4%	4.5%	4.5%	47.6%	46.4%	48.1%	44.4%	43.4%	20.4%	12.8%	7.0%	10.2%	10.5%

\*amounts shown are aggregates

# 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.

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.

The percentage of assets impaired (GWI/TA) combines the other two ratios used in this analysis:

$$\frac{\text{(GW/TA)}}{\text{Total Assets}} \times \frac{\text{Goodwill Impairments}}{\text{Goodwill}} = \frac{\text{Goodwill Impairments}}{\text{Total Assets}}$$

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

### Goodwill Intensity

The *first row* in Table 2 illustrates Goodwill to Total Assets (GW/TA) reported over time for each industry, with 2012 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 2012 it ranged from 1.7% for Financials to 23.5% for Healthcare.

Healthcare 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 (Note: as defined in GICS, the Healthcare industry includes, but is not limited to, Biotechnology and Pharmaceutical companies).

Although goodwill intensity has been fairly stable over time, certain industries have shown a recent upward trend. Industrials, Healthcare, Materials and Telecommunications Services all have notable increases. The rest of the industries have remained somewhat constant.

### 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 2012 metrics prominently displayed in the triangle portion of the graphic located on the far right.

The total amount of impairment increased from \$29 billion in 2011 to \$51 billion in 2012, an increase of approximately \$22 billion (as previously shown in Table 1). Close to 85% of the net total increase, or \$19 billion, was concentrated in Information Technology, which resulted in a loss intensity factor of 6.7% (in contrast to a mere 0.3% in 2010 and to 1.2% in 2011). Six other industries displayed a similar upward loss intensity trend from 2010 to 2012.

### 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. Setting 2008 and the financial crisis aside, 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, no other industry exceeded a 0.5% GWI/TA ratio in any year during the 2009-2012 period.

# 2012 Goodwill Impairment (Table 2)

	2008	2009	2010	2011	2012	
	Goodwill Intensity (GW/TA) Loss Intensity (GWI/GW) Loss Intensity (GWI/TA)					
(Companies)						
Information Technology (816)	18.9% 11.2% 2.1%	17.5% 1.2% 0.2%	16.4% 0.3% 0.0%	18.2% 1.2% 0.2%	18.4% 6.7% 1.3%	18% 6.7%
Industrials (613)	12.5% 5.2% 0.7%	12.0% 1.6% 0.2%	14.3% 0.7% 0.1%	15.0% 0.9% 0.1%	15.5% 1.9% 0.3%	16% 1.9%
Healthcare (639)	21.7% 2.6% 0.6%	21.2% 0.4% 0.1%	22.0% 1.3% 0.3%	21.6% 1.3% 0.3%	23.5% 2.0% 0.4%	24% 2.0%
Consumer Discretionary (646)	13.8% 18.1% 2.5%	13.7% 1.0% 0.1%	13.5% 0.6% 0.1%	13.3% 1.4% 0.2%	13.1% 2.0% 0.2%	13% 2.0%
Materials (262)	9.3% 17.4% 1.6%	10.0% 0.4% 0.0%	11.6% 0.2% 0.0%	13.6% 1.6% 0.2%	13.1% 3.8% 0.5%	13% 3.8%
Financials (1,532)	1.9% 8.0% 0.2%	2.0% 2.5% 0.1%	2.2% 3.0% 0.1%	1.8% 1.3% 0.0%	1.7% 0.6% 0.0%	2% 0.6%
Energy (313)	4.3% 35.8% 1.5%	4.3% 0.4% 0.0%	4.7% 1.4% 0.1%	4.0% 2.2% 0.1%	4.4% 3.3% 0.1%	4% 3.3%
Utilities (99)	4.0% 1.2% 0.0%	3.9% 2.8% 0.1%	3.8% 3.3% 0.1%	4.1% 0.0% 0.0%	5.0% 4.3% 0.2%	5% 4.3%
Consumer Staples (201)	20.9% 1.7% 0.4%	20.9% 1.1% 0.2%	20.9% 0.9% 0.2%	21.0% 2.1% 0.4%	19.5% 0.5% 0.2%	20% 0.5%
Telecomm. Services (63)	14.8% 1.2% 0.2%	17.4% 0.0% 0.0%	17.9% 0.3% 0.1%	19.0% 2.3% 0.4%	18.9% 0.1% 0.0%	19% 0.05%
Total* (5,184)	5.8% 9.2% 0.6%	5.9% 1.3% 0.1%	6.5% 1.3% 0.1%	5.9% 1.4% 0.1%	6.0% 2.3% 0.1%	6% 2.3%

\*amounts shown are aggregates

# Industry Spotlights

In contrast to Tables 1 and 2, the Industry Spotlights allow the reader a more in-depth look at the 2012 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

Information Technology jumped from fourth place in 2011 to first in 2012, recognizing \$22 billion of GWI (43% of 2012's aggregate impairments) in 53 events. It replaced Financials which had the largest amount of GWI in each of the three prior years 2009-2011. The two largest impairment events of the year were both in Information Technology, driving up the total for the industry. Absent those two events, GWI would have been of similar magnitude to the prior three years. The third largest 2012 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 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.

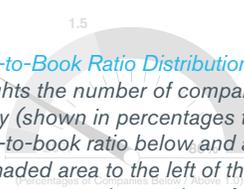
### Goodwill Trends

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.

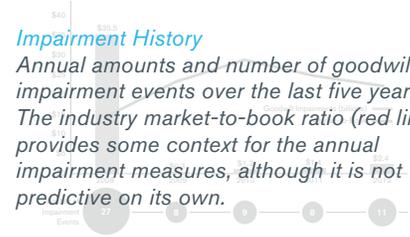


### Top 3 Industry Goodwill Impairments

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.



### Summary Statistics

2012 Goodwill Intensity (GW/TA) 4.4%, Percent of Goodwill Impaired (GWI/GW ratio) 3.3%, 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.



### Index

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 2007 would be worth at the end of 2012.

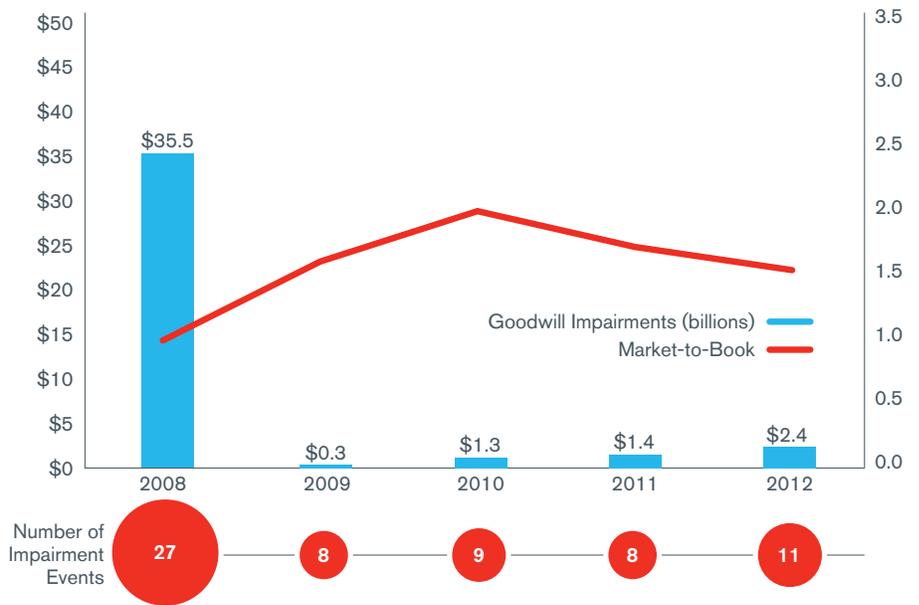
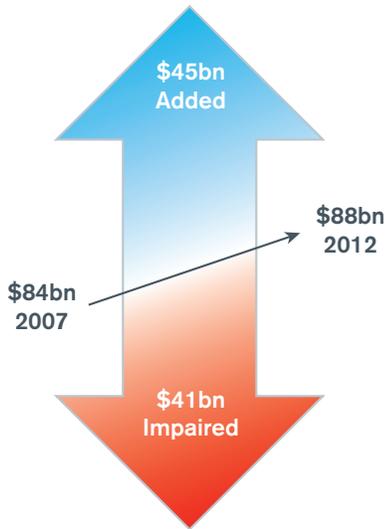


# 2012 Industry Spotlight

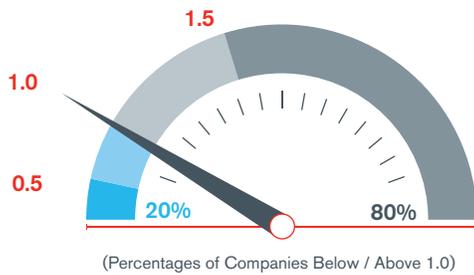
# Energy

GICS Code 10

## Goodwill Trends 2007–2012



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



**313**  
Companies

**4.4%**  
Goodwill to Total Assets  
(GW/TA)

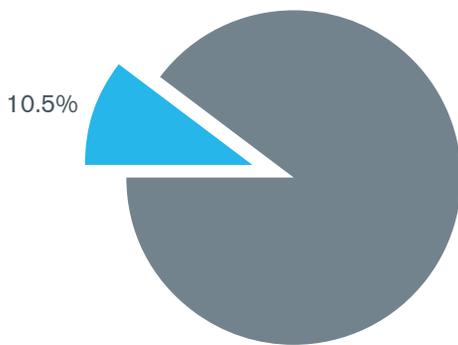
**3.3%**  
Percent of Goodwill  
Impaired (GWI/GW ratio)

**33.5%**  
Companies with  
Goodwill

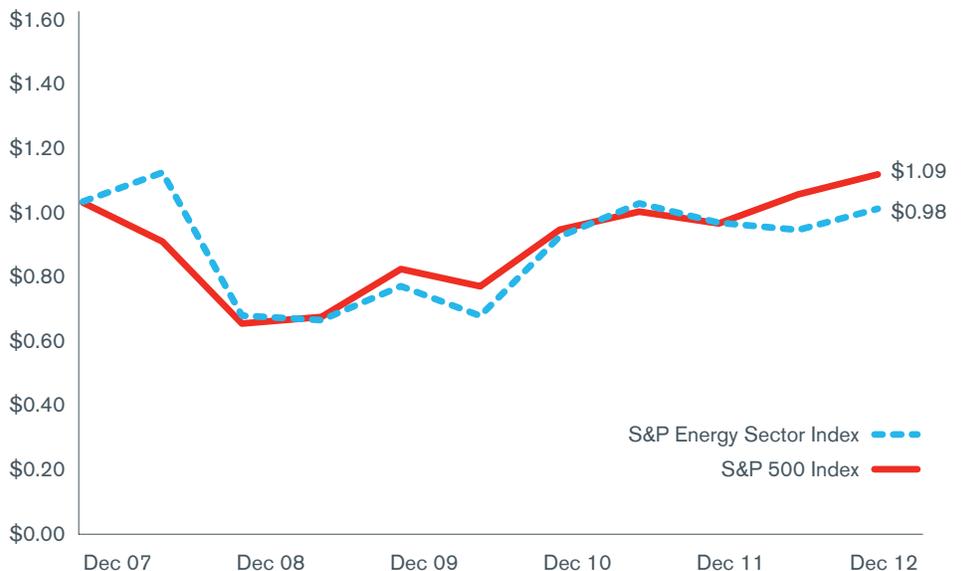
**10.5%**  
Percent of Companies  
with Goodwill that  
Recorded a Goodwill  
Impairment in 2012

