

January 13, 2020

Mr. Shayne Kuhaneck
Acting Technical Director
Financial Accounting Standards Board
401 Merritt 7
P.O. Box 5116
Norwalk, CT 06856-5116

**Re: Invitation to Comment (ITC)
Identifiable Intangible Assets and Subsequent Accounting for Goodwill**

Dear Mr. Kuhaneck:

CFA Institute appreciates the opportunity to comment on the Financial Accounting Standards Board's (FASB's) Invitation to Comment on [*Identifiable Intangible Assets and Subsequent Accounting for Goodwill*](#) (the Goodwill Invitation to Comment, Goodwill ITC, Invitation to Comment or ITC). CFA Institute¹ is providing comments consistent with our objective of promoting fair and transparent global capital markets and advocating for investor protections. An integral part of our efforts toward meeting those goals is ensuring that corporate financial reporting and disclosures – and the related audits – provided to investors and other end users are of high quality. Our advocacy position is informed by our global membership who invest both locally and globally and in consultation with the Corporate Disclosure Policy Council (“CDPC”).²

¹ CFA Institute is a global, not-for-profit professional association of nearly 171,400 investment analysts, advisers, portfolio managers, and other investment professionals in 165 countries, of whom more than 164,000 hold the Chartered Financial Analyst® (CFA®) designation. The CFA Institute membership also includes 154-member societies in 77 countries and territories.

² The objective of the CDPC is to foster the integrity of financial markets through its efforts to address issues affecting the quality of financial reporting and disclosure worldwide. The CDPC is comprised of investment professionals with extensive expertise and experience in the global capital markets, some of whom are also CFA Institute member volunteers. In this capacity, the CDPC provides the practitioners' perspective in the promotion of high-quality financial reporting and disclosures that meet the needs of investors.

EXECUTIVE SUMMARY

Contextualizing the Size of the Goodwill Debate – The Goodwill Invitation to Comment has as its premise³ that the cost of performing the goodwill impairment test exceeds the benefit and that a change is needed. The FASB has not, however, completed an empirical analysis of the cost of performing impairment tests – something that should be relatively straightforward as the costs are discrete and measurable. Further, the FASB has not considered the magnitude of the goodwill balances they would likely put on a schedule to amortize over a period of ten years – similar to the method required for private companies to which the discussion paper is heavily anchored.

A decision by the FASB to adopt private company accounting for goodwill would result in the write-off (amortization) over ten years of \$5.6 trillion of assets on the books of U.S. public companies. See the extract from Table 1 below.

GOODWILL													
ALL PUBLIC COMPANIES & S&P 500 COMPANIES													
2018													
(\$'s in Trillions)													
All Public Companies						S&P 500							
	#	Goodwill	Equity	Assets	G/W		#	Goodwill	Equity	Assets	G/W		
	Companies				Equity	Assets	Companies				Equity	Assets	
2018	6,449	\$ 5.558	\$ 17.580	\$ 95.446	31.62%	5.82%	2018	499	\$ 3.251	\$ 7.968	\$ 35.037	40.80%	9.28%
All Public Companies with Goodwill						S&P 500 Companies with Goodwill							
	#	Goodwill	Equity	Assets	G/W		#	Goodwill	Equity	Assets	G/W		
	Companies				Equity	Assets	Companies				Equity	Assets	
2018	3,196	\$ 5.558	\$ 13.734	\$ 72.620	40.47%	7.65%	2018	444	\$ 3.251	\$ 7.217	\$ 33.037	45.05%	9.84%

Source: Calcbench

Goodwill amounts to 6% of all public company assets and 8% of the assets of public companies with goodwill. Goodwill represents 32% and 40%, respectively, of the equity of such public companies. More staggering is the effect this would have on S&P 500 companies. With \$3.3 trillion in goodwill, the S&P 500 represent nearly 60% of the goodwill of all U.S. public companies, though S&P 500 companies represent only 8% of U.S. public companies and 37% of the assets of U.S. public companies. Goodwill represents 10% of the assets and 45% of the equity of S&P 500 companies with goodwill.

Adopting the private company approach to goodwill amortization would schedule the write-off (amortization) of a substantial portion of the assets and equity of U.S. public companies and reduce profits of the S&P 500 by \$330 billion (\$560 billion for all U.S. public companies) for ten years. Because goodwill impairments are not tagged separately from all other asset type impairments, it is not possible to ascertain precisely the resulting incremental amortization impact. That said, in 2018, asset impairment charges for all public companies were \$158 billion – up from \$108 billion

³ On Page 8 of the Goodwill Invitation to Comment, the FASB articulates the following assumption in the preparation of the Invitation to Comment:

This ITC seeks feedback on whether a change is warranted. The remainder of this ITC assumes that the cost of the present accounting model exceeds the benefit and that a change is warranted.

in 2017 and \$104 billion in 2016 – due significantly to the \$23 billion impairment at GE. At a current impairment amount of approximately \$100-\$150 billion, it would take substantially more than 10 years to write-off existing goodwill. It would be an annual increase of \$400-\$450 billion in amortization and a similar decrease in profits. The growth in goodwill from 2013 to 2018 highlights that a change to amortization would result in a substantial reduction in assets and equity as impairments are not as high as will be amortization.

We do not believe the Invitation to Comment properly contextualizes the magnitude and implications of a switch to amortization that the Invitation to Comment appears to promote as more efficient than impairment testing.

The Detrimental Impact of Private Company Standards – We are very concerned that the Financial Accounting Foundation’s (FAF’s) decision to establish the Private Company Council (PCC) in 2012 – and allow it to set its own agenda, independent of the FASB – has resulted in the back-door standard setting we warned of at that time. The liberal reference to the goodwill accounting for private companies in the Invitation to Comment makes it clear the FASB is anchoring the ITC and its underlying assumption that goodwill impairment testing is not cost beneficial to the private company standard-setting process. Investors are now in a position of defending why lower quality private company standards are appropriate for the public market.

The Push to Revisit Goodwill Accounting – As we set forth in more detail below, the political pressure applied to the International Accounting Standards Board (IASB) in the wake of high profile failures (e.g. Carillion) in the UK that inaccurately point to goodwill as a basis for such failures followed by significant goodwill impairments in the U.S. (e.g. GE and Kraft Heinz) have been used as political fuel to elevate this issue to the top of the FASB’s agenda – even prior to the IASB seeking consultation on the issue. We think the fallacy of the argument in the UK and the politically appealing nature of applying the private company approach in the U.S. has resulted in the FASB’s undertaking this issue without consideration of the analytical and economic consequence of this decision as we outline elsewhere herein. Further, the FASB has not justified the change in the conceptual definition of goodwill (i.e. the presumption that goodwill is a wasting asset if amortization is adopted) nor the flaws in the conceptual logic supporting its previous decision-making/standard-setting that established impairment testing. As investors allocate capital globally, different accounting for goodwill under U.S. GAAP and International Financial Reporting Standards (IFRS) would be an unsatisfactory result.

A Backward Move in Relevance of Financial Reporting – We see this Goodwill ITC as a troubling signal. In a world where intangibles are becoming even more important to the economic value of U.S. public companies and where historical transactions can increasingly be accounted for and audited via technology, the FASB appears to support a reversion to a time where backward looking rote processes such as amortization are the future. For investors, this will reduce the relevance and value of financial statements and the accounting and auditing professions that support their production. It is the ability of accounting and auditing professionals to evaluate and audit estimates and judgements, such as impairment, that will drive the value of these professions in the future where more historical backward-looking information will be audited by technology. An assumption that such evaluations are too complicated, time consuming

or costly for such professionals has a significant bearing on their relevance. We believe the FASB needs to consider the broader strategic signal of returning to the accounting of 20 years ago.

Investors Are Making Impairment Assessments, So Too Should Management – The FASB must also challenge the narrative that the accounting and auditing profession find the performance of impairment testing too costly or too challenging when there is empirical evidence that shows that investors – with substantially less information than company management – make impairment decisions in a more timely manner.

Timeliness of Impairment Recognition is the Real Issue – In our view, the real issue is the timeliness of impairment recognition. It is not the cost of impairment testing or the conceptual basis for why impairment is better for financial statement reporting purposes that is the issue to be addressed by the FASB. When impairment is taken it provides important signalling to investors regarding whether management’s acquisitive activities were successful. Impairment testing done properly provides forward-looking information to both the company and investors and gives recognition to both the finite and indefinite elements of goodwill.

The FASB’s design and approach to impairment testing is also an issue. Because disclosures on impairment testing are generally sparse, qualitative and boilerplate, the reporting unit concept and its implications are not clearly understood by investors. The commingling of acquired cash flows with organically generated cash flows is not something readily evident to investors. Investors clearly understand that the separate nature of the acquired business – especially one that is successfully integrated – makes the ability to perform the goodwill impairment analysis more challenging. That said, we believe that improved disclosures of performance of the acquisition relative to the criteria and statements made at acquisition are something that not only investors want but that the investee board of directors should be doing to evaluate management. Accordingly, the notion that impairment testing is challenging also raises concerns for investors regarding whether boards are performing the necessary oversight post acquisition. Anecdotally, we have heard that impairment testing has added rigor and discipline to the acquisition process within companies – a benefit that is not articulated in the Goodwill ITC. Amortization, unlike impairment, cannot provide this information or discipline.

Amortization is Not Decision-useful – As we explain below, amortization will lead to the proliferation of non-GAAP measures. Our quantitative analysis shows the significance that amortization will have on the earnings of U.S. public companies. Accordingly, there is little doubt that every company will add back the amortization of goodwill. This is, in our view, an indication that the amortization of goodwill will not be an improvement in financial reporting in the U.S.

Some argue that impairment charges are also added back to net income to arrive at a non-GAAP measure of profit, and that because of this, they too are not value relevant or decision-useful. There is, however, an important distinction. The add back of amortization will be done each period – highlighting that it is not an unusual item, just an un-useful item. Impairment, on the other hand, is done periodically when impairment occurs. Further, the add-back of impairment, similar to the add back of amortization, is done by investors to provide a proxy of cash flow from

earnings for purposes of the modelling of cash flows. That does not mean they have equivalent information content. They both are labelled non-cash charges, but amortization is a scheduled non-cash charge that has no information content because of its rote/scheduled nature whereas impairment charges occur periodically and represent an indication of the change in value of the asset to which the impairment test was applied.

As we highlight below, amortization also provides no ability to distinguish between good and bad management as it relates to acquisitions as the income statement performance will be identical. Further, amortization actually distorts performance by improving trends in profitability ratios such as ROE and ROA by the simple operation of time as equity and assets will decrease with amortization.

Disclosure Improvement is a Necessary First Step – Investors are united in their interest in assessing the performance of the acquisitions that generate goodwill. Accordingly, we believe improving disclosures regarding the initial recognition and valuation of goodwill and intangibles and the related impairment testing would be the most useful first step before any changes are made to the recognition or impairment of intangibles, including goodwill. We believe the FASB should be working with the IASB to craft improved disclosures not only because we believe this is the appropriate way forward, but because maintaining global convergence is essential.

We assess the information value of amortization to be zero as it is an accounting rather than economic convention, and as such, is not relevant to valuation. If the FASB decides that a zero-information amortization approach should be adopted, we would recommend this be combined with the addition of a range of objective, quantified and company-specific disclosures that permits users to reach their own conclusions about acquisitions. Immediate write-off of goodwill is also an option we support over the amortization approach given amortization will constantly need to be adjusted from any analysis and will distort trends.

Simply, investors would like similar information to that being provided to investee company boards to make their own assessments. Managements should be providing their board of directors with assessments of the performance (value creation or destruction) of the acquisitions undertaken (i.e. especially since they now appear to be one of the most prevalent critical audit matters). As such, there should not be substantial additional cost with providing this information.

FASB Must Step Back & Evaluate Economic Impact Relative to Cost of Impairment Testing – To our mind, improved disclosures – and a survey on the cost of impairment testing – would provide investors (those who pay for impairment testing) and standard setters with more decision-useful information in evaluating the way forward on this issue. The magnitude of goodwill balances warrants careful consideration of the impact of a switch to amortization.

OVERARCHING CONSIDERATIONS

The Current Environment & the Call to Debate Goodwill Accounting

In our comment letters⁴ to UK regulators regarding audit market reform in the United Kingdom, we have provided commentary regarding the media attention given to the accounting for goodwill and the inappropriate conflation of failures such as Carillion to the delayed impairment of goodwill. Highlighted in the excerpt below are our views.

CURRENT ENVIRONMENT: PERCEPTION VS. REALITY

Recent business failures in the UK and the related media attention have, again, raised the question of audit quality. There has been much in the press that has inflamed the reaction of many stakeholders (e.g. investors, politicians, pension trustees, and the broader public) We certainly don't disagree that such business failures are problematic and create significant consequences for not only investors but other stakeholders to an organization. While extensively reported upon by the UK media, there is much reaction, but not significant analysis of the causes of such business failures and the degree to which audit failures, aggressive accounting, fraud or market conditions that resulted in liquidity issues contributed to the lack of timely recognition of such business failures.