**1.6**  
Market-to-Book Ratio  
(median)

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



## Index (Year End 2007 = \$1)



## Top 3 Industry Goodwill Impairments

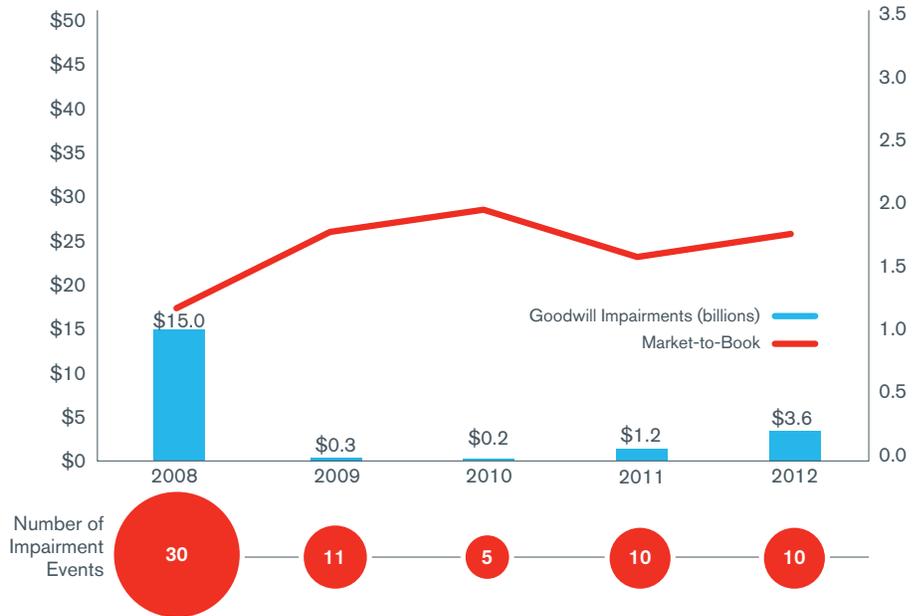
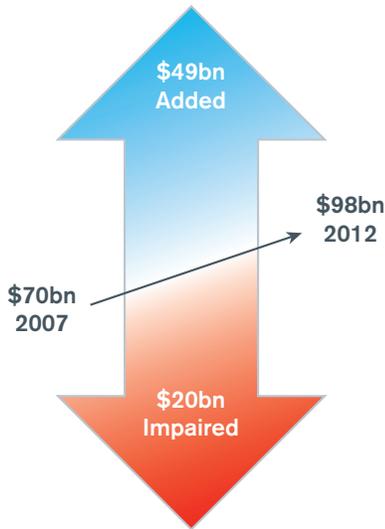
- Alpha Natural Resources, Inc... \$1,714 million
- Arch Coal, Inc.....\$331 million
- SandRidge Energy, Inc.....\$235 million

# 2012 Industry Spotlight

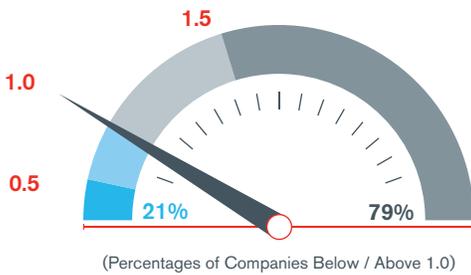
## Materials

GICS Code 15

### Goodwill Trends 2007–2012



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



**262**  
Companies

**13.1%**  
Goodwill to Total Assets  
(GW/TA)

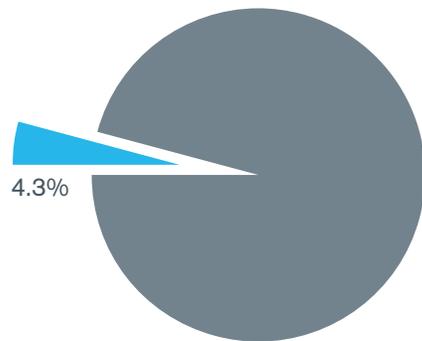
**3.8%**  
Percent of Goodwill  
Impaired (GWI/GW ratio)

**43.5%**  
Companies with  
Goodwill

**8.8%**  
Percent of Companies  
with Goodwill that  
Recorded a Goodwill  
Impairment in 2012

**2.0**  
Market-to-Book Ratio  
(median)

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



### Index (Year End 2007 = \$1)



### Top 3 Industry Goodwill Impairments

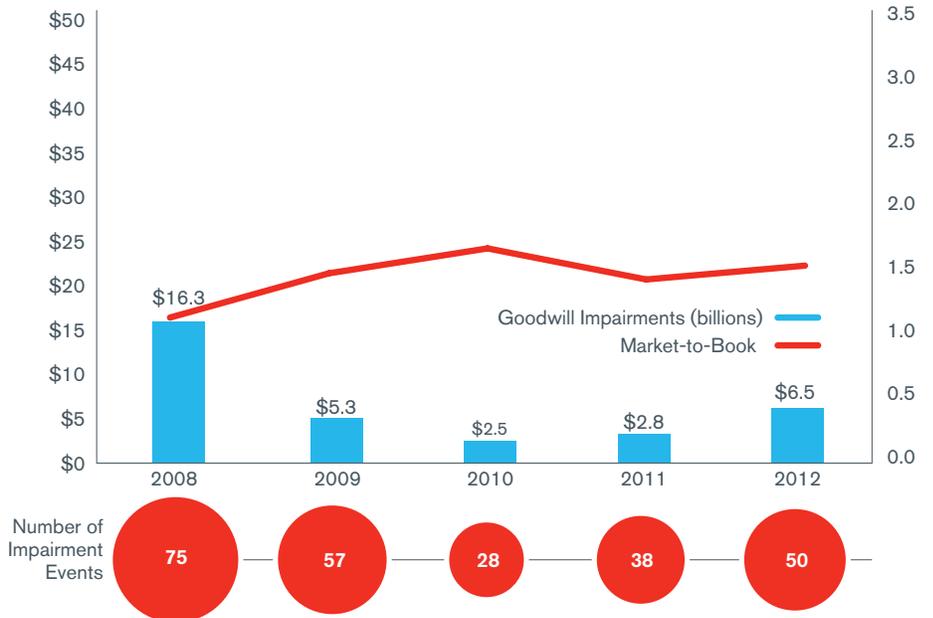
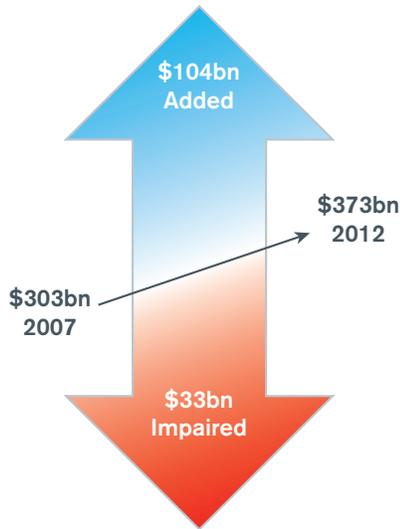
Sealed Air Corp.....	\$1,091 million
Walter Energy, Inc.....	\$1,064 million
Cliffs Natural Resources, Inc.....	\$1,000 million

# 2012 Industry Spotlight

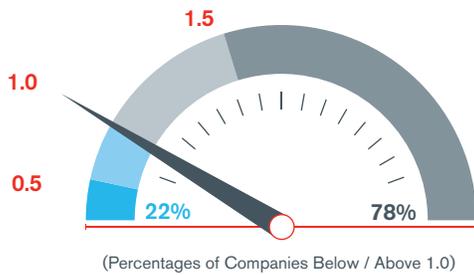
# Industrials

GICS Code 20

## Goodwill Trends 2007–2012



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



**613**  
Companies

**15.5**  
Goodwill to Total Assets (GW/TA)

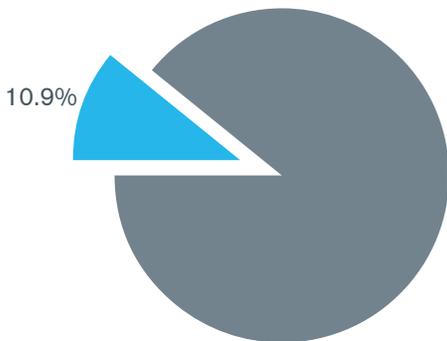
**1.9%**  
Percent of Goodwill Impaired (GWI/GW ratio)

**60.2%**  
Companies with Goodwill

**13.6%**  
Percent of Companies with Goodwill that Recorded a Goodwill Impairment in 2012

**1.7**  
Market-to-Book Ratio (median)

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



## Index (Year End 2007 = \$1)



## Top 3 Industry Goodwill Impairments

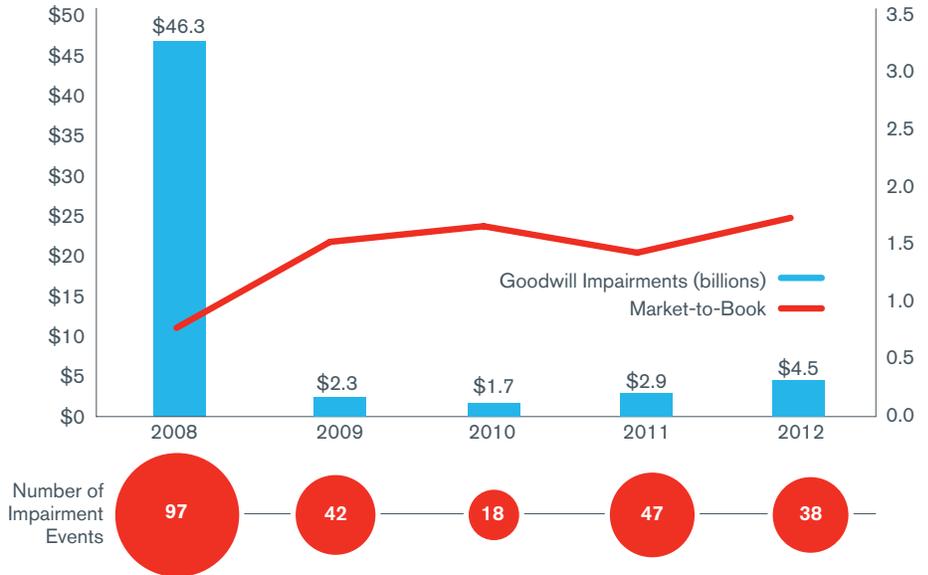
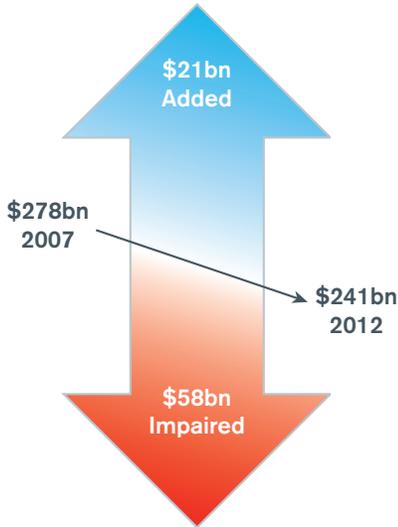
- General Dynamics Corp.....\$1,994 million
- R.R. Donnelley & Sons Co.....\$848 million
- Emerson Electric Co.....\$592 million

# 2012 Industry Spotlight

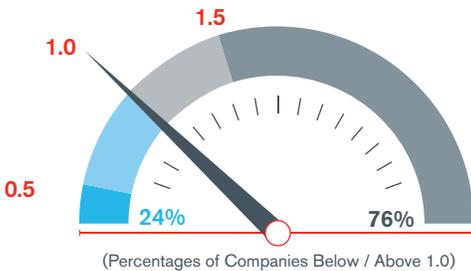
# Consumer Discretionary

GICS Code 25

## Goodwill Trends 2007–2012



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



**646**  
Companies

**13.1%**  
Goodwill to Total Assets  
(GW/TA)

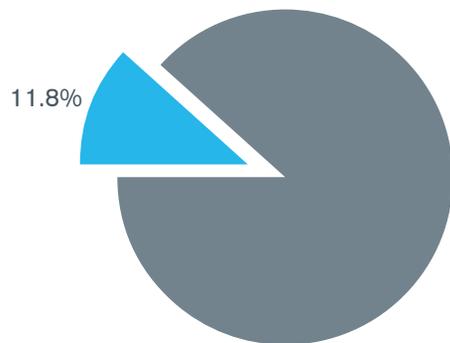
**2.0%**  
Percent of Goodwill  
Impaired (GWI/GW ratio)

**51.9%**  
Companies with  
Goodwill

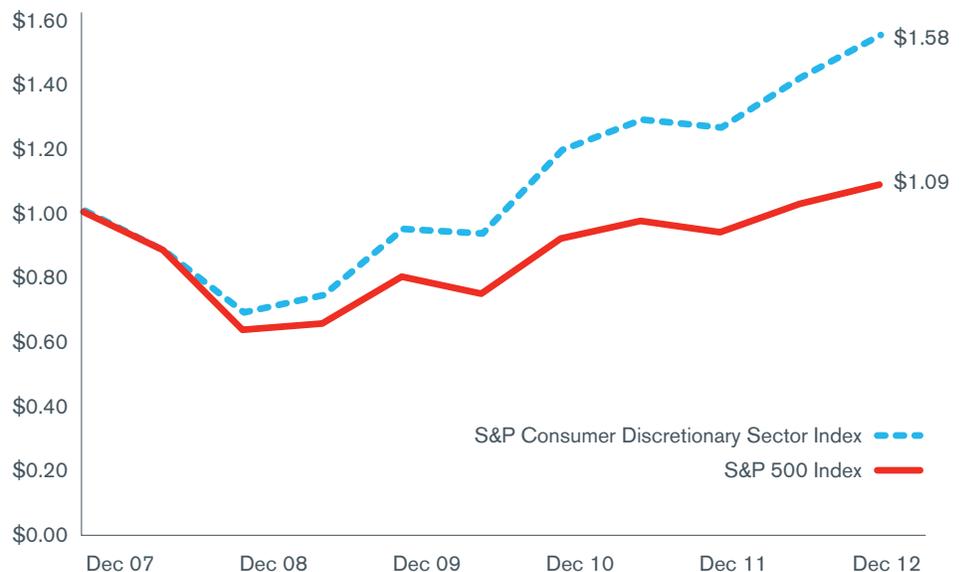
**11.3%**  
Percent of Companies  
with Goodwill that  
Recorded a Goodwill  
Impairment in 2012

**1.8**  
Market-to-Book Ratio  
(median)

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



## Index (Year End 2007 = \$1)



## Top 3 Industry Goodwill Impairments

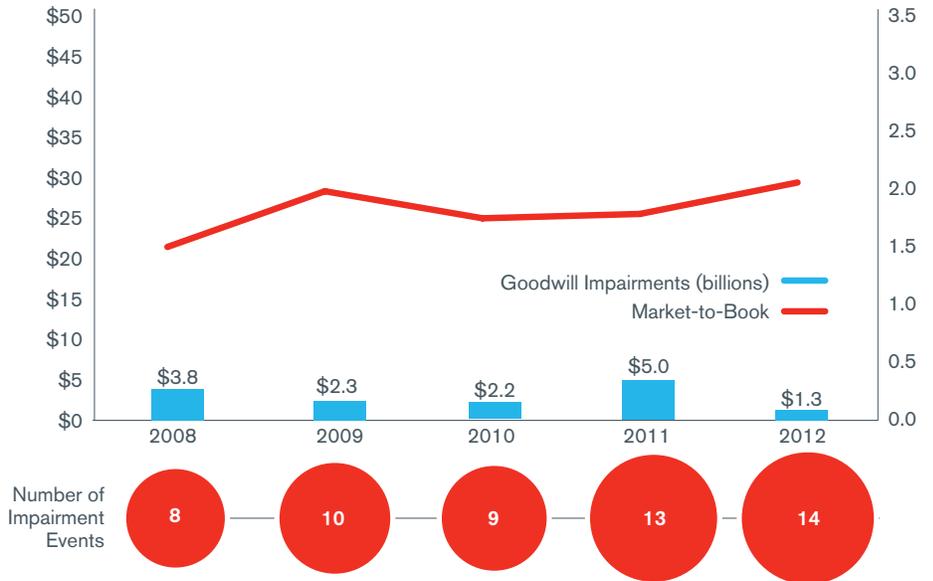
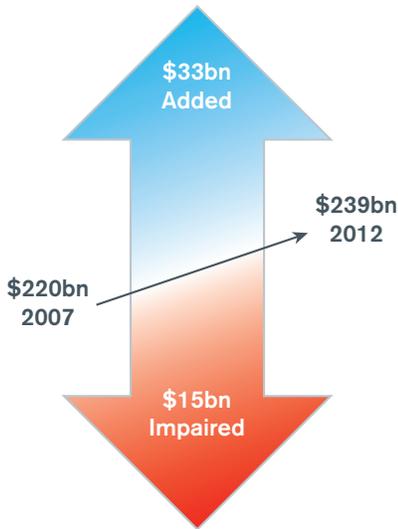
Best Buy Co., Inc.	\$1,207 million
Staples, Inc.	\$772 million
GameStop Corp.	\$627 million

# 2012 Industry Spotlight

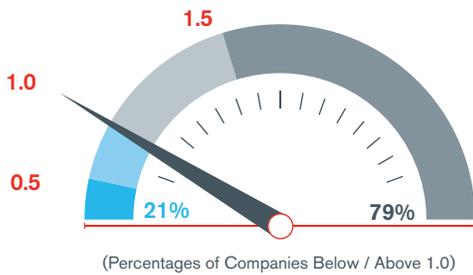
# Consumer Staples

GICS Code 30

## Goodwill Trends 2007–2012



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



**201**  
Companies

**19.5%**  
Goodwill to Total Assets  
(GW/TA)

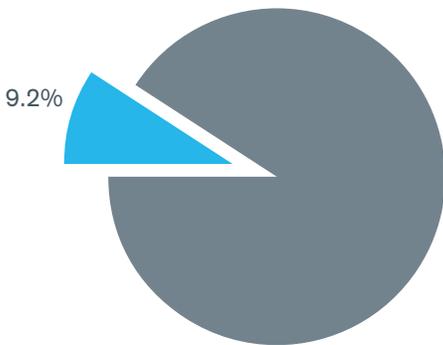
**0.5%**  
Percent of Goodwill  
Impaired (GWI/GW ratio)

**48.3%**  
Companies with  
Goodwill

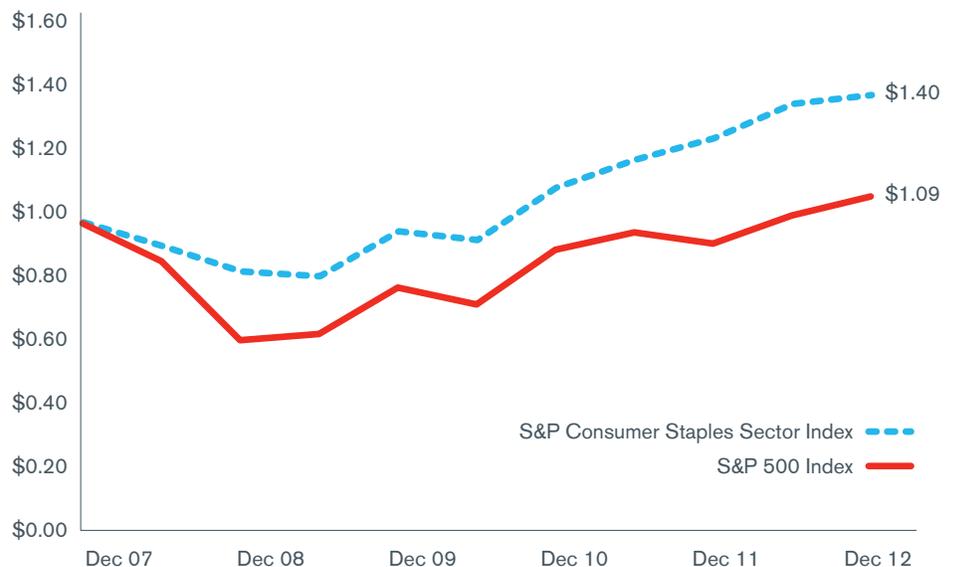
**14.4%**  
Percent of Companies  
with Goodwill that  
Recorded a Goodwill  
Impairment in 2012