Audits do not necessarily prevent business failures as business failures stem from a lack of cash resulting from liquidity issues that can manifest quickly. Additionally, audit failures are not necessarily indicative of underlying business issues. There is much in the press that seems to inappropriately conflate accounting, auditing and business failures. *For example, the accounting for goodwill has drawn the attention of media outlets such as the Financial Times and Economist. The write-off of goodwill does not create business failures, business failures create the write-off of goodwill. While there certainly can be more timely recognition of such impairments, amortization of goodwill – as some of the articles suggest – will not resolve these business failures. Amortization of goodwill will only artificially improve ratios such as return on assets over the amortization period. Sophisticated investors (i.e. price makers) generally write-off goodwill long before management, understanding the moral hazard of management's assessment. The cash related to the generation of goodwill is long gone. We disagree with the notion, that some managements like to communicate, when experiencing a write-off, that goodwill is a non-cash write-off. Rather, it is recognition, and communication, that the cash previously exchanged was not well spent. We highlight the issue of goodwill not to debate the merits of the accounting for goodwill, but to highlight the media's flawed analysis of many of the accounting, auditing and business issues.* In a similar vein, some have used this moment as an opportunity to reignite the debate regarding fair value accounting. This is a red herring. Financial statements are replete with estimates – even the accrual of payables is an estimate. To suggest the financial statements be stripped of estimates such as fair value will have the effect of making the financial statements substantially less meaningful to investors. Financial statements that are simply a compilation of historical transactions offer little value to investors in considering the future prospects of the entity. They also – particularly in an age of technological disruption where there is discussion of the ability to audit 100% of historical transactions – would leave little value for the auditors to provide to investors in the information value chain. That said, auditors need to be able to effectively challenge management's estimates and to communicate in the audit report the uncertainty in such estimates and the procedures they performed to gain reasonable assurance over them. This is what investors want. It is where the value of an audit is derived in the eyes of investors. The future of the audit profession is inextricably linked with the profession's ability to provide such assurance as historical transactions will – in the near future – be easily auditable by machines.

Further, the Audit Market Study rightly references an expectations gap by the public regarding the nature of the auditors' responsibilities (e.g. responsibilities regarding fraud). This is something auditors and regulators need to better communicate to address the media distortion.

While we recognize there is much to do to improve audit quality, regulators must be cautious to clearly define the issues and remedies. The remedies must address the root causes, and the responses must not be disproportionate given the sometimes-flawed analysis of the issues by the media and politicians. Said differently, blunt instrument regulations may not be the remedy to nuanced and complicated issues that gave rise to the business failures that have put the auditing profession squarely in the sights of politicians, regulators and audit. The current perception should not drive the reality of the reforms truly necessary to improve audit quality.

⁴ Comment letters to the UK Competition and Markets Authority and the Brydon Review, respectively, are as follows:
<https://www.cfainstitute.org/-/media/documents/comment-letter/2015-2019/20190205.ashx>
<https://www.cfainstitute.org/-/media/documents/comment-letter/2015-2019/20190816.ashx>

Media attention to the issue of goodwill in the UK increased political pressure on the International Accounting Standards Board to reconsider, beginning in 2018, the issue of goodwill amortization, rather than impairment, under IFRS. Simultaneously, a significant write-off of goodwill by GE, [*GE's \\$23 billion Write-down Stems from a Bad Bet on Fossil Fuels*](#) and [*GE's \\$23bn Write-down is a Case of Goodwill Gone Bad*](#) in October 2018 followed by the Kraft Heinz goodwill write down, [*Kraft Heinz Plunges after \\$15 Billion Writedown, Dividend Cut and SEC Probe*](#) and [*Kraft Heinz Goodwill Charge Tops Consumer Staples Record*](#), appears to have created an opportunity for certain stakeholders to request the FASB address the accounting for goodwill⁵ for U.S. Generally Accepted Accounting Standards (US GAAP). ***Delayed write-downs by poor management at several high-profile companies, or in connection with high-profile corporate failures, should not be seen as wide spread evidence of the need to replace impairment with amortization of goodwill.*** Amortization of goodwill, and certainly amortization without impairment, would not have cured what ails these acquisitions – especially given they failed rather quickly. Rather, one could argue the impairment test facilitated or forced recognition that the companies overpaid for these acquisitions. For that reason, we do not believe these examples should be used as the basis by some stakeholders to further reduce the economic relevance and meaningfulness of financial statements.

We believe the IASB and FASB must be resolute in the need for financial statements to provide economically relevant information. Delayed recognition of impairment is, in our view, the problem that needs to be addressed. We do not believe that amortization is the best response to this problem. And, as we note later in the discussion of costs, we believe the FASB needs to validate empirically the stated assumption underlying the ITC that the cost of impairment testing exceeds the benefit. An empirical analysis of the costs of performing impairment tests is needed rather than simply accepting this assumption.

FASB (US GAAP) and IASB (IFRS): Global Consistency in Timing and Outcomes is Essential

While the political pressure to address accounting for goodwill was earlier and more intense for IFRS, the FASB has placed the topic on its agenda and issued this Invitation to Comment before the IASB has published a document for public commentary. The IASB's document is expected in early 2020.

Unfortunately, the deliberation in the U.S. appears heavily driven by taking the opportunity presented by these high-profile write downs to reduce the cost and time associated with completing impairment testing rather than increasing the efficacy and timeliness of impairment testing and the value relevance of financial statements. Both the IASB and FASB (the Boards) need to keep investors and the relevance of financial statements as their foremost consideration. The Boards need to consider the opportunity cost to investors of the loss of value relevant information that comes with the decision to prioritize amortization of goodwill over the decision to improve the execution of goodwill impairment testing.

Because investors invest globally, US GAAP and IFRS should remain converged on the issues addressed in the Invitation to Comment. Further, the timetable for deliberation should be consistent. Investors do not have the time or resources to monitor two projects with different

⁵ In the United States the existence of amortization of goodwill for private companies was a force multiplier in this debate.

time tables and potentially different outcomes. Investors needs are globally consistent. Further, the global magnitude of the issue under consideration must be understood and contextualized before any decision is made. We attempt to size the magnitude of the issue in the U.S. as part of this comment letter in the pages that follow. The issue is equally significant globally.

***Private vs. Public Company Accounting:
Our Concerns Regarding Back-Door Agenda Setting Appear Validated***

Private Company Accounting Standards: Lower Quality Reporting

CFA Institute has long supported and advocated for one set of high-quality financial reporting standards for both public and private companies as we believe there should be no distinction in accounting based on the size or public float of companies. High-quality financial reporting should serve the needs of all investors who provide capital to a company and bear risk as a result – including the various classes of creditors as well as equity owners whether public or private. In a [2015 comment letter to the FASB Trustees at the Financial Accounting Foundation, we highlighted our investor survey results and concerns with the creation of separate private company accounting standards](#). We noted the following:

The survey findings substantiate our previously articulated investor concerns regarding the creation of differential standards for private companies. Investors aren't supportive of the creation of private company standards *because it increases complexity, decreases comparability, results in the loss of information which cannot be remediated by access to management, has the potential to reduce the economic usefulness of information based upon the legal structure of the organization (private vs. public) irrespective of the complexity of the transaction or the size of the organization, and is likely to increase the cost of capital because of the perceived lower quality of private company standards and the lack of disclosure of the private company options elected*. We would observe that each of these issues are inconsistent with the objectives of high quality accounting standards.

Private Company Accounting Standards: Back-Door Mechanism for Public Companies

In the same letter, we highlighted, as excerpted below, the impact private company accounting had already had on impairment testing and that it could be used to further reduce the quality of reporting by public companies.

Impact on Public Company GAAP – *We highlighted our concern that private company alternatives would be used as a back-door agenda setting mechanism to alter the reporting requirements for public companies*. We note this has occurred in the context of impairment of intangible assets.

Private Market Changes Necessitate Reconsideration of Private Company Council

One of the principal reasons the FASB undertook an initiative to create separate accounting for private companies was the belief that private investors have greater access to management and can obtain necessary information from management more readily. We did not support this reasoning at the time – as well as other elements of the decision-making that led to creation of the Private Company Council. We believe the recent failed initial public offering of the We Company highlights the fallacy that private company investors have more information because they have greater access to management and need less information in financial statements or less timely information (i.e. due to, for example, delayed implementation of accounting standards). In our view, it was the need to adopt the new leasing standard between the last funding round and the public offering of the We Company that highlighted the extensive mismatch in the duration of lessee and lessor arrangements at We Company. The improved information exchange was precipitated

by the public market accounting for leases (i.e. that required adoption earlier than for private companies) that highlighted the extensive long-term liabilities and the lack of long-term receivables.

We would also note, the private market has substantially changed since the advent of the Private Company Council. The FAF should consider again the assumptions regarding the decision to establish the PCC and allow separate private company standards. Changes in the structure and size of private markets call into question – as we highlight with the We Company example – the assumptions that were the basis for lower quality accounting standards for private market companies.

Private Company Agenda Setting:

FASB in Position of Defending Why Private Standards Are Not Appropriate for Public Companies
The extensive anchoring of this Invitation to Comment to private company accounting is especially troubling because of the ability of the PCC to set its own agenda and make decisions which then become precedents for the FASB. Because of this, investors are faced with rebutting the presumption that private company standards are a valid reference point for the needs of public market investors. We believe the FAF should not only consider again the assumptions regarding the decision to establish the PCC and allow separate private company standards but the implications of allowing the PCC to establish its own agenda setting. We believe this puts the FASB in a posture of having to defend why changes to private company accounting are not appropriate for public companies. It is our view that the FAF's decision to allow the PCC to establish its own agenda is having negative consequences for investors.

Private Company Accounting Standards: Negative Implications for Public Investors

For all the reasons stated above, the ITC seems to validate our concern that lower quality private company standards would be a back-door to the weakening of public company accounting standards. The extensive anchoring of this Invitation to Comment to the private company accounting for goodwill shows that investors are now in a position of defending why such standards are not appropriate for public companies.

*The Impact of Moving to a Private Company Approach:
A \$5.6 Trillion Write-off Over Ten Years*

As we further describe in the section that follows, the Invitation to Comment assumes the cost/benefit analysis supports a change to an amortization model and would therefore be cost/beneficial to the U.S. economy. Our view is that the ITC does not appropriately consider the magnitude of such a decision on U.S. public companies. We provide that context on the pages that follow.

It is important, in our view, to contextualize the impact of a change in the accounting for goodwill from an impairment model for public companies to a ten-year amortization model as allowed for private companies – as extensively referenced in the Invitation to Comment.

CFA Institute, using data from Calcbench, gathered the amount of goodwill recognized in the years 2013 to 2018 by all U.S. public companies and companies comprising the S&P 500. For this same time period, and same population of companies, we also gathered the number of entities as well as total equity and total asset balances. The aforementioned data was gathered or computed for all companies in the respective populations. We then extracted and did the same analysis for only those public companies and S&P 500 companies with goodwill. The data and computations are provided in **Table 1** which follows.

Table 1

**GOODWILL
ALL PUBLIC COMPANIES & S&P 500 COMPANIES
2013 to 2018
(\$'s in Trillions)**

All Public Companies										
2018	2017	2016	2015	2014	2013	# Companies	Goodwill	Equity	Assets	G/W Assets
6,449	\$ 5,558	\$ 5,558	\$ 5,558	\$ 5,558	\$ 5,558	6,449	\$ 5,558	\$ 17,580	\$ 95,446	5.82%
6,947	\$ 5,416	\$ 5,416	\$ 5,416	\$ 5,416	\$ 5,416	6,947	\$ 5,416	\$ 17,678	\$ 96,413	5.62%
7,300	\$ 4,916	\$ 4,916	\$ 4,916	\$ 4,916	\$ 4,916	7,300	\$ 4,916	\$ 16,294	\$ 87,091	30.17%
7,517	\$ 4,049	\$ 4,049	\$ 4,049	\$ 4,049	\$ 4,049	7,517	\$ 4,049	\$ 14,899	\$ 71,976	27.18%
7,608	\$ 3,527	\$ 3,527	\$ 3,527	\$ 3,527	\$ 3,527	7,608	\$ 3,527	\$ 11,638	\$ 59,403	30.31%
7,812	\$ 3,342	\$ 3,342	\$ 3,342	\$ 3,342	\$ 3,342	7,812	\$ 3,342	\$ 11,568	\$ 57,866	28.89%

S&P 500										
2018	2017	2016	2015	2014	2013	# Companies	Goodwill	Equity	Assets	G/W Assets
499	\$ 3,251	\$ 3,251	\$ 3,251	\$ 3,251	\$ 3,251	499	\$ 3,251	\$ 7,968	\$ 35,037	40.80%
499	\$ 3,048	\$ 3,048	\$ 3,048	\$ 3,048	\$ 3,048	499	\$ 3,048	\$ 7,756	\$ 34,170	39.30%
499	\$ 2,736	\$ 2,736	\$ 2,736	\$ 2,736	\$ 2,736	499	\$ 2,736	\$ 7,163	\$ 32,631	38.20%
497	\$ 2,442	\$ 2,442	\$ 2,442	\$ 2,442	\$ 2,442	497	\$ 2,442	\$ 6,903	\$ 31,035	35.38%
496	\$ 2,164	\$ 2,164	\$ 2,164	\$ 2,164	\$ 2,164	496	\$ 2,164	\$ 6,772	\$ 30,534	31.96%
494	\$ 2,075	\$ 2,075	\$ 2,075	\$ 2,075	\$ 2,075	494	\$ 2,075	\$ 6,734	\$ 29,403	30.81%

S&P 500 Companies with Goodwill										
2018	2017	2016	2015	2014	2013	# Companies	Goodwill	Equity	Assets	G/W Assets
444	\$ 3,251	\$ 3,251	\$ 3,251	\$ 3,251	\$ 3,251	444	\$ 3,251	\$ 7,217	\$ 33,037	45.05%
442	\$ 3,048	\$ 3,048	\$ 3,048	\$ 3,048	\$ 3,048	442	\$ 3,048	\$ 7,119	\$ 32,563	42.82%
439	\$ 2,736	\$ 2,736	\$ 2,736	\$ 2,736	\$ 2,736	439	\$ 2,736	\$ 6,558	\$ 31,050	41.72%
438	\$ 2,442	\$ 2,442	\$ 2,442	\$ 2,442	\$ 2,442	438	\$ 2,442	\$ 6,322	\$ 29,525	38.63%
431	\$ 2,164	\$ 2,164	\$ 2,164	\$ 2,164	\$ 2,164	431	\$ 2,164	\$ 6,109	\$ 28,707	35.42%
431	\$ 2,075	\$ 2,075	\$ 2,075	\$ 2,075	\$ 2,075	431	\$ 2,075	\$ 6,109	\$ 27,686	33.97%

S&P 500 Companies without Goodwill										
2018	2017	2016	2015	2014	2013	# Companies	Goodwill	Equity	Assets	G/W Assets
444	\$ 3,251	\$ 3,251	\$ 3,251	\$ 3,251	\$ 3,251	444	\$ 3,251	\$ 7,217	\$ 33,037	9.84%
442	\$ 3,048	\$ 3,048	\$ 3,048	\$ 3,048	\$ 3,048	442	\$ 3,048	\$ 7,119	\$ 32,563	9.36%
439	\$ 2,736	\$ 2,736	\$ 2,736	\$ 2,736	\$ 2,736	439	\$ 2,736	\$ 6,558	\$ 31,050	8.81%
438	\$ 2,442	\$ 2,442	\$ 2,442	\$ 2,442	\$ 2,442	438	\$ 2,442	\$ 6,322	\$ 29,525	8.27%
431	\$ 2,164	\$ 2,164	\$ 2,164	\$ 2,164	\$ 2,164	431	\$ 2,164	\$ 6,109	\$ 28,707	7.54%
431	\$ 2,075	\$ 2,075	\$ 2,075	\$ 2,075	\$ 2,075	431	\$ 2,075	\$ 6,109	\$ 27,686	7.49%

All Public Companies without Goodwill										
2018	2017	2016	2015	2014	2013	# Companies	Goodwill	Equity	Assets	G/W Assets
3,253	\$ -	\$ -	\$ -	\$ -	\$ -	3,253	\$ -	\$ 3,846	\$ 22,826	-
3,608	\$ -	\$ -	\$ -	\$ -	\$ -	3,608	\$ -	\$ 3,697	\$ 22,488	-
3,909	\$ -	\$ -	\$ -	\$ -	\$ -	3,909	\$ -	\$ 3,601	\$ 23,033	-
4,132	\$ -	\$ -	\$ -	\$ -	\$ -	4,132	\$ -	\$ 4,438	\$ 21,770	-
4,195	\$ -	\$ -	\$ -	\$ -	\$ -	4,195	\$ -	\$ 2,005	\$ 13,212	-
4,460	\$ -	\$ -	\$ -	\$ -	\$ -	4,460	\$ -	\$ 1,940	\$ 12,809	-

S&P 500/All Public Companies										
2018	2017	2016	2015	2014	2013	# Companies	Goodwill	Equity	Assets	G/W Assets
8%	58%	58%	58%	58%	58%	8%	58%	45%	37%	129%
7%	56%	56%	56%	56%	56%	7%	56%	44%	35%	128%
7%	56%	56%	56%	56%	56%	7%	56%	44%	37%	127%
7%	60%	60%	60%	60%	60%	7%	60%	46%	43%	130%
7%	61%	61%	61%	61%	61%	7%	61%	58%	51%	105%
6%	62%	62%	62%	62%	62%	6%	62%	58%	51%	107%

S&P 500/All Public Companies without Goodwill										
2018	2017	2016	2015	2014	2013	# Companies	Goodwill	Equity	Assets	G/W Assets
14%	58%	58%	58%	58%	58%	14%	58%	53%	45%	129%
13%	56%	56%	56%	56%	56%	13%	56%	51%	44%	111%
13%	56%	56%	56%	56%	56%	13%	56%	52%	48%	108%
13%	60%	60%	60%	60%	60%	13%	60%	60%	59%	100%
13%	61%	61%	61%	61%	61%	13%	61%	63%	62%	97%
13%	62%	62%	62%	62%	62%	13%	62%	63%	61%	98%

Difference (S&P 500/All Public Companies without Goodwill)										
2018	2017	2016	2015	2014	2013	# Companies	Goodwill	Equity	Assets	G/W Assets
2%	2%	2%	2%	2%	2%	2%	-	20%	9%	-
2%	2%	2%	2%	2%	2%	2%	-	17%	7%	-
2%	2%	2%	2%	2%	2%	2%	-	17%	7%	-
1%	1%	1%	1%	1%	1%	1%	-	13%	7%	-
2%	2%	2%	2%	2%	2%	2%	-	33%	14%	-
1%	1%	1%	1%	1%	1%	1%	-	32%	13%	-

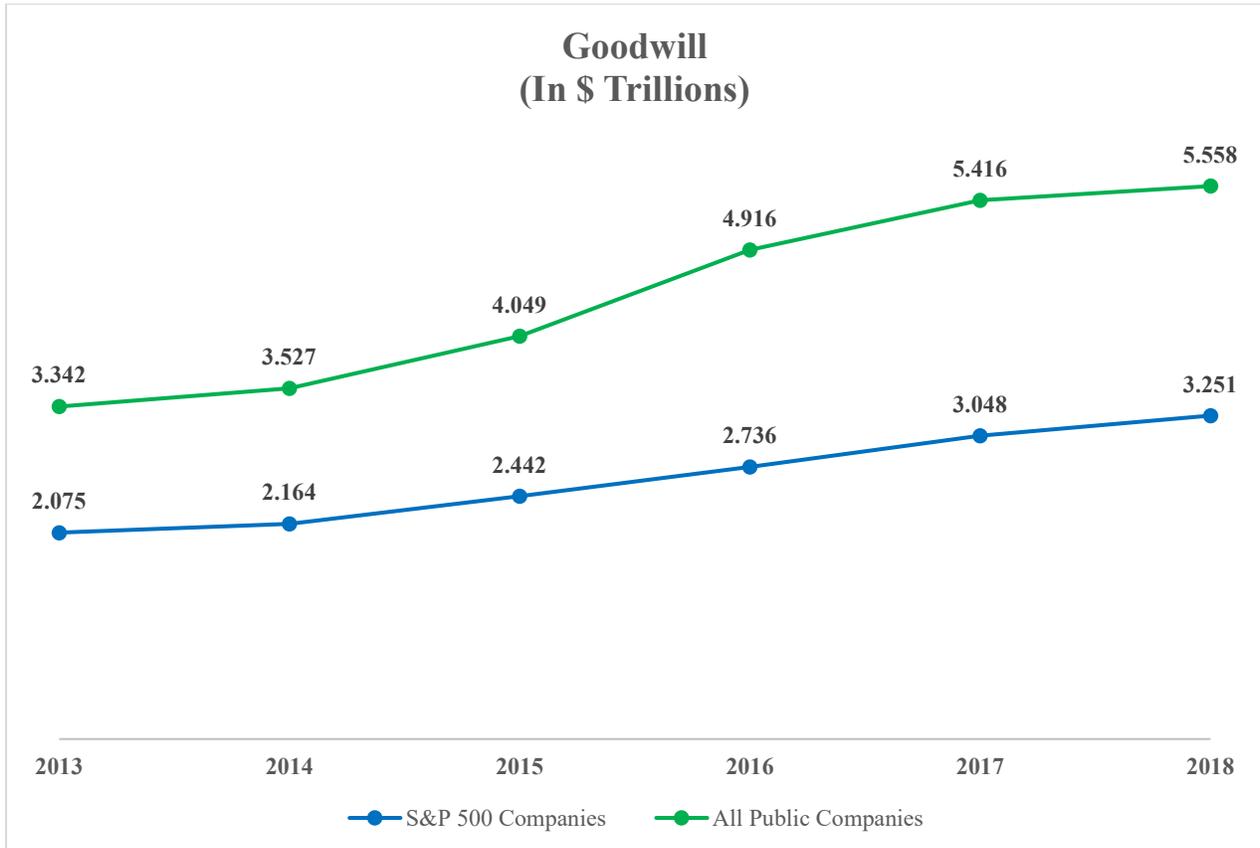
Note: This is the current S&P 500 looking backward over the period 2013 to 2018. The number of firms may be different than 500 because the S&P 500 count differs from 500 and companies move in and out of the index. This population of S&P 500 is sufficiently representative of the points made in this letter.

Note: Two numbers (one in 2014 and one in 2015) were adjusted because of data errors (currency & tagging) made by reporting companies.

Source: Calcbench

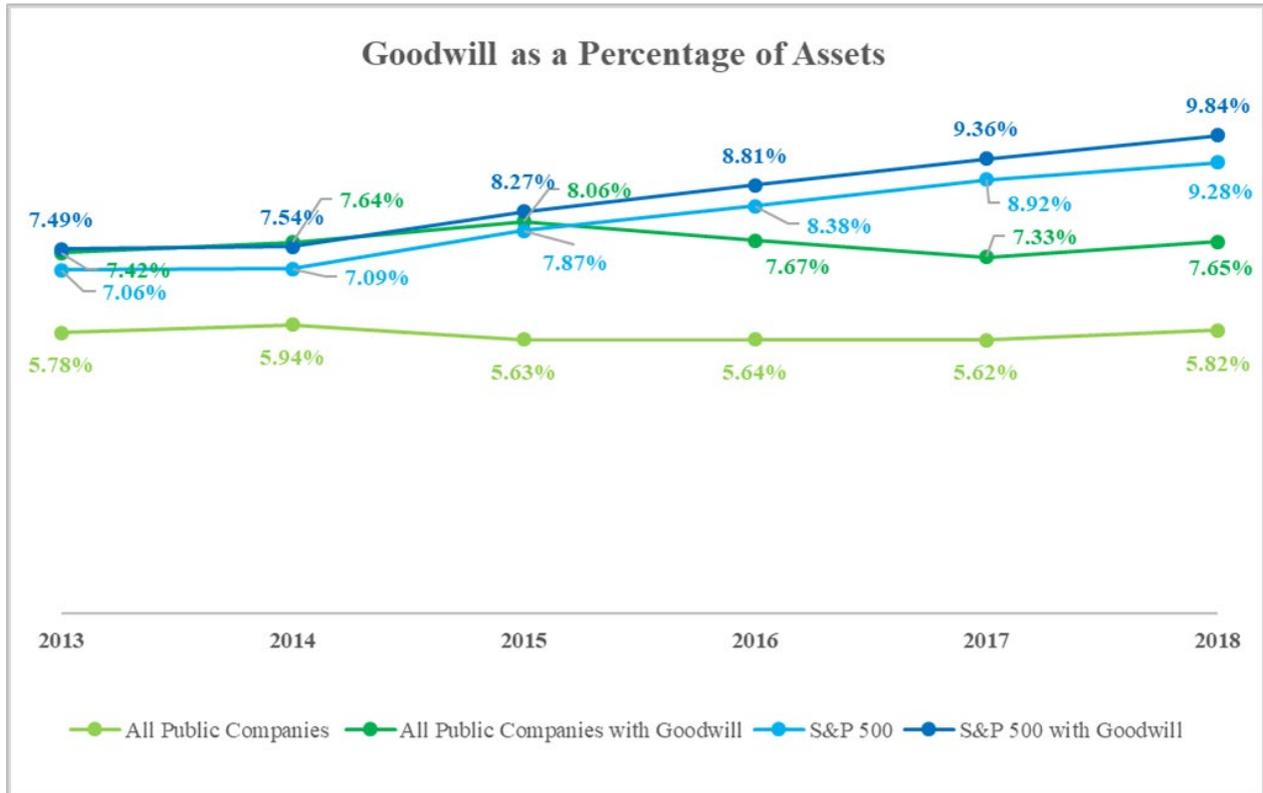
Charts 1, 2 and 3 illustrate the amount of goodwill, goodwill as a percentage of equity and goodwill as a percentage of assets, respectively, over the period from 2013 to 2018 as shown in **Table 1**.