**2.1**  
Market-to-Book Ratio  
(median)

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



## Index (Year End 2007 = \$1)



## Top 3 Industry Goodwill Impairments

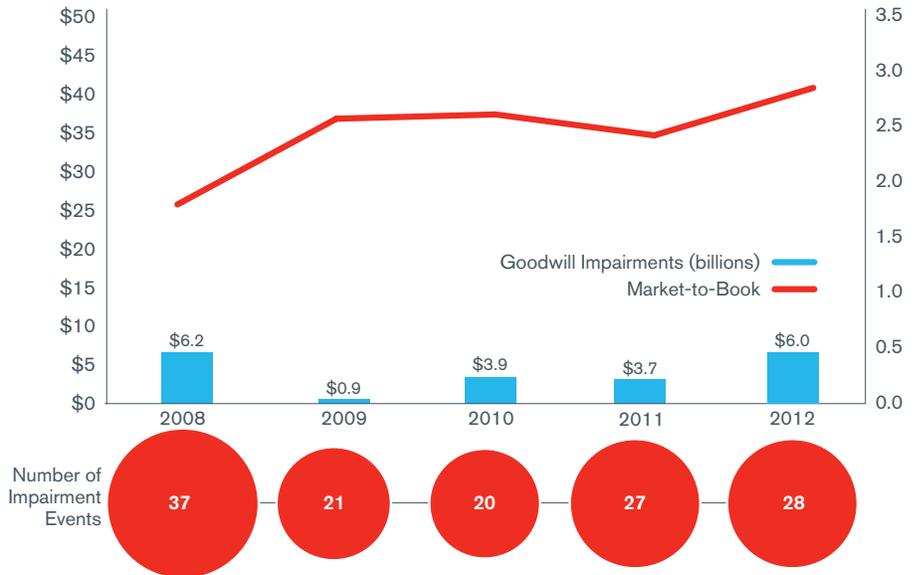
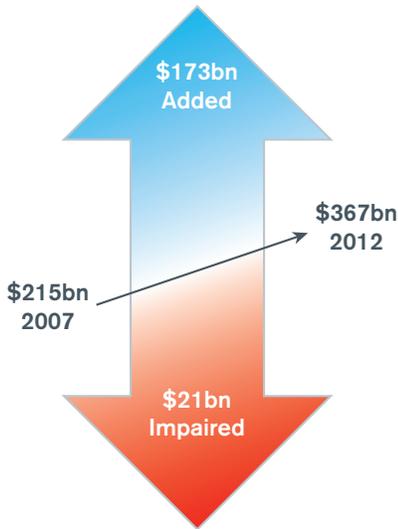
SUPERVALU, Inc.	\$460 million
Central European Distribution Corp.	\$328 million
Nash Finch Co.	\$167 million

# 2012 Industry Spotlight

# Healthcare

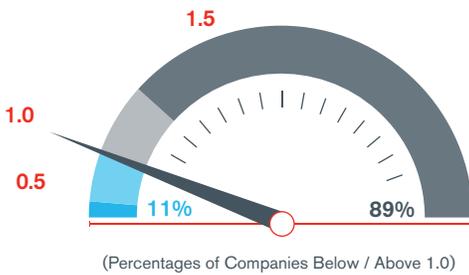
GICS Code 35

## Goodwill Trends 2007–2012



## Market-to-Book Ratio Distribution

(Based on Number of Companies)



**639**  
Companies

**23.5%**  
Goodwill to Total Assets (GW/TA)

**2.0%**  
Percent of Goodwill Impaired (GWI/GW ratio)

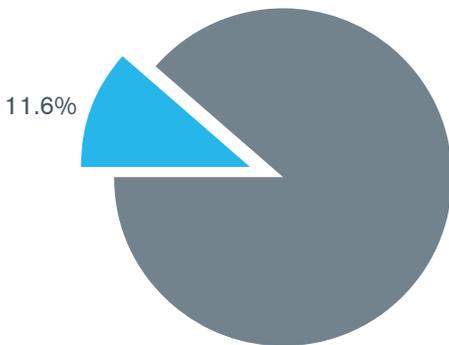
**39.6%**  
Companies with Goodwill

**11.1%**  
Percent of Companies with Goodwill that Recorded a Goodwill Impairment in 2012

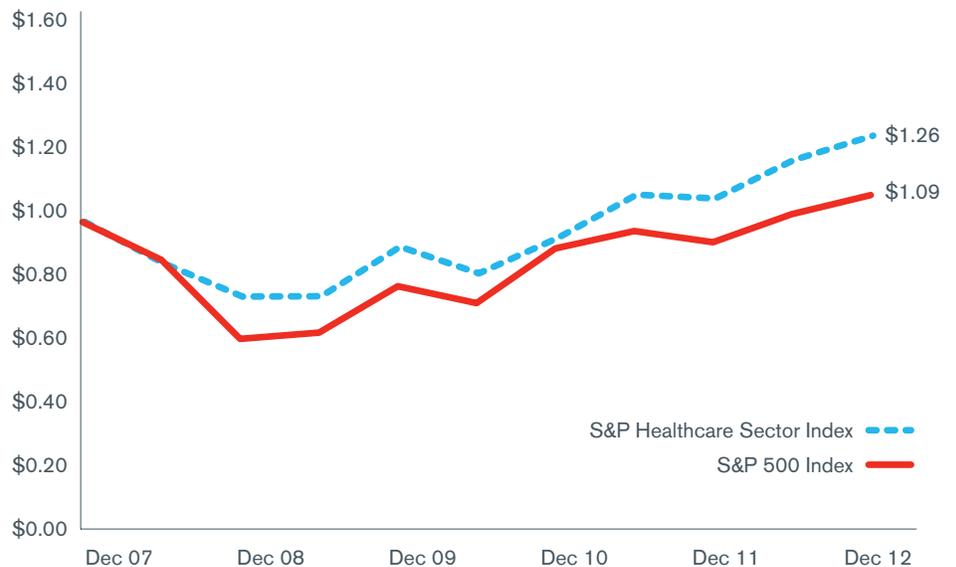
**2.8**  
Market-to-Book Ratio (median)

## Size of Industry

(Relative to Study's Total Market Cap)



## Index (Year End 2007 = \$1)



## Top 3 Industry Goodwill Impairments

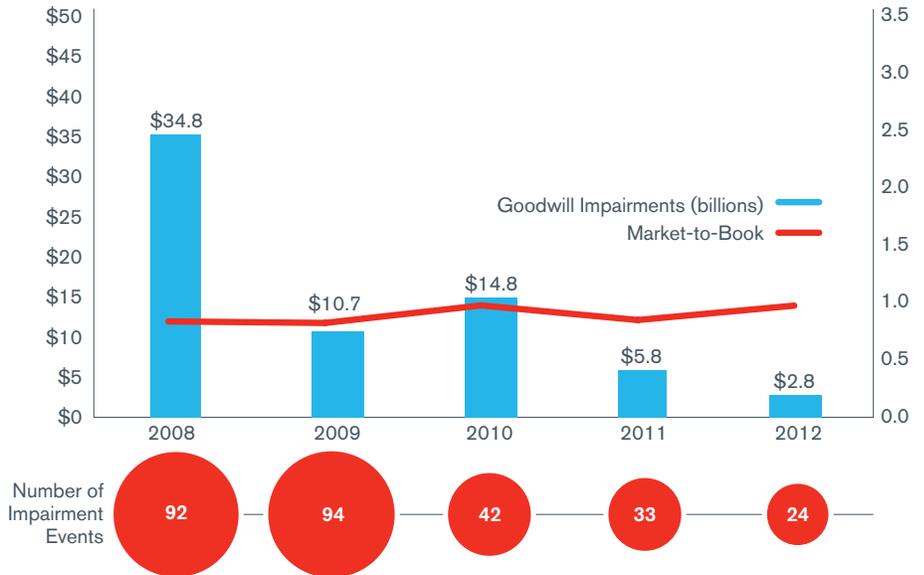
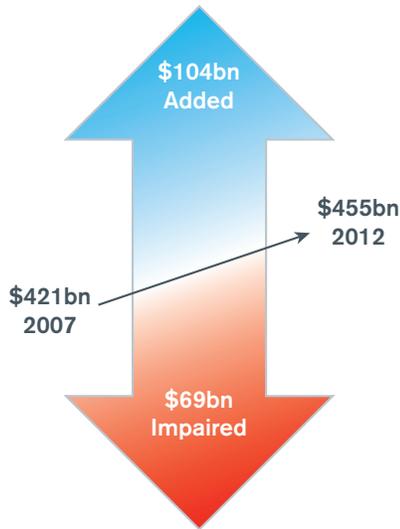
Boston Scientific Corp.	\$4,350 million
Endo Health Solutions, Inc.	\$557 million
Teleflex, Inc.	\$332 million

# 2012 Industry Spotlight

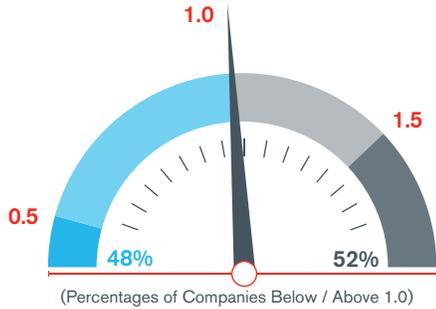
# Financials

GICS Code 40

## Goodwill Trends 2007–2012



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



**1,532**  
Companies

**1.7%**  
Goodwill to Total Assets  
(GW/TA)

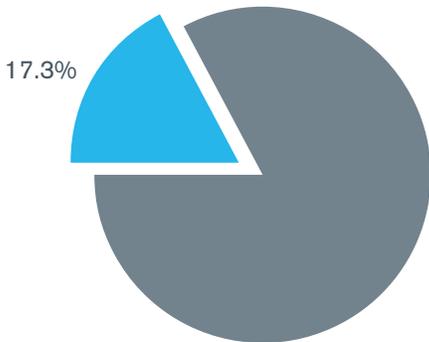
**0.6%**  
Percent of Goodwill  
Impaired (GWI/GW ratio)

**28.9%**  
Companies with  
Goodwill

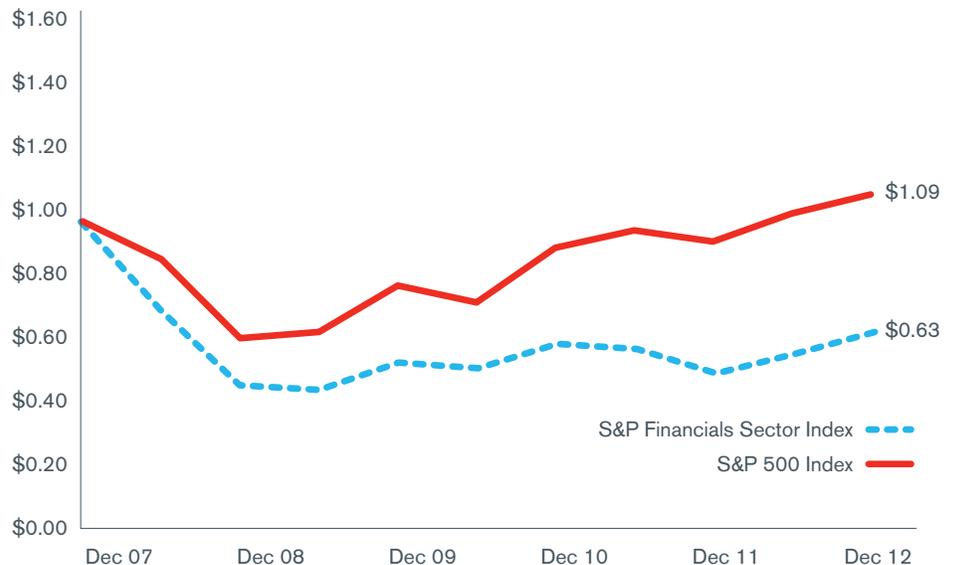
**5.4%**  
Percent of Companies  
with Goodwill that  
Recorded a Goodwill  
Impairment in 2012