Chart 1



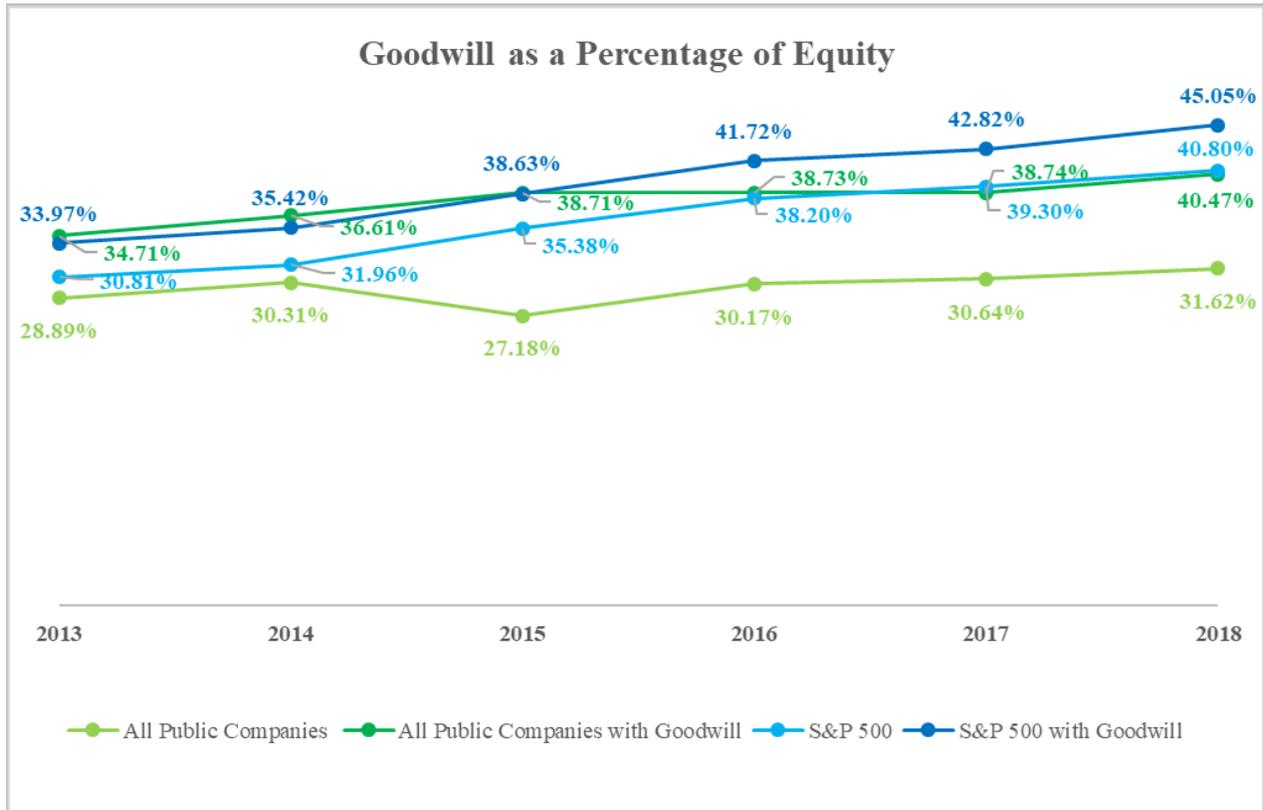
Source: Calcbench

Chart 2



Source: Calcbench

Chart 3



Source: Calcbench

The following are key takeaways from this data and ratio analysis:

Goodwill

- Goodwill in 2018 is \$5.6 trillion and \$3.3 trillion, respectively, for all public companies and the S&P 500.
- Goodwill has increased during the period 2013 to 2018 by \$2.3 trillion and \$1.2 trillion, respectively, for all public companies and the S&P 500.
- S&P 500 companies in 2018 comprise 8% of all public companies but 58% of all goodwill.
- Approximately 90% of all S&P 500 companies have goodwill balances and S&P companies with goodwill representing 14% of all public companies with goodwill.
- Overall, S&P 500 companies have a disproportionately large percentage of goodwill. Though only 8% of all public companies, the S&P 500 account for 50% of the growth in goodwill from 2013 to 2018.

S&P 500 companies with goodwill over \$20 billion in 2018 are listed in **Table 2**. These 41 companies account for \$1.6 trillion of the \$3.3 trillion, 50%, of the goodwill of S&P 500 companies and 29% of the goodwill of all U.S. public companies.

**S&P 500 Companies
Goodwill Balances Exceeding \$20 Billion
December 31, 2018**

Table 2

Company	Ticker	Goodwill
At&T Inc.	T	\$146,370,000,000
Berkshire Hathaway Inc	BRK	\$81,025,000,000
CVS HEALTH Corp	CVS	\$78,678,000,000
Bank Of America Corp	BAC	\$68,951,000,000
Comcast Corp	CMCSA	\$66,154,000,000
Unitedhealth Group Inc	UNH	\$58,910,000,000
Pfizer Inc	PFE	\$53,411,000,000
United Technologies Corp	UTX	\$48,112,000,000
Jpmorgan Chase & Co	JPM	\$47,471,000,000
Allergan plc	AGN	\$45,913,300,000
Cigna Corp	CI	\$44,505,000,000
Oracle Corp	ORCL	\$43,779,000,000
Microsoft Corp	MSFT	\$42,026,000,000
Procter & Gamble Co	PG	\$40,273,000,000
Medtronic plc	MDT	\$39,959,000,000
Kraft Heinz Co	KHC	\$36,503,000,000
International Business Machines Corp	IBM	\$36,265,000,000
DuPont de Nemours, Inc.	DD	\$34,496,000,000
General Electric Co	GE	\$33,974,000,000
Cisco Systems, Inc.	CSCO	\$31,706,000,000
Walt Disney Co	DIS	\$31,269,000,000
Walmart Inc.	WMT	\$31,181,000,000
Johnson & Johnson	JNJ	\$30,453,000,000
Charter Communications, Inc.	CHTR	\$29,554,000,000
Centurylink, Inc	CTL	\$28,031,000,000
Broadcom Inc.	AVGO	\$26,913,000,000
Linde Plc	LIN	\$26,874,000,000
Wells Fargo & Company	WFC	\$26,418,000,000
Danaher Corp	DHR	\$25,906,000,000
Thermo Fisher Scientific Inc.	TMO	\$25,347,000,000
Schlumberger Limited	SLB	\$24,931,000,000
Verizon Communications Inc	VZ	\$24,614,000,000
Intel Corp	INTC	\$24,513,000,000
Becton Dickinson & Co	BDX	\$23,600,000,000
Abbott Laboratories	ABT	\$23,254,000,000
Citigroup Inc	C	\$22,046,000,000
Kinder Morgan, Inc.	KMI	\$21,965,000,000
Mondelez International, Inc.	MDLZ	\$20,725,000,000
Baker Hughes Co	BKR	\$20,717,000,000
Anthem, Inc.	ANTM	\$20,504,000,000
Marathon Petroleum Corp	MPC	\$20,184,000,000
		\$1,607,480,300,000

Goodwill as a % of Assets

- Goodwill in 2018 represents 6% of the assets of all public companies and 9% of the assets of S&P 500 companies.
- Goodwill in 2018 represents 8% of the assets of all public companies with goodwill balances and 10% of the assets of S&P 500 companies with goodwill balances.
- Goodwill as a percentage of assets for all public companies and all public companies with goodwill has remained relatively stable at 5.62% to 5.94% and 7.33% to 8.06%, respectively, over the period from 2013 to 2018.
- Goodwill as a percentage of assets for S&P 500 companies and S&P 500 companies with goodwill has grown substantially from 7.06% to 9.28% and 7.49% to 9.84%, respectively, over the period from 2013 to 2018.
- S&P 500 companies have experienced a much more significant growth in goodwill as a percentage of assets.

Goodwill as a % of Equity

- Goodwill in 2018 represents 32% of the equity of all public companies and 41% of the equity of S&P 500 companies.
- Goodwill in 2018 represents 40% of the equity of all public companies with goodwill balances and 45% of the equity of S&P 500 companies with goodwill balances.
- Goodwill as a percentage of equity for all public companies has remained relatively stable at 28.9% to 31.6% but has grown rather substantially for all public companies with goodwill from 34.7% to 40.5% over the period from 2013 to 2018, respectively.
- Goodwill as a percentage of equity for S&P 500 companies and S&P 500 companies with goodwill has grown substantially from 30.8% to 40.8% and 34.0% to 45.0%, respectively, over the period from 2013 to 2018.
- S&P 500 companies have experienced a much more significant growth in goodwill as a percentage of equity – nearly 50% – over the period from 2013 to 2018.

Number of Years Profits Required to Offset Goodwill Amortization

If the private company amortization model is adopted, the profit of all companies with goodwill will be reduced by the amortization of goodwill. We performed an analysis using goodwill as of 2018 to determine how many companies in the S&P 500 would require longer than the ten-year amortization period to generate profits greater than the goodwill balance.

Using 2018 profits as the benchmark we found 69 companies that took greater than 10 years worth of 2018 profits to recoup the amortization (write-off) of goodwill. The 37 companies with a period longer than 20 years are shown in **Table 3**. As 22 companies had a net loss, they were assumed not to recoup the goodwill amortization as it would only increase the net loss.

A complete list is included in **Appendix A**.

This was a quick and dirty analysis to demonstrate the relationship of goodwill amortization to current public company profits and to provide stakeholders and policymakers with a sense as to the implication of implementing goodwill amortization on the income statement of public companies.

**S&P 500 Companies
Goodwill Balances Greater Than 20 Years of 2018 Profits
December 31, 2018**

Table 3

Company	Ticker	Goodwill	Stockholders Equity	Net Income	Years to Recoup
CVS Health Corp	CVS	\$78,678,000,000	\$58,721,000,000	(\$596,000,000)	No
Allergan plc	AGN	\$45,913,300,000	\$65,131,000,000	(\$5,086,200,000)	No
Kraft Heinz Co	KHC	\$36,503,000,000	\$51,775,000,000	(\$10,254,000,000)	No
General Electric Co	GE	\$33,974,000,000	\$51,481,000,000	(\$22,443,000,000)	No
Centurylink, Inc	CTL	\$28,031,000,000	\$19,828,000,000	(\$1,733,000,000)	No
Corteva, Inc.	CTVA	\$10,193,000,000	\$75,153,000,000	(\$5,018,000,000)	No
Western Digital Corp	WDC	\$10,076,000,000	\$9,967,000,000	(\$754,000,000)	No
Zimmer Biomet Holdings, Inc.	ZBH	\$9,594,400,000	\$11,276,100,000	(\$379,300,000)	No
TechnipFMC plc	FTI	\$7,607,600,000	\$10,388,900,000	(\$1,910,800,000)	No
Nielsen Holdings plc	NLSN	\$6,987,000,000	\$3,043,000,000	(\$700,000,000)	No
Qualcomm Inc	QCOM	\$6,498,000,000	\$807,000,000	(\$4,964,000,000)	No
National Oilwell Varco Inc	NOV	\$6,264,000,000	\$13,889,000,000	(\$22,000,000)	No
Coty Inc.	COTY	\$5,073,800,000	\$4,592,700,000	(\$3,769,600,000)	No
Newell Brands Inc.	NWL	\$3,692,900,000	\$5,253,200,000	(\$6,942,500,000)	No
Dentsply Sirona Inc.	XRAY	\$3,431,300,000	\$5,133,000,000	(\$1,010,900,000)	No
Hologic Inc	HOLX	\$2,533,200,000	\$2,428,800,000	(\$111,300,000)	No
Whirlpool Corp	WHR	\$2,451,000,000	\$3,205,000,000	(\$159,000,000)	No
Autodesk Inc	ADSK	\$2,450,800,000	(\$210,900,000)	(\$80,800,000)	No
Dollar Tree, Inc.	DLTR	\$2,296,600,000	\$5,642,900,000	(\$1,590,800,000)	No
Nisource Inc.	NI	\$1,690,700,000	\$5,750,900,000	(\$50,600,000)	No
Under Armour, Inc.	UA	\$546,494,000	\$2,016,871,000	(\$46,302,000)	No
Hess Corp	HES	\$360,000,000	\$10,888,000,000	(\$115,000,000)	No
Cisco Systems, Inc.	CSCO	\$31,706,000,000	\$43,204,000,000	\$110,000,000	288.24
NortonLifeLock Inc.	NLOK	\$2,677,000,000	\$5,738,000,000	\$31,000,000	86.35
Becton Dickinson & Co	BDX	\$23,600,000,000	\$20,994,000,000	\$311,000,000	75.88
Baker Hughes Co	BKR	\$20,717,000,000	\$35,013,000,000	\$283,000,000	73.20
American International Group Inc	AIG	\$4,082,000,000	\$57,309,000,000	\$61,000,000	66.92
Alexion Pharmaceuticals, Inc.	ALXN	\$5,037,400,000	\$9,165,300,000	\$77,600,000	64.91
Iqvia Holdings Inc.	IQV	\$11,800,000,000	\$6,954,000,000	\$284,000,000	41.55
Mckesson Corp	MCK	\$9,358,000,000	\$8,287,000,000	\$255,000,000	36.70
Perrigo Co plc	PRGO	\$3,979,800,000	\$5,668,100,000	\$131,000,000	30.38
Jacobs Engineering Group Inc	JEC	\$4,795,856,000	\$5,944,354,000	\$173,142,000	27.70
Mylan N.V.	MYL	\$9,747,800,000	\$12,167,100,000	\$352,500,000	27.65
Gartner Inc	IT	\$2,923,136,000	\$850,757,000	\$122,456,000	23.87
News Corp	NWS	\$5,147,000,000	\$10,311,000,000	\$228,000,000	22.57
Davita Inc.	DVA	\$6,841,960,000	\$3,908,398,000	\$333,040,000	20.54
Expedia Group, Inc.	EXPE	\$8,120,000,000	\$5,651,000,000	\$398,000,000	20.40

Equity Less Goodwill

Given the significant goodwill balances we observed when reviewing the data, we undertook an exercise for the S&P 500 companies where we deducted 2018 goodwill from equity balances.