**1.0**  
Market-to-Book Ratio  
(median)

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



## Index (Year End 2007 = \$1)



## Top 3 Industry Goodwill Impairments

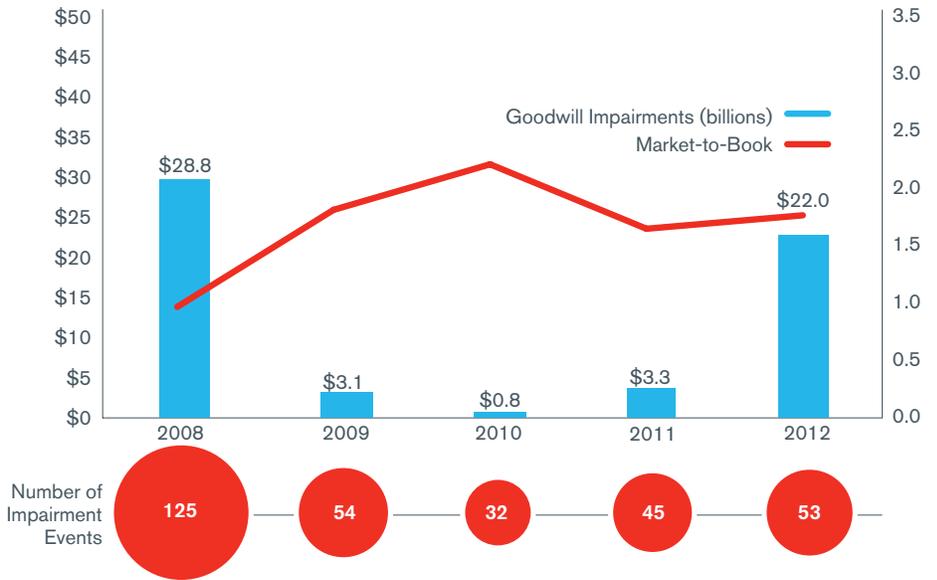
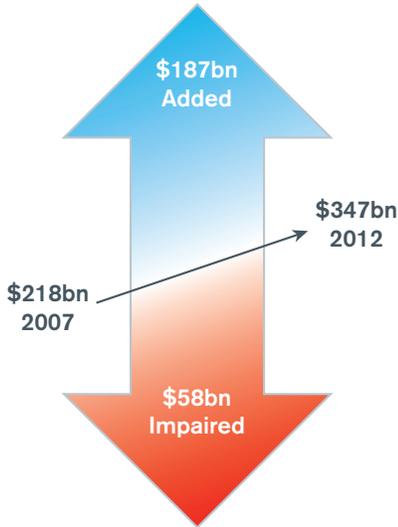
MetLife, Inc.	\$1,868 million
Hartford Financial Services Group, Inc.	\$342 million
Investment Technology Group, Inc.	\$274 million

# 2012 Industry Spotlight

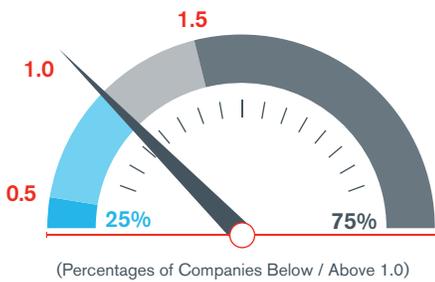
# Information Technology

GICS Code 45

## Goodwill Trends 2007–2012



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



**816**  
Companies

**18.4%**  
Goodwill to Total Assets  
(GW/TA)

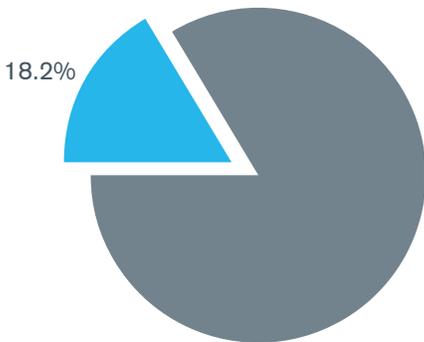
**6.7%**  
Percent of Goodwill  
Impaired (GWI/GW ratio)

**54.2%**  
Companies with  
Goodwill

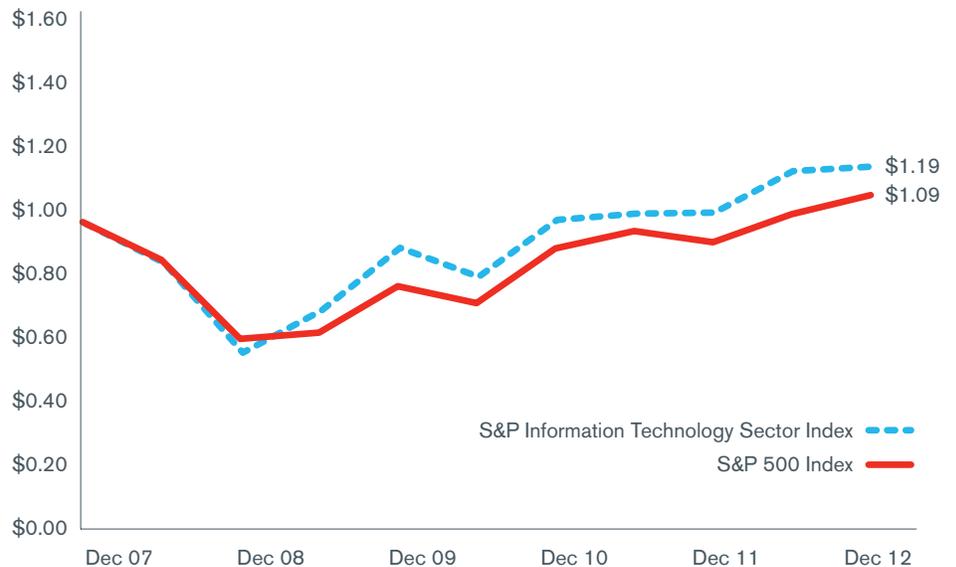
**12.0%**  
Percent of Companies  
with Goodwill that  
Recorded a Goodwill  
Impairment in 2012

**1.8**  
Market-to-Book Ratio  
(median)

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



## Index (Year End 2007 = \$1)



## Top 3 Industry Goodwill Impairments

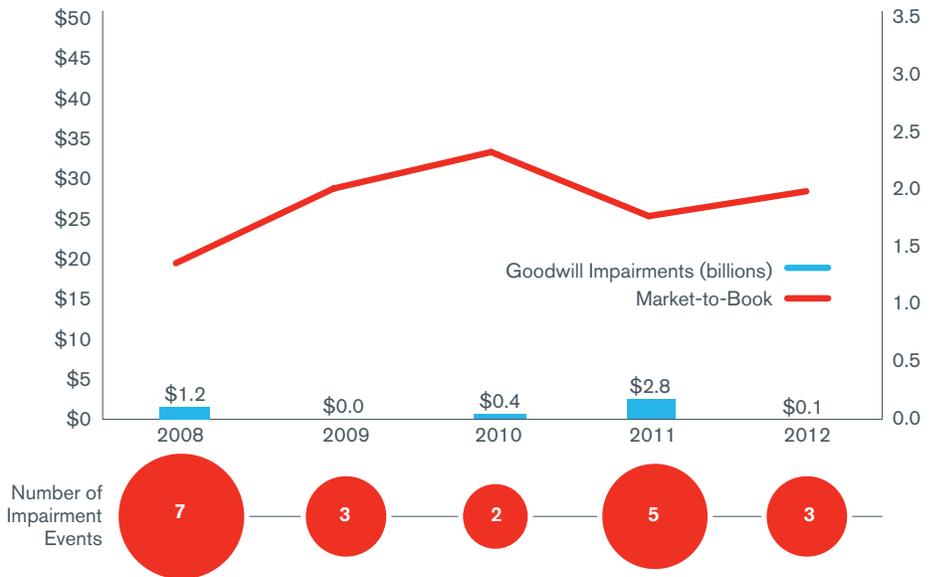
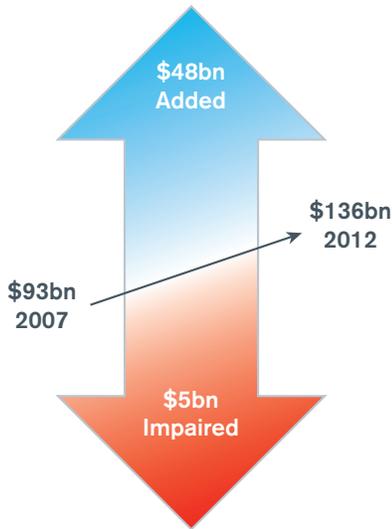
Hewlett-Packard Co.	\$13,700 million
Microsoft Corp.	\$6,193 million
Applied Materials, Inc.	\$421 million

# 2012 Industry Spotlight

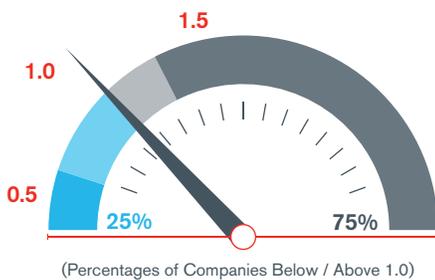
# Telecommunication Services

GICS Code 50

## Goodwill Trends 2007–2012



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



**63**  
Companies

**18.9%**  
Goodwill to Total Assets  
(GW/TA)

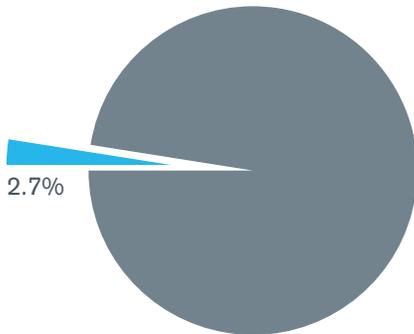
**0.0%**  
Percent of Goodwill  
Impaired (GWI/GW ratio)

**55.6%**  
Companies with  
Goodwill

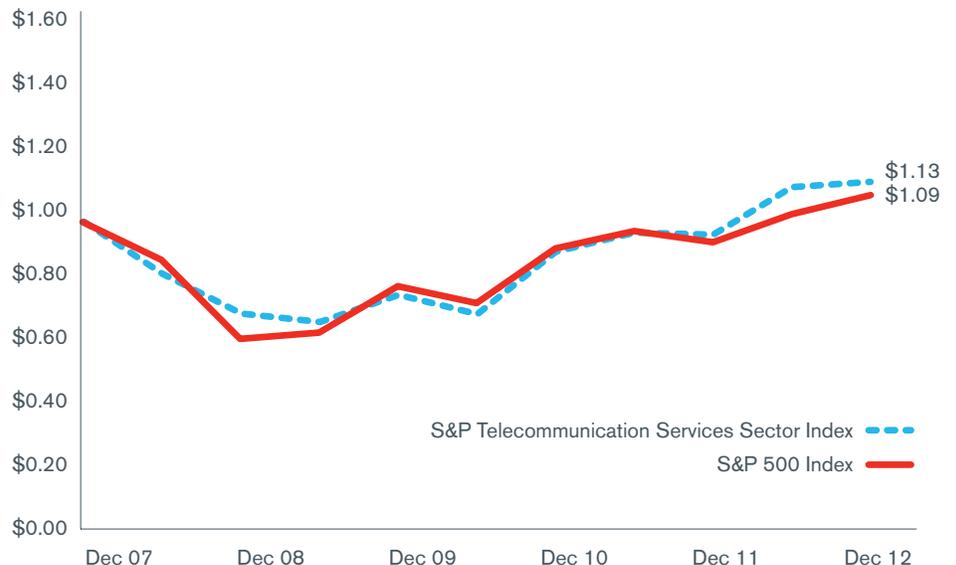
**8.6%**  
Percent of Companies  
with Goodwill that  
Recorded a Goodwill  
Impairment in 2012

**2.0**  
Market-to-Book Ratio  
(median)

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



## Index (Year End 2007 = \$1)



## Top 3 Industry Goodwill Impairments

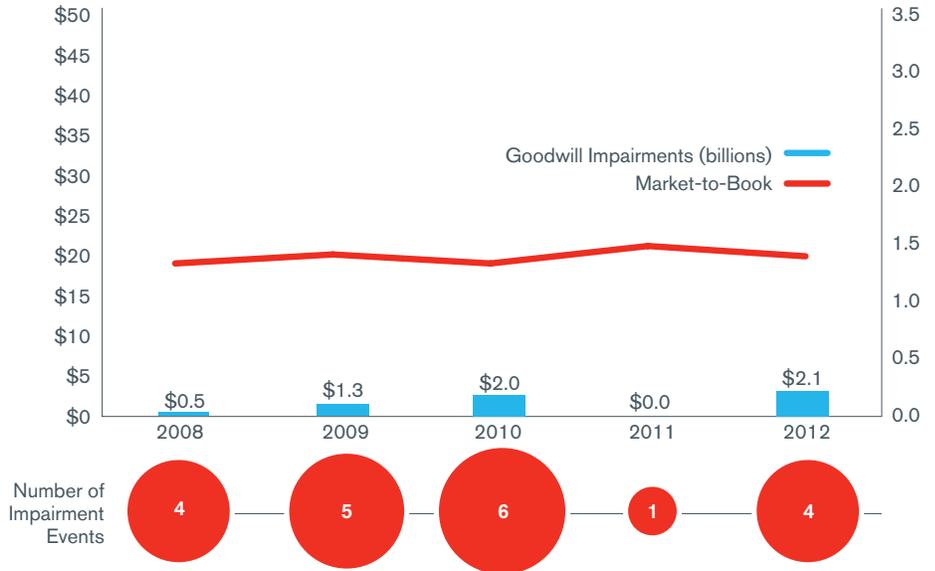
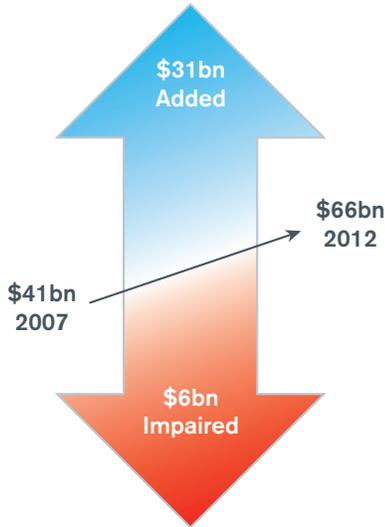
Inteliquent, Inc.	\$50 million
Shenandoah Telecommunications Co.	\$11 million
Cons. Communications Holdings, Inc.	\$1 million

# 2012 Industry Spotlight

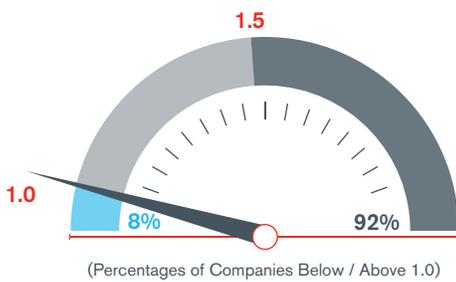
## Utilities

GICS Code 55

### Goodwill Trends 2007–2012



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



**99**  
Companies

**5.0%**  
Goodwill to Total Assets  
(GW/TA)

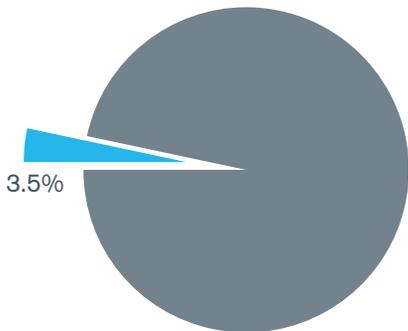
**4.3%**  
Percent of Goodwill  
Impaired (GWI/GW ratio)

**55.6%**  
Companies with  
Goodwill

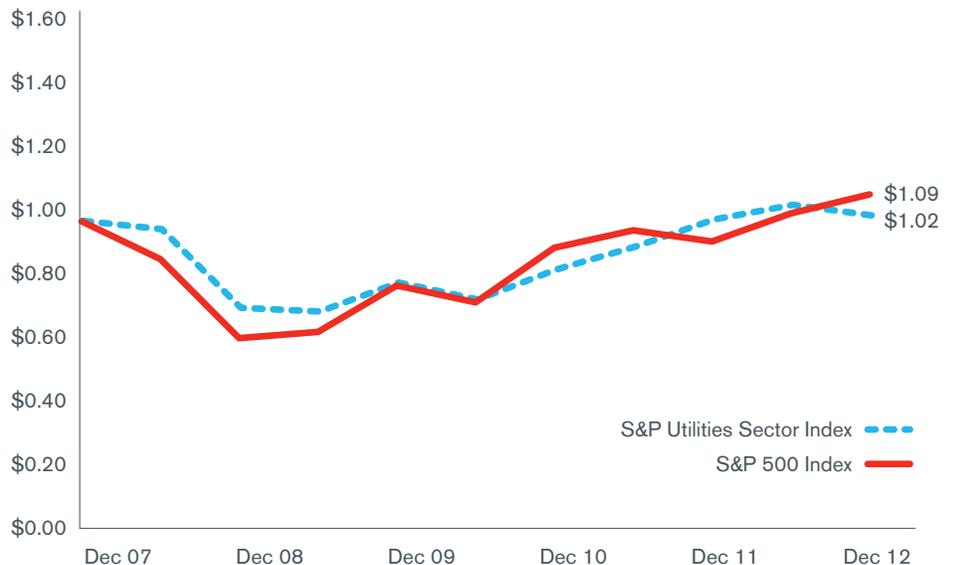
**7.3%**  
Percent of Companies  
with Goodwill that  
Recorded a Goodwill  
Impairment in 2012

**1.5**  
Market-to-Book Ratio  
(median)

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



### Index (Year End 2007 = \$1)

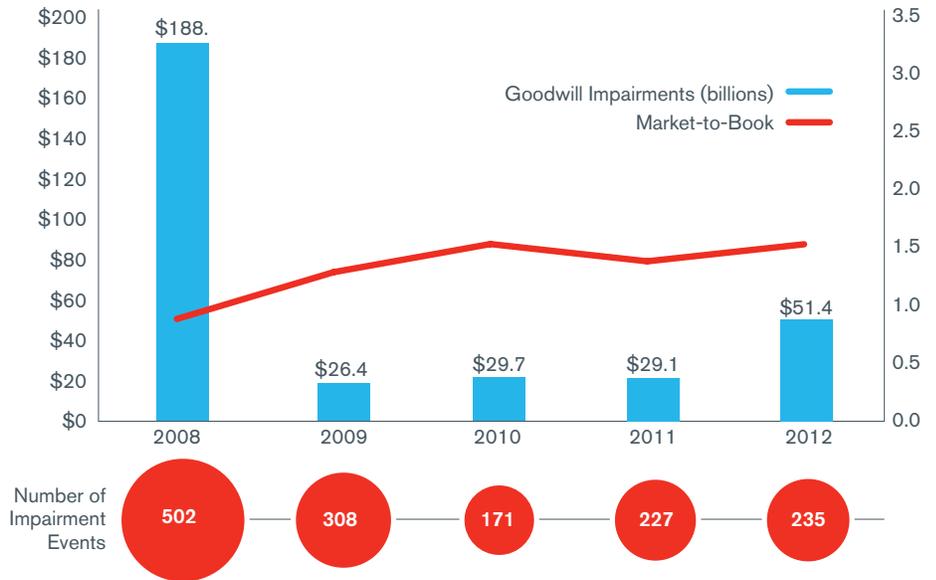
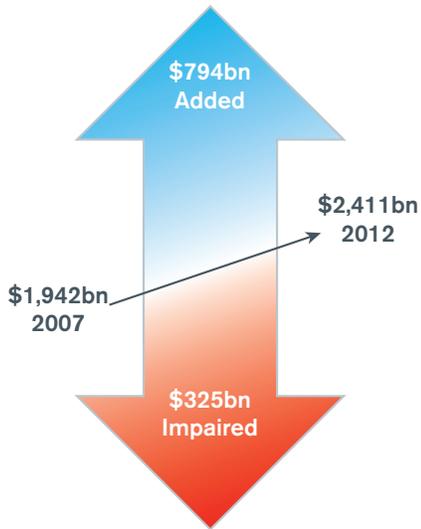


### Top 3 Industry Goodwill Impairments

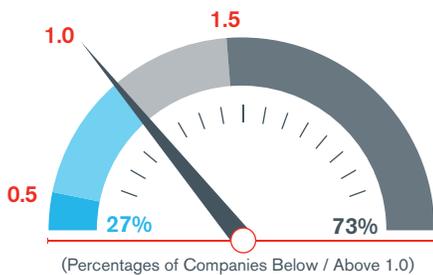
The AES Corp.	\$1,817 million
CenterPoint Energy, Inc.	\$252 million
ONEOK, Inc.	\$10 million

# 2012 Composite Industry Spotlight

## Goodwill Trends 2007–2012



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



**5,184**  
Companies

**6.0%**  
Goodwill to Total Assets (GW/TA)

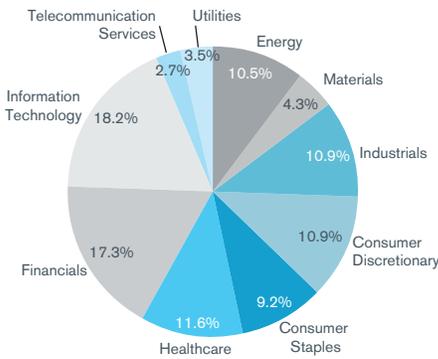
**2.3%**  
Percent of Goodwill Impaired (GWI/GW ratio)