Though we recognize there won't be an immediate write-off of goodwill, moving to a private company model schedules the write-down of this asset and the reduction of equity over the next 10 years. This is something investors will want to be mindful of when considering company value, ratios and the difference between book and market value – depending upon their view of whether goodwill is or is not a wasting asset of the investee company.

We noted that 112, approximately 25%, of the 444 S&P 500 companies with goodwill (\$997 billion of goodwill and \$633 billion of equity) have negative equity if goodwill is netted against equity. Twenty companies have negative equity prior to the deduction of goodwill. The total negative equity amounts to \$364 billion.

A complete list of these companies is provided in **Appendix B**.

Those entities with negative equity of greater than \$3 billion (35 entities) are show in **Table 4**. They have an aggregate goodwill of \$589 billion and negative equity of \$263 billion. Seven of such entities have negative equity before deducting goodwill.

This was a quick and dirty analysis to demonstrate the relationship of goodwill to existing equity balances and to provide stakeholders and policymakers with a sense as to the implication of implementing a change to the accounting for goodwill – whether direct write-off or amortization. The analysis which follows is meant to illustrate the profits necessary to recoup this write-off or amortization of goodwill. Overall, the impact to equity of the decision to amortize goodwill is significant. The impact to profitability ratios will be equally impactful.

**S&P 500 Companies
Goodwill Balances Greater Than Stockholders Equity
Companies with Equity Minus Goodwill Greater Than \$3 Billion
December 31, 2018**

Table 4

Company	Ticker	Goodwill	Stockholders Equity	Equity Minus Goodwill
AbbVie Inc.	ABBV	\$15,663,000,000	(\$8,446,000,000)	(\$24,109,000,000)
Oracle Corp	ORCL	\$43,779,000,000	\$22,363,000,000	(\$21,416,000,000)
CVS HEALTH Corp	CVS	\$78,678,000,000	\$58,721,000,000	(\$19,957,000,000)
International Business Machines Corp	IBM	\$36,265,000,000	\$16,929,000,000	(\$19,336,000,000)
Philip Morris International Inc.	PM	\$7,189,000,000	(\$10,739,000,000)	(\$17,928,000,000)
Northrop Grumman Corp	NOC	\$18,672,000,000	\$8,187,000,000	(\$10,485,000,000)
Lockheed Martin Corp	LMT	\$10,769,000,000	\$1,449,000,000	(\$9,320,000,000)
McDonalds Corp	MCD	\$2,331,500,000	(\$6,258,400,000)	(\$8,589,900,000)
Centurylink, Inc	CTL	\$28,031,000,000	\$19,828,000,000	(\$8,203,000,000)
TransDigm Group INC	TDG	\$6,223,290,000	(\$1,808,471,000)	(\$8,031,761,000)
General Dynamics Corp	GD	\$19,594,000,000	\$11,732,000,000	(\$7,862,000,000)
United Technologies Corp	UTX	\$48,112,000,000	\$40,610,000,000	(\$7,502,000,000)
Boeing Co	BA	\$7,840,000,000	\$410,000,000	(\$7,430,000,000)
General Mills Inc	GIS	\$13,995,800,000	\$7,367,700,000	(\$6,628,100,000)
Omnicom Group Inc.	OMC	\$9,384,300,000	\$3,106,900,000	(\$6,277,400,000)
Qualcomm Inc	QCOM	\$6,498,000,000	\$807,000,000	(\$5,691,000,000)
Firstenergy Corp	FE	\$5,618,000,000	\$41,000,000	(\$5,577,000,000)
Iqvia Holdings Inc.	IQV	\$11,800,000,000	\$6,954,000,000	(\$4,846,000,000)
Hilton Worldwide Holdings Inc.	HLT	\$5,160,000,000	\$558,000,000	(\$4,602,000,000)
Unitedhealth Group Inc	UNH	\$58,910,000,000	\$54,319,000,000	(\$4,591,000,000)
American Airlines Group Inc.	AAL	\$4,091,000,000	(\$169,000,000)	(\$4,260,000,000)
Viacom Inc.	VIA	\$11,609,000,000	\$7,465,000,000	(\$4,144,000,000)
Home Depot, Inc.	HD	\$2,252,000,000	(\$1,878,000,000)	(\$4,130,000,000)
Conagra Brands Inc.	CAG	\$11,460,100,000	\$7,463,700,000	(\$3,996,400,000)
Aon plc	AON	\$8,171,000,000	\$4,219,000,000	(\$3,952,000,000)
Nielsen Holdings plc	NLSN	\$6,987,000,000	\$3,043,000,000	(\$3,944,000,000)
Amerisourcebergen Corp	ABC	\$6,664,272,000	\$3,049,961,000	(\$3,614,311,000)
Republic Services, Inc.	RSG	\$11,400,100,000	\$7,929,500,000	(\$3,470,600,000)
Cigna Corp	CI	\$44,505,000,000	\$41,035,000,000	(\$3,470,000,000)
Fiserv Inc	FISV	\$5,702,000,000	\$2,293,000,000	(\$3,409,000,000)
Raytheon Co	RTN	\$14,864,000,000	\$11,472,000,000	(\$3,392,000,000)
Fidelity National Information Services, Inc.	FIS	\$13,545,000,000	\$10,222,000,000	(\$3,323,000,000)
Sherwin Williams Co	SHW	\$6,956,702,000	\$3,730,745,000	(\$3,225,957,000)
Moodys Corp	MCO	\$3,781,300,000	\$656,500,000	(\$3,124,800,000)
Western Union Co	WU	\$2,725,000,000	(\$309,800,000)	(\$3,034,800,000)
		\$589,226,364,000	\$326,353,335,000	(\$262,873,029,000)

Number of Years Profits Required to Offset Negative Equity

Recognizing that companies will earn profits during a 10-year goodwill amortization period, we undertook an exercise to determine the number of years of current year profits that would be necessary to return the negative equity to zero. Said differently, how many years does it take for current profits to offset (or earn back) the goodwill write-off.

Those entities with negative equity of greater than \$3 billion (35 entities) are include in **Table 5**. Of those entities, four companies have a net loss so they never earn back the goodwill (under our analysis) and one company with profits has a period longer than the ten year amortization period.

A complete list of the 112 companies with negative equity and the years necessary to recoup the goodwill amortization is shown in **Appendix C**. Eleven companies with negative equity are not assumed to recoup the goodwill amortization – eight because of a net loss and three due to a period to recoup in excess of ten years.

**S&P 500 Companies
Goodwill Balances Greater Than Stockholders Equity
Companies with Equity Minus Goodwill Greater Than \$3 Billion
Years to Recoup Equity Minus Goodwill Balances
December 31, 2018**

Table 5

Company	Ticker	Goodwill	Stockholders Equity	Equity Minus Goodwill	Net Income	Years to Recoup	Recoup?
AbbVie Inc.	ABBV	\$15,663,000,000	(\$8,446,000,000)	(\$24,109,000,000)	\$5,687,000,000	4.24	
Oracle Corp	ORCL	\$43,779,000,000	\$22,363,000,000	(\$21,416,000,000)	\$11,083,000,000	1.93	
CVS HEALTH Corp	CVS	\$78,678,000,000	\$58,721,000,000	(\$19,957,000,000)	(\$596,000,000)		No No
International Business Machines Corp	IBM	\$36,265,000,000	\$16,929,000,000	(\$19,336,000,000)	\$8,728,000,000	2.22	
Philip Morris International Inc.	PM	\$7,189,000,000	(\$10,739,000,000)	(\$17,928,000,000)	\$8,286,000,000	2.16	
Northrop Grumman Corp	NOC	\$18,672,000,000	\$8,187,000,000	(\$10,485,000,000)	\$3,229,000,000	3.25	
Lockheed Martin Corp	LMT	\$10,769,000,000	\$1,449,000,000	(\$9,320,000,000)	\$5,046,000,000	1.85	
McDonalds Corp	MCD	\$2,331,500,000	(\$6,258,400,000)	(\$8,589,900,000)	\$5,924,300,000	1.45	
Centurylink, Inc	CTL	\$28,031,000,000	\$19,828,000,000	(\$8,203,000,000)	(\$1,733,000,000)		No No
TransDigm Group INC	TDG	\$6,223,290,000	(\$1,808,471,000)	(\$8,031,761,000)	\$957,062,000	8.39	
General Dynamics Corp	GD	\$19,594,000,000	\$11,732,000,000	(\$7,862,000,000)	\$3,345,000,000	2.35	
United Technologies Corp	UTX	\$48,112,000,000	\$40,610,000,000	(\$7,502,000,000)	\$5,269,000,000	1.42	
Boeing Co	BA	\$7,840,000,000	\$410,000,000	(\$7,430,000,000)	\$10,460,000,000	0.71	
General Mills Inc	GIS	\$13,995,800,000	\$7,367,700,000	(\$6,628,100,000)	\$1,786,200,000	3.71	
Omnicom Group Inc.	OMC	\$9,384,300,000	\$3,106,900,000	(\$6,277,400,000)	\$1,440,500,000	4.36	
Qualcomm Inc	QCOM	\$6,498,000,000	\$807,000,000	(\$5,691,000,000)	(\$4,964,000,000)		No No
Firstenergy Corp	FE	\$5,618,000,000	\$41,000,000	(\$5,577,000,000)	\$1,348,000,000	4.14	
Iqvia Holdings Inc.	IQV	\$11,800,000,000	\$6,954,000,000	(\$4,846,000,000)	\$284,000,000	17.06	No
Hilton Worldwide Holdings Inc.	HLT	\$5,160,000,000	\$558,000,000	(\$4,602,000,000)	\$769,000,000	5.98	
Unitedhealth Group Inc	UNH	\$58,910,000,000	\$54,319,000,000	(\$4,591,000,000)	\$12,382,000,000	0.37	
American Airlines Group Inc.	AAL	\$4,091,000,000	(\$169,000,000)	(\$4,260,000,000)	\$1,412,000,000	3.02	
Viacom Inc.	VIA	\$11,609,000,000	\$7,465,000,000	(\$4,144,000,000)	\$1,759,000,000	2.36	
Home Depot, Inc.	HD	\$2,252,000,000	(\$1,878,000,000)	(\$4,130,000,000)	\$11,121,000,000	0.37	
Conagra Brands Inc.	CAG	\$11,460,100,000	\$7,463,700,000	(\$3,996,400,000)	\$678,400,000	5.89	
Aon plc	AON	\$8,171,000,000	\$4,219,000,000	(\$3,952,000,000)	\$1,174,000,000	3.37	
Nielsen Holdings plc	NLSN	\$6,987,000,000	\$3,043,000,000	(\$3,944,000,000)	(\$700,000,000)		No No
Amerisourcebergen Corp	ABC	\$6,664,272,000	\$3,049,961,000	(\$3,614,311,000)	\$1,615,892,000	2.24	
Republic Services, Inc.	RSG	\$11,400,100,000	\$7,929,500,000	(\$3,470,600,000)	\$1,037,600,000	3.34	
Cigna Corp	CI	\$44,505,000,000	\$41,035,000,000	(\$3,470,000,000)	\$2,646,000,000	1.31	
Fiserv Inc	FISV	\$5,702,000,000	\$2,293,000,000	(\$3,409,000,000)	\$1,187,000,000	2.87	
Raytheon Co	RTN	\$14,864,000,000	\$11,472,000,000	(\$3,392,000,000)	\$2,882,000,000	1.18	
Fidelity National Information Services, Inc.	FIS	\$13,545,000,000	\$10,222,000,000	(\$3,323,000,000)	\$881,000,000	3.77	
Sherwin Williams Co	SHW	\$6,956,702,000	\$3,730,745,000	(\$3,225,957,000)	\$1,108,746,000	2.91	
Moodys Corp	MCO	\$3,781,300,000	\$656,500,000	(\$3,124,800,000)	\$1,319,400,000	2.37	
Western Union CO	WU	\$2,725,000,000	(\$309,800,000)	(\$3,034,800,000)	\$851,900,000	3.56	

The Bottom Line: Amortization Will Have a Significant Detrimental Impact on Equity & Earnings of U.S. Public Companies

A decision by the FASB to adopt private company accounting for goodwill would result in the amortization (write-off) over ten years of \$5.6 trillion of assets on the books of U.S. public companies. This amounts to 6% of all public company assets and 8% of the assets of public companies with goodwill. Goodwill represents 32% and 40%, respectively, of the equity of such public companies. More staggering is the effect this would have on S&P 500 companies. With \$3.3 trillion in goodwill, the S&P 500 represent nearly 60% of the goodwill of all U.S. public companies, though S&P 500 companies represent only 8% of U.S. public companies and 37% of the assets of U.S. public companies. Goodwill represents 10% of the assets and 45% of the equity of S&P 500 companies with goodwill.