**43.4%**  
Companies with Goodwill

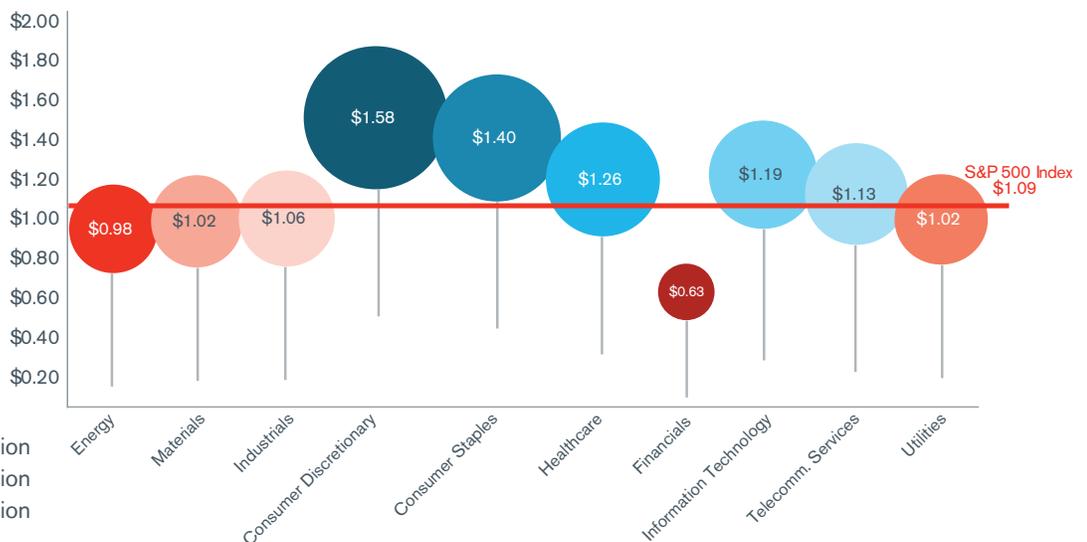
**10.5%**  
Percent of Companies with Goodwill that Recorded a Goodwill Impairment in 2012

**1.6**  
Market-to-Book Ratio (median)

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



## Cumulative 5-year Terminal Index Value by Industry from 2008 to 2012 Index (Year End 2007 = \$1)



## Top 3 Industry Goodwill Impairments

- Hewlett-Packard Co. .... \$13,700 million
- Microsoft Corp. .... \$6,193 million
- Boston Scientific Corp. .... \$4,350 million

# Goodwill Impairments by Sub-Industry

## Calendar Year 2012

### 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 Code	GICS 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
<b>Energy</b>							<b>\$ 2,420 (industry total)</b>	
10101010	Oil and Gas Drilling	9	33%	0.9%	–	–	–	1.1
10101020	Oil and Gas Equipment and Services	45	71%	14.9%	0.3%	12.5%	\$ 60	1.2
10102010	Integrated Oil and Gas	5	60%	1.0%	–	–	–	1.5
10102020	Oil and Gas Exploration and Production	158	12%	3.0%	1.1%	5.3%	\$ 235	1.7
10102030	Oil and Gas Refining and Marketing	26	42%	4.8%	0.6%	9.1%	\$ 22	1.4
10102040	Oil and Gas Storage and Transportation	49	69%	8.9%	0.0%	2.9%	\$ 6	2.1
10102050	Coal and Consumable Fuels	21	14%	1.4%	72.2%	100.0%	\$ 2,097	1.4
<b>Materials</b>							<b>\$ 3,610 (industry total)</b>	
15101010	Commodity Chemicals	25	40%	6.5%	0.4%	10.0%	\$ 2	1.7
15101020	Diversified Chemicals	10	90%	14.6%	1.0%	22.2%	\$ 224	2.1
15101030	Fertilizers and Agricultural Chemicals	14	36%	14.5%	–	–	–	3.2
15101040	Industrial Gases	3	100%	13.0%	–	–	–	–
15101050	Specialty Chemicals	53	60%	19.4%	1.2%	9.4%	\$ 222	2.3
15102010	Construction Materials	13	46%	25.5%	–	–	–	1.8
15103010	Metal and Glass Containers	10	80%	24.4%	–	–	–	3.9
15103020	Paper Packaging	10	90%	20.0%	10.5%	11.1%	\$ 1,091	1.7
15104010	Aluminum	3	67%	11.9%	–	–	–	–
15104020	Diversified Metals and Mining	39	15%	0.6%	78.7%	16.7%	\$ 1,064	2.2
15104030	Gold	21	5%	0.6%	–	–	–	2.8
15104040	Precious Metals and Minerals	13	–	–	–	–	–	1.5
15104050	Steel	33	52%	10.0%	11.7%	11.8%	\$ 1,007	1.2
15105010	Forest Products	4	–	–	–	–	–	–
15105020	Paper Products	11	55%	10.7%	–	–	–	1.7
<b>Industrials</b>							<b>\$ 6,471 (industry total)</b>	
20101010	Aerospace and Defense	67	61%	27.4%	2.1%	12.2%	\$ 2,287	1.5
20102010	Building Products	26	58%	15.3%	0.1%	20.0%	\$ 7	2.9
20103010	Construction and Engineering	32	81%	21.2%	6.7%	15.4%	\$ 850	1.5
20104010	Electrical Components and Equipment	63	46%	29.6%	3.1%	24.1%	\$ 605	1.5
20104020	Heavy Electrical Equipment	11	18%	15.1%	2.2%	50.0%	\$ 3	1.9
20105010	Industrial Conglomerates	7	86%	9.3%	–	–	–	2.1
20106010	Construction and Farm Machinery and Heavy Trucks	37	76%	7.0%	3.4%	17.9%	\$ 618	1.9
20106020	Industrial Machinery	89	65%	26.4%	2.2%	10.3%	\$ 745	1.8
20107010	Trading Companies and Distributors	34	68%	15.3%	0.9%	13.0%	\$ 34	1.7

# Goodwill Impairments by Sub-Industry Calendar Year 2012

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

GICS Code	GICS 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
<b>Industrials (continued)</b>								
20201010	Commercial Printing	13	85%	24.3%	22.0%	18.2%	\$ 862	1.4
20201050	Environmental and Facilities Services	51	41%	35.4%	0.1%	14.3%	\$ 31	2.4
20201060	Office Services and Supplies	23	65%	19.8%	0.5%	13.3%	\$ 23	1.5
20201070	Diversified Support Services	27	56%	30.2%	–	–	–	1.3
20201080	Security and Alarm Services	7	14%	9.0%	–	–	–	0.9
20202010	Human Resource and Employment Services	19	79%	24.2%	1.9%	20.0%	\$ 74	1.7
20202020	Research and Consulting Services	32	72%	42.4%	3.9%	21.7%	\$ 331	1.3
20301010	Air Freight and Logistics	19	58%	7.8%	0.0%	9.1%	\$ 1	2.2
20302010	Airlines	13	31%	11.5%	–	–	–	1.2
20303010	Marine	7	71%	12.9%	–	–	–	2.2
20304010	Railroads	6	50%	0.6%	–	–	–	2.3
20304020	Trucking	25	56%	3.9%	–	–	–	2.0
20305010	Airport Services	4	75%	22.4%	–	–	–	–
<b>Consumer Discretionary</b>							<b>\$ 4,536 (industry total)</b>	
25101010	Auto Parts and Equipment	40	48%	14.9%	–	–	–	1.6
25101020	Tires and Rubber	3	67%	3.5%	–	–	–	–
25102010	Automobile Manufacturers	9	44%	0.1%	–	–	–	2.3
25102020	Motorcycle Manufacturers	3	67%	0.3%	–	–	–	–
25201010	Consumer Electronics	9	33%	5.6%	–	–	–	1.3
25201020	Home Furnishings	15	33%	18.8%	0.0%	20.0%	\$ 0	0.9
25201030	Homebuilding	21	24%	0.3%	–	–	–	2.0
25201040	Household Appliances	5	80%	10.7%	–	–	–	1.4
25201050	Housewares and Specialties	15	60%	23.2%	1.8%	22.2%	\$ 81	2.0
25202010	Leisure Products	24	50%	11.2%	4.1%	16.7%	\$ 75	2.1
25203010	Apparel, Accessories and Luxury Goods	43	53%	14.3%	0.9%	8.7%	\$ 58	1.6
25203020	Footwear	11	64%	3.7%	–	–	–	2.0
25203030	Textiles	5	60%	1.4%	–	–	–	–
25301010	Casinos and Gaming	40	43%	8.0%	0.2%	5.9%	\$ 14	1.6
25301020	Hotels, Resorts and Cruise Lines	13	62%	14.9%	–	–	–	1.8
25301030	Leisure Facilities	14	50%	8.3%	–	–	–	1.7
25301040	Restaurants	50	72%	9.0%	0.5%	5.6%	\$ 31	3.1
25302010	Education Services	21	43%	12.0%	8.9%	33.3%	\$ 117	1.6
25302020	Specialized Consumer Services	20	65%	14.1%	4.0%	23.1%	\$ 150	2.0
25401010	Advertising	25	40%	32.4%	2.2%	20.0%	\$ 377	2.6
25401020	Broadcasting	22	86%	28.4%	0.9%	10.5%	\$ 111	1.4
25401025	Cable and Satellite	9	78%	13.5%	–	–	–	3.7
25401030	Movies and Entertainment	34	47%	40.6%	0.0%	6.3%	\$ 1	1.5
25401040	Publishing	24	71%	26.6%	1.8%	17.6%	\$ 149	1.5
25501010	Distributors	16	44%	17.2%	0.4%	14.3%	\$ 7	1.2
25502010	Catalog Retail	5	20%	1.8%	62.5%	100.0%	\$ 4	–
25502020	Internet Retail	20	45%	12.9%	5.1%	33.3%	\$ 324	2.8
25503010	Department Stores	8	38%	4.9%	6.2%	33.3%	\$ 295	1.7
25503020	General Merchandise Stores	8	38%	0.4%	–	–	–	2.4
25504010	Apparel Retail	41	41%	5.4%	–	–	–	2.0

# Goodwill Impairments by Sub-Industry Calendar Year 2012

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

GICS Code	GICS Sub-Industry Name	Number Co.'s	% of Co.'s with GW	GW/TA	GW/GW	% of Co's with GW that Recorded GWI	Goodwill Impairment (in \$ millions)	Market-to-Book Ratio
<b>Consumer Discretionary (continued)</b>								
25504020	Computer and Electronics Retail	11	45%	11.0%	31.5%	40.0%	\$ 1,834	1.1
25504030	Home Improvement Retail	3	67%	1.6%	8.6%	50.0%	\$ 97	–
25504040	Specialty Stores	32	44%	9.6%	14.6%	28.6%	\$ 807	1.2
25504050	Automotive Retail	19	74%	9.2%	0.1%	7.1%	\$ 4	2.1
25504060	Home Furnishing Retail	8	38%	2.1%	–	–	–	3.2
							<b>\$ 1,299 (industry total)</b>	
<b>Consumer Staples</b>								
30101010	Drug Retail	7	29%	26.6%	–	–	–	–
30101020	Food Distributors	7	86%	12.9%	7.4%	16.7%	\$ 167	2.0
30101030	Food Retail	13	69%	5.2%	10.6%	22.2%	\$ 464	1.9
30101040	Hypermarkets and Super Centers	3	67%	8.7%	–	–	–	–
30201010	Brewers	3	100%	14.8%	0.7%	33.3%	\$ 10	–
30201020	Distillers and Vintners	8	63%	27.5%	5.6%	40.0%	\$ 332	1.6
30201030	Soft Drinks	15	40%	17.0%	0.1%	16.7%	\$ 20	4.7
30202010	Agricultural Products	12	25%	2.8%	–	–	–	1.0
30202030	Packaged Foods and Meats	62	56%	28.4%	0.2%	11.4%	\$ 167	2.1
30203010	Tobacco	6	67%	21.8%	–	–	–	–
30301010	Household Products	14	71%	30.9%	0.0%	10.0%	\$ 22	2.4
30302010	Personal Products	51	24%	8.1%	6.3%	16.7%	\$ 118	2.4
							<b>\$ 6,006 (industry total)</b>	
<b>Healthcare</b>								
35101010	Healthcare Equipment	137	45%	23.5%	8.6%	8.1%	\$ 4,794	2.6
35101020	Healthcare Supplies	42	67%	33.9%	1.6%	7.1%	\$ 115	2.6
35102010	Healthcare Distributors	10	90%	17.9%	–	–	–	2.8
35102015	Healthcare Services	47	51%	51.1%	0.8%	20.8%	\$ 230	2.0
35102020	Healthcare Facilities	31	61%	23.3%	1.4%	26.3%	\$ 210	1.7
35102030	Managed Healthcare	12	83%	24.5%	0.1%	20.0%	\$ 38	1.4
35103010	Health Care Technology	26	46%	25.2%	0.1%	8.3%	\$ 1	4.5
35201010	Biotechnology	203	21%	14.0%	–	–	–	4.5
35202010	Pharmaceuticals	85	28%	18.8%	0.6%	12.5%	\$ 572	3.1
35203010	Life Sciences Tools and Services	46	50%	34.5%	0.2%	21.7%	\$ 46	2.4
							<b>\$ 2,818 (industry total)</b>	
<b>Financials</b>								
40101010	Diversified Banks	6	83%	1.8%	0.0%	20.0%	\$ 2	–
40101015	Regional Banks	403	54%	2.4%	0.0%	2.3%	\$ 14	1.0
40102010	Thrifts and Mortgage Finance	156	35%	0.1%	0.0%	1.8%	\$ 0	0.9
40201020	Other Diversified Financial Services	6	50%	2.2%	–	–	–	–
40201030	Multi-Sector Holdings	8	25%	2.6%	–	–	–	1.6
40201040	Specialized Finance	23	39%	13.3%	0.1%	11.1%	\$ 12	1.2
40202010	Consumer Finance	25	60%	2.6%	0.2%	26.7%	\$ 32	1.6
40203010	Asset Management and Custody Banks	581	4%	3.4%	0.0%	8.0%	\$ 1	1.2
40203020	Investment Banking and Brokerage	33	58%	0.9%	2.3%	15.8%	\$ 422	0.9
40203030	Diversified Capital Markets	3	67%	0.9%	–	–	–	–
40301010	Insurance Brokers	7	71%	39.2%	–	–	–	2.4
40301020	Life and Health Insurance	22	55%	0.6%	11.4%	8.3%	\$ 1,868	0.6
40301030	Multi-line Insurance	13	77%	0.4%	8.2%	20.0%	\$ 431	0.6
40301040	Property and Casualty Insurance	47	53%	6.5%	0.0%	4.0%	\$ 23	1.0

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<b>Financials (continued)</b>								
40301050	Reinsurance	2	100%	0.1%	–	–	–	–
40402010	Diversified REITs	18	22%	0.6%	–	–	–	2.0
40402020	Industrial REITs	5	20%	0.0%	–	–	–	1.4
40402030	Mortgage REITs	24	8%	0.0%	–	–	–	0.9
40402040	Office REITs	17	12%	0.1%	–	–	–	1.7
40402050	Residential REITs	18	22%	0.1%	–	–	–	2.4
40402060	Retail REITs	29	17%	0.0%	–	–	–	2.1
40402070	Specialized REITs	35	34%	2.5%	0.2%	8.3%	\$ 8	2.0
40403010	Diversified Real Estate Activities	7	–	–	–	–	–	–
40403020	Real Estate Operating Companies	26	8%	0.1%	–	–	–	1.7
40403030	Real Estate Development	10	10%	0.1%	–	–	–	0.6
40403040	Real Estate Services	8	63%	27.7%	0.1%	40.0%	\$ 4	3.8
<b>Information Technology</b>							<b>\$22,044 (industry total)</b>	
45101010	Internet Software and Services	116	57%	18.0%	0.9%	10.6%	\$ 244	2.1
45102010	IT Consulting and Other Services	54	52%	25.0%	0.6%	10.7%	\$ 204	1.6
45102020	Data Processing and Outsourced Services	41	83%	23.4%	0.4%	11.8%	\$ 148	2.8
45103010	Application Software	106	58%	37.0%	–	–	–	3.6
45103020	Systems Software	39	62%	23.0%	10.5%	12.5%	\$ 6,281	3.1
45103030	Home Entertainment Software	8	63%	31.0%	0.3%	60.0%	\$ 7	2.1
45201020	Communications Equipment	96	48%	19.2%	0.1%	6.5%	\$ 37	1.3
45202010	Computer Hardware	16	44%	11.9%	26.0%	14.3%	\$ 13,700	1.9
45202020	Computer Storage and Peripherals	42	45%	22.0%	0.8%	26.3%	\$ 115	1.5
45203010	Electronic Equipment and Instruments	86	40%	16.8%	8.8%	17.6%	\$ 204	1.6
45203015	Electronic Components	20	65%	8.2%	0.0%	7.7%	\$ 0	0.9
45203020	Electronic Manufacturing Services	39	46%	8.9%	9.6%	22.2%	\$ 202	1.3
45203030	Technology Distributors	25	56%	8.2%	0.8%	7.1%	\$ 26	1.0
45204010	Office Electronics	2	100%	29.6%	0.1%	50.0%	\$ 9	–
45301010	Semiconductor Equipment	42	50%	13.8%	7.9%	9.5%	\$ 422	1.2
45301020	Semiconductors	84	58%	12.2%	2.0%	18.4%	\$ 445	2.0
<b>Telecommunications Services</b>							<b>\$ 61 (industry total)</b>	
50101010	Alternative Carriers	19	42%	16.3%	1.5%	12.5%	\$ 50	3.2
50101020	Integrated Telecommunication Services	28	68%	21.5%	0.0%	5.3%	\$ 1	2.1
50102010	Wireless Telecommunication Services	16	50%	4.7%	0.3%	12.5%	\$ 11	1.4
<b>Utilities</b>							<b>\$ 2,115 (industry total)</b>	
55101010	Electric Utilities	30	57%	5.0%	–	–	–	1.4
55102010	Gas Utilities	22	59%	10.4%	0.2%	7.7%	\$ 10	1.7
55103010	Multi-Utilities	21	81%	3.9%	1.8%	11.8%	\$ 288	1.5
55104010	Water Utilities	12	42%	0.6%	–	–	–	1.9
55105010	Independent Power Producers and Energy Traders	14	21%	5.0%	32.3%	33.3%	\$ 1,817	1.0

# Canadian Goodwill Impairment Study

In February 2013, Duff & Phelps released its inaugural “2012 Goodwill Impairment Study: Canadian Edition”, a sister publication to the U.S. edition of the study.

The 2012 Canadian Study included an analysis of publicly traded Canadian company disclosures regarding the transition from the prior Canadian (a.k.a., Pre-changeover) GAAP to IFRS and its effect on goodwill impairments. Mandatory IFRS adoption was required for fiscal years commencing on or after January 1, 2011 for most publicly accountable enterprises, or PAEs.

### IFRS Adoption

IFRS 1 requires the first-time adopter to present full comparative financial information for the year preceding the adoption and an opening balance sheet at the date of transition to IFRS. This “transition date” was January 1, 2010 for Canadian calendar-year companies.

In general, IFRS 1 calls for full retrospective application of IFRS standards. In theory, this would mean that all past business combinations occurring prior to the transition date would have to be restated under IFRS.

However, IFRS 1 offers an optional exemption to this requirement. If a company opts out, then goodwill balances must be tested for impairment at the transition date. In addition, in most cases the company must recognize any resulting transition-related impairment loss in retained earnings.

### Highlights of the 2012 Canadian Study

2010 provided a great opportunity to measure the impact of IFRS adoption on goodwill. For comparison purposes, goodwill impairment was presented under both sets of accounting rules for 2010: (i) as originally reported under Pre-Changeover GAAP; and (ii) as restated under IFRS. As a result of IFRS adoption, 2010 GWI increased from

C\$1.3 billion as originally reported under Pre-changeover GAAP to C\$2.9 billion as restated under IFRS (see graph below).

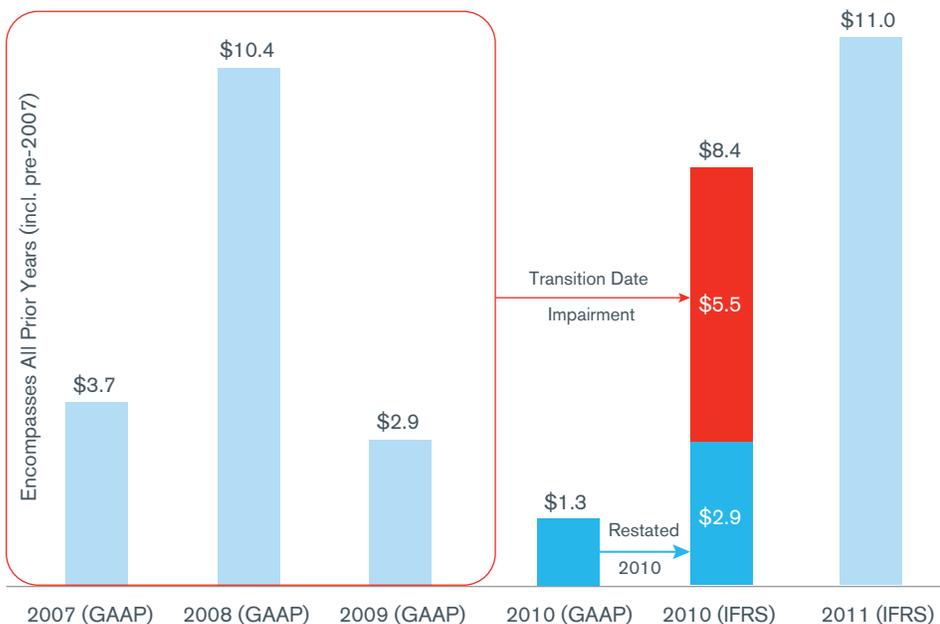
In addition, under the optional exemption related to IFRS adoption, an incremental C\$5.5 billion of cumulative “transition date” goodwill impairment was recognized in the opening balance sheet. This amount approximates the cumulative impairment that would have been recognized under IFRS, had companies restated their prior business combinations.

Other 2012 Canadian Study highlights included:

- The aggregate amount of goodwill impaired in calendar year 2011 by Canadian publicly traded companies was C\$ 11.0 billion, 81% of which (or C\$8.9 billion) being recognized by three major companies: Thomson Reuters, Yellow Media, and Kinross Gold Corporation.
- Over 90% of total impairments in 2011 were recognized in the Consumer Discretionary, Materials, and Financials industries.

At the date of this publication, the “2013 Goodwill Impairment study: Canadian Edition” is in the final stages of completion and will be available soon at [www.duffandphelps.com](http://www.duffandphelps.com)

Goodwill Impairments, Canadian Companies (in CAD \$billions )



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