Adopting the private company approach to goodwill amortization would schedule the write-off (amortization) of a substantial portion of the assets and equity of U.S. public companies and reduce profits of the S&P 500 by \$330 billion (\$560 billion for all U.S. public companies) for ten years. Because goodwill impairments are not tagged separately from all other asset type impairments, it is not possible to ascertain precisely the resulting incremental amortization impact. That said, in 2018, asset impairment charges for all public companies were \$158 billion – up from \$108 billion in 2017 and \$104 billion in 2016 – due significantly to the \$23 billion impairment at GE. At an impairment rate of approximately \$100-\$150 billion, it would take substantially more the 10 years to amortize away existing goodwill. It would be an annual increase of \$400-\$450 billion in amortization and a similar decrease in profits. The growth in goodwill from 2013 to 2018 highlights that a change to amortization would result in a substantial reduction in assets and equity as impairments are not as high as will be amortization.

Our analysis included herein is a rough approximation of the implications of the impact of moving to an amortization model. We include this data such that all stakeholders properly contextualize and understand the magnitude and implications of a move to goodwill amortization.

The Cost of Impairment Testing

Impairment Cost Survey

On Page 8 of the Goodwill Invitation to Comment, the FASB articulates the following assumption in the preparation of the Invitation to Comment:

This ITC seeks feedback on whether a change is warranted. The remainder of this ITC assumes that the cost of the present accounting model [impairment] exceeds the benefit and that a change [to amortization] is warranted.

Throughout the Goodwill ITC the presumption is that identifying intangibles and computing goodwill, as well as subsequently evaluating their impairment, is too costly and does not justify the benefit. However, *neither the impairment cost nor the benefit (i.e. the value relevance of impairment information) is explored in the consultation.*

The FASB must perform a survey of impairment costs such that investors can better evaluate whether the cost of the impairment testing is worth the information content from the performance of the impairment evaluation. *Currently, the FASB's analysis of the cost of impairment is only anecdotal. Given investors pay the cost of the impairment test, this information should be made transparent such that investors are able to perform the cost/benefit analysis. We do not think such an important decision should be made without an explicit articulation of the cost – given this is the primary driver (and the guiding assumption as we outline above) of why goodwill accounting is being addressed again by the FASB.* Investors should be able to have the data to make a judgement for themselves.

The data in the preceding section highlights the magnitude of the size of goodwill balances to the largest U.S. Companies. *The sheer magnitude of the goodwill balances (\$5.6 trillion on the books of all U.S. public companies and \$3.3 trillion on the books of the S&P 500) and the consequence of a decision to amortize goodwill (i.e. scheduling the write off of 10% of total assets and 45% of equity of the S&P 500 companies with goodwill) warrants an empirical cost/benefit analysis – rather than simply an assumption that the cost exceeds the benefit.*

Identification and compilation of the costs should be relatively easy as the costs include internal management time, external specialist and auditor time all of which are relatively discrete and identifiable.

Costly Impairments: Investors Make the Assessment Earlier & With Less Information

Much of the argument set forth in the Goodwill ITC is that the cost of performing impairment testing is so prohibitive that amortization should be implemented as a proxy. Despite preparers having far more information and insight into the business, there is substantial empirical evidence that the write-off of goodwill is reflected in the share price of a company by capital market participants prior to when the actual write-off occurs and is announced by company management.

Accordingly, the FASB needs to reconcile preparer narratives regarding the cost and complexity of impairment testing to the market's more timely – and more cost effective – recognition of impairments. Preparers' cost narrative should create a series of questions for standard setters, including:

- How can investors with less information than company management perform a more effective impairment test?
- Why isn't management taking impairment charges in a more timely manner?
- How could it be less costly for each investor in a company to perform an impairment test, rather than company management performing the impairment test – especially with its superior information?
- Why would amortization eliminate the need for impairment as investors are likely to continue to perform valuations and recognize impairments?

This Socratic exercise – as well as the lack of economic relevance of amortization figures (as we highlight below) – should be a paramount consideration to members of both Boards as they evaluate the push toward amortization over impairment. ***Overall, the Boards need to determine if the cost of impairment can be too high given the market seems to perform such an analysis with less information.***

The Future of Financial Reporting: Moving Backward or Forward Economic Relevance & Decision-Usefulness of Financial Statements

We are concerned with the assumption in the Goodwill ITC not only because it reveals a bias in the consultation, but because it reveals a bias toward historical financial reporting measurements that jeopardize the relevance to investors of financial statements, financial reporting and the related accounting and auditing professions.

In the midst of an era of unprecedented technological disruption – where intangibles are driving enterprise valuations and where historical transactions may be accounted for and audited using technology rather than human capital – the assumption underlying this consultation is surprising. Returning financial statements to an era where intangible valuations are less meaningful and where impairment is replaced by rote amortization rolls back the relevance of financial reporting. ***Stepping back and considering this consultation in the context of the current technological and information environment must require investors to consider whether standard setters, regulators and policymakers understand the current and future investment decision-making information ecosystem and whether they have a strategic plan or direction regarding how their policymaking decisions impact the future relevance of financial statements.***

The fact that both the recognition and subsequent measurement of goodwill is considered too difficult and costly to perform by preparers reflects, to our mind, a profession not keeping pace with the changes in the economy and technology and the value they bring to the information ecosystem. Audit reforms being debated in the UK are bringing to the forefront the value of auditors and the financial statements they audit. The call for more forward-looking work by management and auditors in the Brydon Review means the underlying information must be more forward-looking and future oriented – as an audit cannot be forward-looking if the information is backward looking.

The assumption upon which this ITC is premised is antithetical to the desire of investors (and other stakeholders) for financial reporting and annual reports to be more relevant to their interests.

Further, the early disclosure of critical audit matters (CAMs) shows that goodwill impairment testing is one of the most, if not the most, prevalent CAM. Elimination of goodwill impairment testing would likely eliminate this CAM – at the same time eliminating the judgements and value-added exercise of auditing the value of this, and other, intangible assets.

Overall, this proposal concerns us as we believe the accounting profession should embrace the need to evolve not revert to the accounting of two decades ago – a reversion which will impede the value the accounting and auditing profession can bring to investors. ***We believe the FASB should spend its time defining the value relevant information for the future rather than spend time debating a reversion to the accounting of 20 years ago.***

Forthcoming Thought Leadership: Investor Survey and Perspectives

CFA Institute plans to complete a survey and thought leadership piece in early 2020 on the topic of intangibles and goodwill. We will consult the Boards to determine if there are any issues they would like specifically queried, in addition to those outlined in their preliminary consultations. The views expressed herein are based on decades of discussion with our investor members and investors, more broadly, on this topic. The survey and thought leadership seeks to compile investor perspectives in one location for use by policymakers.

CONSULTATION SPECIFIC CONSIDERATIONS

We have not responded specifically to each of the questions in the Invitation to Comment. Rather, we provide an overview of our views on the initial recognition of intangibles, the subsequent accounting for goodwill and potential disclosure improvements – the three key sections of the Invitation to Comment. We will provide more detailed observations in the thought leadership piece we anticipate issuing in 2020.

Initial Recognition of Intangibles

CFA Institute has long supported the recognition and measurement of intangible assets. As we note above, the FASB's consideration of providing less insight into the nature and value of acquired intangibles in an era of unprecedented technological disruption where intangibles are drivers of substantial economic value is surprising. In our 2012 publication, [*Financial Reporting Disclosures: Investor Perspectives on Transparency, Trust and Volume*](#), we made the following comments

Existing Accounting Model: Providing Decision-Useful Information in Today's Economy?

Like the delivery of financial reporting information, the accounting model that underpins financial reporting was developed more than 40 years ago in an economic context that is significantly different from today's context. Some suggest that while the accounting model is suited for a manufacturing economy, the existing accounting model may not provide the most decision-useful information for today's investors, given that the current economy is heavily based on information technology, financial services, and services generally.

Technology Companies

For example, valuation of intangible assets is important to technology companies in explaining their value to investors, yet there is no reflection of such intangibles in the financial statements or any disclosures in the notes regarding how such values might be assessed. Investors thus question whether financial statements for this segment of the economy provide meaningful and decision-useful financial information.

Recommendations: Enhancing Financial Reporting and Disclosure Effectiveness

15. Intangible Assets

Investors require clear and complete information about intangible assets acquired or developed by a company. Intellectual property and other intangible assets are increasingly the economic drivers for many businesses. These assets may be the major sources of a company's revenue generation or contribute significantly to its expense structure. Many, if not most, intangibles, however, are not recognized in the financial statements. But clear and complete information about intangible assets, whether on or off the balance sheet and whether purchased or generated internally, is essential for investors' analyses.

regarding investors views on the recognition and disclosure of intangibles. Investors – as we highlighted seven years ago – want more, not less, information regarding intangibles and the long-term value creating activities of the business. All approaches outlined in

the Invitation to Comment except Approach 4 would decrease the value relevant information contained in financial statements.

We believe the FASB and SEC should be working to provide improved disclosures on value creation and a disclosure (or accounting model) that reflects the importance of intangibles – whether purchased or internally generated – in the current economy rather than moving backward to the accounting of 20 years ago. See also discussion of disclosures that follows.

Goodwill: What Is It?

The consultation does not address the conceptual definition of goodwill in the existing literature and whether this ITC seeks to change that conceptual definition of goodwill. Because amortization presumes goodwill is a wasting asset, defining goodwill is essential before any determination can be made regarding mandating amortization.

Some perceive goodwill solely represents the present value of future profits of the acquired enterprise. Accordingly, they believe as the purchased profits emerge goodwill should be reduced. Others, however, believe goodwill can include other intangibles that have an indefinite life.

While amortization presumes all goodwill is a wasting asset, impairment provides the opportunity to reflect the finite or indefinite life of the goodwill asset. An impairment test will reflect the wasting nature of goodwill if it has a finite life, and unlike amortization, also allows recognition of the indefinite lived portion of goodwill.

We believe goodwill may not be a wasting asset in many cases and, for that reason, amortization can be a contradiction to economic reality. ***It is our view that this conceptual question must be answered before any determination is made regarding mandating amortization.***

Subsequent Accounting for Goodwill: Economic Relevance of Information Should be Focus FASB Has Not Demonstrated: Basis for Change & Whether Change is Improvement in Financial Reporting for Investors

CFA Institute supported the implementation of the impairment model for goodwill because we believed, when done effectively, impairment communicates the performance of the acquisition undertaken by management of an investee company (i.e. assuming it is done at the appropriate level and recognized timely). An accounting change to bring back amortization could ease operational aspects and costs for preparers and auditors. However, it would not be helpful to users and capital markets as the accounting will likely move away from the underlying economics – because, as we state above, impairment testing allows recognition of the fact that goodwill can have a finite or indefinite life.

We do not believe the FASB has made a compelling argument in support of eliminating goodwill impairment. The ITC does not explain why the current impairment-based model needs to change or why it needs to change right now – other than to say it is costly to prepare impairment tests. Further, there is no empirical evidence as to the cost of impairment testing. Still further, the Invitation to Comment does not explain why the FASB’s (and IASB’s) previous conclusion that

impairment was the appropriate accounting was incorrect. Overall, the Invitation to Comment does not explain how a change away from impairment toward amortization would result in an improvement in corporate reporting – a condition precedent to any accounting change.

The Real Issue:

Delayed Recognition of Impairment & Improvements Needed in Impairment Testing

While certainly some analysts and investors support amortization, this support is generally a pragmatic stance that recognizes companies fail to timely recognize the results of the impairment testing and that equity is artificially inflated by impaired goodwill not yet recognized by management. The delayed recognition of impairments, along with improvements in impairment testing, are the problems that needs to be addressed – and amortization is the wrong solution to that problem.

The Goodwill ITC indicates on Page 7 that some believe impairments are simply cumulative amortization charges not previously taken. We disagree. As we note above, we believe impairments reflect the performance of the acquired business over time. If there are annual decreases in the value of the business acquired, they will be reflected in annual impairment charges. ***It is precisely because impairments have information content – regarding the success or failure of management’s acquisitions – that impairments that they are delayed. It is the moral hazard of management not wanting to communicate poor performance that causes the delay in recognition of impairment charges. Amortization, as we describe below, grades all managers (good or bad) equally.***

Because we believe impairment is a necessary element of evaluating the performance of an acquisition, we could never support a model that would result in amortization without any type of impairment testing. ***Arbitrary, default or capped amortization periods will never provide an appropriate valuation of the downside risk of acquisitions that don’t fulfill their promised value.*** Failure to accompany any amortization method with an impairment test would delay the write-off of goodwill on acquisitions that go bad quickly – consider the GE and Kraft Heinz examples highlighted previously.

Most investors do not understand the concept of goodwill impairment testing at the “reporting unit” level. They do not understand the concept because it is generally not well disclosed or sufficiently explained in the financial statements. The degree of integration of the acquisition into the reporting unit and the impact on the goodwill impairment test is also not well explained. Investors do not have insight into the degree to which acquired versus existing cash flows are being used to support the value of the goodwill and the ability of the impairment testing to provide insight into the performance of acquisition or the performance of the reporting unit as a whole. What is not communicated to investors is the point where impairment testing of the goodwill becomes impairment testing of the reporting unit rather than the acquisition. In the longer-term, the impairment test may actually communicate the value of the reporting unit rather than the value of goodwill alone. This, however, is not sufficiently disclosed to investors. To our mind, this is something that not only investors want to know. Boards too should want to have an understanding of this as they monitor post-deal performance. This should be an oversight, not simply an accounting, concern.

The Board and Management Should Be Evaluating Performance of Acquisitions

The push to eliminate impairment testing because it is too costly or too difficult should trigger for investors another question: How are company boards evaluating the performance of an acquisition relative to the projections reviewed when making the acquisition decision? While investors understand that integration can make the impairment analysis “messy”, projections of revenues, expenses, integration strategies and synergies existed before the deal was approved by the board and consummated by the company. Accordingly, there should be an ability to quantitatively and/or qualitatively assess the performance of the acquisition after it has been completed. And, the board should be evaluating the performance of these acquisitions. ***Investors want board members to monitor the profitability of these capital allocation decisions. Directors have the ability to request the information needed to evaluate acquisitions in the periods after completion and we believe the impairment testing can and should be part of that process. The notion that impairment testing is too costly to perform should raise for investors the question regarding what the board is doing to execute its oversight responsibilities.***

Behavioral Benefits of Impairment Testing

We know from our prior advocacy work on, for example, pensions that what gets measured and disclosed is what gets monitored. ***Anecdotally, we hear that the need to isolate and value intangibles as a part of the acquisition and do subsequent impairment testing has enhanced the communication, engagement and discipline of deal execution within organizations.*** We find this an important behavioral benefit that the FASB has not articulated or quantified in the Invitation to Comment.

Further, ***we believe the behavioral benefits of impairment testing could be expanded by providing additional disclosures to investors as they would focus management and the board on monitoring of acquisitions.***

Still further, on the behavioral front, we believe the identification of goodwill impairment as one of the most common critical audit matters (CAMs) – and further discussion with the audit committee – should have the behavioral impact of creating timelier recognition of impairments. Time will tell.

Amortization: Not a Substitute for Bad Impairment Testing

We worry that implementing amortization rewards poor or untimely impairment testing and will reduce the behavioral benefits of impairment testing and disguise the failure to monitor the performance of acquisitions. Impairment testing requires management, the board and the auditors to assess the forward-looking prospects of a business. Without it, there is nothing that facilitates a forward-looking analysis of the business. This has been a significant consideration in the UK audit reform movement. As we have highlighted in our analysis of UK audit reforms, auditors and management cannot make forward-looking decisions with backward looking data – in this case amortization rather than impairment. The challenge, and benefit, of impairment testing is that it requires management, the board and auditors to look forward rather than backward. As a result, goodwill is cited as one of, if not the most prevalent critical audit matter in the new U.S. audit report. Overall, moving to amortization – especially without impairment – is more than simply an exercise in cost efficiency. It has the effect of eliminating the key forward-looking assessment of the prospects of a business and the forward-looking value of a key asset.

Amortization Decreases Usefulness of Earnings to Investors: Non-GAAP Measures will Rise

Prior to adoption of the new business combination and impairment testing guidance, CFA Institute published in a 2001 issue of the Financial Analysts Journal – a sponsored publication of the CFA Institute – as study, [*Goodwill Amortization and the Usefulness of Earnings*](#)⁶. Below is an abstract of the publication:

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

Analysts frequently face the problem of how to consider goodwill amortization in their financial analysis. *For many years, financial statement preparers and users have criticized the accounting requirement to amortize purchased goodwill against revenues over a period not to exceed 40 years. Critics have argued that goodwill may not decline in value and that, even if it does, the arbitrary amounts recorded periodically as goodwill amortization are unlikely to reflect that decline. In this view, goodwill amortization simply adds noise to earnings, thereby reducing their usefulness to investors. Accounting standard setters, in contrast, have until recently maintained that goodwill is likely to be a wasting asset in most circumstances and that recording goodwill amortization makes reported earnings more useful to investors by reflecting its decline in value. We provide empirical evidence as to which of these views is more consistent with the way in which investors price securities.*

This issue is of current interest to investors and analysts because of a recent change in the accounting rules for purchased goodwill. Under Statement of Financial Accounting Standards No. 142, *Goodwill and Other Intangible Assets*, the reported earnings of acquiring companies will no longer include charges for goodwill amortization. Goodwill acquired in a business combination is recognized as an asset, as in the past, but once it is recognized, the asset remains on the balance sheet indefinitely, subject only to review for impairment when circumstances warrant. Thus, the question arises of whether excluding goodwill amortization from reported earnings will enhance or detract from its usefulness to investors.

To investigate this issue, we document the extent to which variation in stock prices is explained by earnings before goodwill amortization and by reported earnings, which includes goodwill amortization. Our analysis, based on a large sample of publicly traded companies reporting purchased goodwill in the six-year period of 1993–1998, involved comparing R^2 s from two cross-sectional regressions—one of stock price on earnings per share *before* goodwill amortization and the other of stock price on reported earnings. In interpreting the results of these comparisons, we assumed that prices reflect all value-relevant public information, so the earnings measure that explains more of the variation in stock prices can be viewed as the more useful summary indicator of share value.

Our results provide evidence consistent with the criticisms of the previous accounting rules for goodwill. In each year and for the six-year period as a whole, earnings before goodwill amortization explain more of the variation in share prices than reported earnings, and for each year, the difference in explanatory power is statistically significant. Moreover, when we regressed stock prices on earnings before goodwill amortization and on goodwill amortization, we found that the estimated coefficient (valuation multiple) on earnings before goodwill amortization was large and highly significant whereas the estimated coefficient on goodwill amortization was statistically indistinguishable from zero. **This finding strongly suggests that goodwill amortization merely adds noise to reported earnings. Overall, these results indicate that the recently adopted reporting rules for purchased goodwill are likely to increase the usefulness of earnings as a summary indicator of share value.**

⁶ Jennings, LeClere, and Thomson, Financial Analysts Journal, [Goodwill Amortization and the Usefulness of Earnings](https://www.tandfonline.com/doi/abs/10.2469/faj.v57.n5.2478), Volume 57, 2001 – Issue 5. <https://www.tandfonline.com/doi/abs/10.2469/faj.v57.n5.2478>

In short, the research⁷ demonstrates (see bolded highlights above) that earnings before goodwill amortization are more explanatory to share price than is earnings with goodwill amortization. As such, **implementing amortization will make US GAAP earnings less relevant to investors and will cause a rise in non-GAAP measures of performance.**

What the study highlights is the fact that each quarter amortization of goodwill will be adjusted out of earnings by analysts – and management. **The consequence will be an even greater use of non-GAAP measures and the need for every investor to adjust earnings to remove the amortization each quarter. This demonstrates how US GAAP and IFRS will be less relevant each quarter.**

While certainly analysts and investors also remove impairment charges from their analysis, it is not because these amounts do not have information content. As we highlight above, impairment charges communicate the performance of a transaction. It is simply that impairment charges, like amortization, need to be removed to determine base-line earnings and cash flow projections. With goodwill amortization this adjustment will need to be made every quarter rather than periodically and the amortization, unlike impairment charge, has no information content.

It is essential the Boards highlight that both amortization and impairment are added back because investors are attempting to normalize cash flow projections – not because the information content in impairment and amortization are equivalent. As we observe the conversation on “add back” of amortization or impairment we find that there is a misunderstanding between investors and accountants. Accountants don’t always understand that the amounts are being added back because they are non-cash charges. It is the lack of a more useful cash flow that necessitates the conversion of the income statement into the statement of cash flows from earnings.

While preparers extol the benefits of amortization over impairment, they will be the first to produce non-GAAP measures that eliminate goodwill amortization. This rise in non-GAAP measures should be a consideration for standard-setters and regulators as they evaluate the basis for the change. A short amortization period could result in premature amortization of goodwill – that gets added back in a non-GAAP measure – and shields management from impairment. It may also have the effect of protecting auditors and regulators from criticism in situations where impairments are deliberately delayed. However, it will be detrimental to market integrity because of the lack of information content in amortization and the discipline in deal execution and management evaluation of the forward-looking prospects of the business that come from impairment testing. In contrast, a timely recognition of impairment will reflect the improvement in financial reporting, audit quality and effectiveness of regulatory oversight. Overall, this will enhance confidence and trust in the financial reporting process.

Interestingly, should amortization be reinstated, the IASB’s project on Management Performance Measures would likely include a net profit measure than includes goodwill amortization and a separate management performance measure on the face of the income statement – also audited – that excludes the amortization of goodwill.

⁷ Also interesting in the excerpt is the recapping of views (see bolded highlights in the second paragraph of the excerpt above) regarding whether goodwill is a wasting asset and the usefulness of goodwill amortization.

Amortization: Provides No Measure of Performance & Equalizes Good and Bad Managers

Many preparers object to current value measurements because they believe they obscure the performance of management. So too does the amortization of goodwill. ***Whether management's acquisition decision was value generating or destroying, the income statement will reflect the same result under an amortization model. In that way, there is no measurement of the performance of management in the income (or performance) statement.*** This would be especially true if amortization was adopted with arbitrary or default amortization periods without a need to continue impairment testing. ***Accordingly, amortization does not facilitate an investors ability to differentiate between good and bad acquisitions and good and bad managers.*** In that way, amortization adds nothing to the performance statement. It simply acts to cure, over time, the ills of past acquisitions, and artificially improves many performance measures. As we note below – amortization detracts from effective financial analysis.

Amortization Creates Favorable Ratio Trends Despite Any Action by Management

Amortization of goodwill has the impact of artificially smoothing and improving profitability ratios over time (e.g. ROE, ROA, etc.) simply by the operation of amortization over time and the resulting decrease in assets and equity – this is especially true if management adds back the amortization of goodwill to “pro forma” earnings. The same earnings relative to lower equity and assets will imply favorable performance when, in fact, the rote amortization of goodwill is contributing to this “trend.” Said differently, ***without any improvement in earnings, returns will look improved with goodwill amortization. For that reason, the amortization creates a ratio trend that can be misleading.***

Amortization Period

We find that the discussion of amortization period in the Goodwill ITC highlights the arbitrary nature of the amortization debate. The Goodwill ITC notes that a default period could be appropriate and that approaches that require management judgement regarding the amortization period would be costly. This commentary in the ITC on the amortization period highlights the lack of information content and value relevance of amortization especially if the amortization bears no relationship to the period over which the cash flows from the transaction are earned, nor includes any management judgement regarding the transaction. Without management judgement in determining the amortization period, or a relationship of the amortization period to the cash flows of the acquisition, amortization is simply a mechanical way of eliminating the goodwill asset from the balance sheet.

In our view, if there were to be amortization, the amortization period would need to reflect the period over which the cash flows were estimated to be realized at deal acquisition and this period would be updated based upon performance of the deal. Such amortization period would need to be disclosed as such disclosure has information content to investors. The information content of such a disclosure is that it conveys management's expectation and in that way is far more useful than a default period that has no meaning.

If a default period is considered, we believe the Boards should consider immediate write-off of goodwill as doing so will eliminate the need to adjust earnings in each future period to remove goodwill amortization. Further, immediate write-off would eliminate the fictitious improvement

in trends like return on assets and equity brought about by goodwill amortization. Investors must ask: If goodwill is not an asset to be appropriately valued, why not simply write the amount off immediately?⁸

Disclosures

Improving Disclosures: The Necessary First Step

Investors are united in their interest in assessing the performance of the acquisitions that generate goodwill – even if they are not of one voice with respect to amortization versus impairment of goodwill. Accordingly, we believe improving disclosures regarding the initial recognition and valuation of goodwill and intangibles and the related impairment testing would be the most useful first step before any changes are made to the recognition or impairment of intangibles, including goodwill. The [IASB is considering additional disclosures such as the recently discussed at the 2019 World Standard Setters Conference](#). ***We believe the FASB should be working with the IASB to craft improved disclosures not only because we believe this is the appropriate way forward, but because maintaining global convergence is essential.***

Disclosures Must Be Improved Even if Amortization Is Implemented

We assess the information value of amortization to be zero as it is an accounting rather than economic convention, and as such, is not relevant to valuation. Amortization provides no new data to help investors assess the success or failure of acquisitions over time and does not assist in our assessment of the value of these intangibles. In contrast, an impairment approach creates new data for users and should not therefore be abandoned.

As we note above, anecdotal cost estimates about impairment valuation need to be backed with empirical evidence to permit an objective cost/benefit analysis to be undertaken. Even if that evidence uncovers high costs associated with assessing impairments, this may not be sufficient cause to remove the information value of such efforts. Instead, as set out elsewhere, we believe the FASB should examine ways in which objective and continuous assessment of impairment could be simplified.

⁸ *Financial Reporting in the 1990s and Beyond*, published in 1993 by CFA Institute's predecessor organization, *Association for Investment Management and Research*, and no longer in print, notes that CFA Institute would prefer the early write-off of goodwill to the amortization of goodwill over an arbitrary long-term period such as 40 years as it reduces comparability without providing any economic relevance. The view was that the value of goodwill changed over time and the current value of goodwill had only a causal relationship with the future value. With the introduction on impairment testing and the greater use of fair value, CFA Institute saw the impairment testing as a means of assessing the value of the goodwill over time reflecting decreases in value as appropriate and, where justified, certain circumstances goodwill is not a wasting asset. The challenge – as we note above – is that the accounting standards setters implementation of the impairment testing is such that as an acquisition ages and is integrated into a reporting unit, the impairment testing of goodwill becomes a valuation of the reporting unit rather than the goodwill from the acquisition.

To that end, if FASB decides that a zero-information amortization approach needs to be substituted, the impact of this decision needs to be mitigated by way of the addition of a range of objective, quantified and company-specific disclosures that permit users to reach their own conclusions about acquisitions.

Managements should be providing their board of directors with assessments of the performance (value creation or destruction) of the acquisitions undertaken (i.e. especially since they now appear to be one of the most prevalent critical audit matters). ***Investors would like similar information to make their own assessments and are simply seeking the information management should be providing to its board of directors. As such, there should not be substantial additional cost with providing this information. If it is not available, investors should rightly question management and the board decision-making process in executing and evaluating acquisitions.***

Disclosures Regarding All Intangibles, Not Just Goodwill, Should Be Improved

In an era of continuous and increasingly inexpensive data flows, it is high time that careful research into ways that the acquisition intangibles black box can be opened up with the use of management-defined, objective KPIs about the expected measures that will allow an ongoing internal *and external* assessment of the success of specific acquisitions.

Further, as we note above, rather than moving away from the separate recognition and measurement of intangibles we believe the IASB, FASB and securities regulators should be considering disclosures of internally generated intangibles such that registration statements and financial statements better reflect company valuations and provide investors with insight into the value generating capabilities of the business. This is an important first step in disclosing intangibles within financial statements and possibly, someday, measuring them within financial statements.

To our mind, improved disclosures – and a survey on the cost of impairment testing – would provide investors (those who pay for impairment testing) and standard setters with more decision-useful information in evaluating the way forward on this issue. The magnitude of goodwill balances warrants careful consideration of the impact of a switch to amortization.

We would welcome an opportunity to meet with the project team and technical staff to discuss our comments and perspectives. If you or your staff have questions or seek further elaboration of our views, please contact Sandra J. Peters at sandra.peters@cfainstitute.org or 212.754.8350.

Sincerely,

/s/ Sandra J. Peters

Sandra J. Peters, CPA, CFA
Senior Head, Global Financial Reporting Policy
CFA Institute

cc: Sagar Teotia, Chief Accountant, Securities and Exchange Commission
Hans Hoogervorst, Chair, International Accounting Standards Board
Kathleen Casey, Chair, Financial Accounting Foundation

S&P 500 Companies
Goodwill Balances Greater Than 10 Years of 2018 Profits
December 31, 2018

Company	Ticker	Goodwill	Net Income	Years to Recoup
CVS Health Corp	CVS	\$78,678,000,000	(\$596,000,000)	No
Allergan plc	AGN	\$45,913,300,000	(\$5,086,200,000)	No
Kraft Heinz Co	KHC	\$36,503,000,000	(\$10,254,000,000)	No
General Electric Co	GE	\$33,974,000,000	(\$22,443,000,000)	No
Centurylink, Inc	CTL	\$28,031,000,000	(\$1,733,000,000)	No
Corteva, Inc.	CTVA	\$10,193,000,000	(\$5,018,000,000)	No
Western Digital Corp	WDC	\$10,076,000,000	(\$754,000,000)	No
Zimmer Biomet Holdings, Inc.	ZBH	\$9,594,400,000	(\$379,300,000)	No
TechnipFMC plc	FTI	\$7,607,600,000	(\$1,910,800,000)	No
Nielsen Holdings plc	NLSN	\$6,987,000,000	(\$700,000,000)	No
Qualcomm Inc	QCOM	\$6,498,000,000	(\$4,964,000,000)	No
National Oilwell Varco Inc	NOV	\$6,264,000,000	(\$22,000,000)	No
Coty Inc.	COTY	\$5,073,800,000	(\$3,769,600,000)	No
Newell Brands Inc.	NWL	\$3,692,900,000	(\$6,942,500,000)	No
Dentsply Sirona Inc.	XRAY	\$3,431,300,000	(\$1,010,900,000)	No
Hologic Inc	HOLX	\$2,533,200,000	(\$111,300,000)	No
Whirlpool Corp	WHR	\$2,451,000,000	(\$159,000,000)	No
Autodesk Inc	ADSK	\$2,450,800,000	(\$80,800,000)	No
Dollar Tree, Inc.	DLTR	\$2,296,600,000	(\$1,590,800,000)	No
Nisource Inc.	NI	\$1,690,700,000	(\$50,600,000)	No
Under Armour, Inc.	UA	\$546,494,000	(\$46,302,000)	No
Hess Corp	HES	\$360,000,000	(\$115,000,000)	No
Cisco Systems, Inc.	CSCO	\$31,706,000,000	\$110,000,000	288.24
NortonLifeLock Inc.	NLOK	\$2,677,000,000	\$31,000,000	86.35
Becton Dickinson & Co	BDX	\$23,600,000,000	\$311,000,000	75.88
Baker Hughes Co	BKR	\$20,717,000,000	\$283,000,000	73.20
American International Group Inc	AIG	\$4,082,000,000	\$61,000,000	66.92
Alexion Pharmaceuticals, Inc.	ALXN	\$5,037,400,000	\$77,600,000	64.91
Iqvia Holdings Inc.	IQV	\$11,800,000,000	\$284,000,000	41.55
Mckesson Corp	MCK	\$9,358,000,000	\$255,000,000	36.70
Perrigo Co plc	PRGO	\$3,979,800,000	\$131,000,000	30.38
Jacobs Engineering Group Inc	JEC	\$4,795,856,000	\$173,142,000	27.70
Mylan N.V.	MYL	\$9,747,800,000	\$352,500,000	27.65
Gartner Inc	IT	\$2,923,136,000	\$122,456,000	23.87
News Corp	NWS	\$5,147,000,000	\$228,000,000	22.57
Davita Inc.	DVA	\$6,841,960,000	\$333,040,000	20.54
Expedia Group, Inc.	EXPE	\$8,120,000,000	\$398,000,000	20.40
Charter Communications, Inc.	CHTR	\$29,554,000,000	\$1,506,000,000	19.62
Discovery, Inc.	DISCA	\$13,006,000,000	\$681,000,000	19.10
Berkshire Hathaway Inc	BRK	\$81,025,000,000	\$4,322,000,000	18.75
Microchip Technology Inc	MCHP	\$6,663,900,000	\$355,900,000	18.72
IHS Markit Ltd.	INFO	\$9,836,000,000	\$539,200,000	18.24
Cooper Companies, Inc.	COO	\$2,392,100,000	\$139,900,000	17.10
Conagra Brands Inc.	CAG	\$11,460,100,000	\$678,400,000	16.89
Cigna Corp	CI	\$44,505,000,000	\$2,646,000,000	16.82
Qorvo, Inc.	QRVO	\$2,173,889,000	\$133,125,000	16.33
International Flavors & Fragrances Inc	IFF	\$5,378,388,000	\$339,781,000	15.83
Fidelity National Information Services, Inc.	FIS	\$13,545,000,000	\$881,000,000	15.37
Crown Castle International Corp	CCI	\$10,078,000,000	\$671,000,000	15.02
Campbell Soup Co	CPB	\$3,864,000,000	\$261,000,000	14.80
Stanley Black & Decker, Inc.	SWK	\$8,956,700,000	\$605,800,000	14.78
Willis Towers Watson Plc	WLTW	\$10,465,000,000	\$715,000,000	14.64
Nasdaq, Inc.	NDAQ	\$6,363,000,000	\$458,000,000	13.89
Equifax Inc	EFX	\$4,129,700,000	\$306,300,000	13.48
Equinix Inc	EQIX	\$4,836,388,000	\$365,359,000	13.24
Global Payments Inc	GPN	\$6,341,355,000	\$484,667,000	13.08
Fedex Corp	FDX	\$6,884,000,000	\$540,000,000	12.75
Digital Realty Trust, Inc.	DLR	\$4,348,007,000	\$341,115,000	12.75
PerkinElmer Inc	PKI	\$2,952,608,000	\$237,927,000	12.41
J M Smucker Co	SJM	\$6,310,900,000	\$514,400,000	12.27
Iron Mountain Inc	IRM	\$4,441,030,000	\$364,549,000	12.18
Salesforce.Com, Inc.	CRM	\$12,851,000,000	\$1,110,000,000	11.58
Schlumberger Limited	SLB	\$24,931,000,000	\$2,177,000,000	11.45
Kinder Morgan, Inc.	KMI	\$21,965,000,000	\$1,919,000,000	11.45
Teleflex Inc	TFX	\$2,246,579,000	\$200,802,000	11.19
Republic Services, Inc.	RSG	\$11,400,100,000	\$1,037,600,000	10.99
Xerox Holdings Corp	XRX	\$3,867,000,000	\$374,000,000	10.34
Procter & Gamble Co	PG	\$40,273,000,000	\$3,966,000,000	10.15
Sealed Air Corp	SEE	\$1,947,600,000	\$193,100,000	10.09

S&P 500 Companies
Goodwill Balances Greater Than Stockholders Equity
December 31, 2018

Company	Ticker	Goodwill	Stockholders Equity	Equity Minus Goodwill
AbbVie Inc.	ABBV	\$15,663,000,000	(\$8,446,000,000)	(\$24,109,000,000)
Oracle Corp	ORCL	\$43,779,000,000	\$22,363,000,000	(\$21,416,000,000)
CVS HEALTH Corp	CVS	\$78,678,000,000	\$58,721,000,000	(\$19,957,000,000)
International Business Machines Corp	IBM	\$36,265,000,000	\$16,929,000,000	(\$19,336,000,000)
Philip Morris International Inc.	PM	\$7,189,000,000	(\$10,739,000,000)	(\$17,928,000,000)
Northrop Grumman Corp	NOC	\$18,672,000,000	\$8,187,000,000	(\$10,485,000,000)
Lockheed Martin Corp	LMT	\$10,769,000,000	\$1,449,000,000	(\$9,320,000,000)
Mcdonalds Corp	MCD	\$2,331,500,000	(\$6,258,400,000)	(\$8,589,900,000)
Centurylink, Inc	CTL	\$28,031,000,000	\$19,828,000,000	(\$8,203,000,000)
TransDigm Group INC	TDG	\$6,223,290,000	(\$1,808,471,000)	(\$8,031,761,000)
General Dynamics Corp	GD	\$19,594,000,000	\$11,732,000,000	(\$7,862,000,000)
United Technologies Corp	UTX	\$48,112,000,000	\$40,610,000,000	(\$7,502,000,000)
Boeing Co	BA	\$7,840,000,000	\$410,000,000	(\$7,430,000,000)
General Mills Inc	GIS	\$13,995,800,000	\$7,367,700,000	(\$6,628,100,000)
Omnicom Group Inc.	OMC	\$9,384,300,000	\$3,106,900,000	(\$6,277,400,000)
Qualcomm Inc	QCOM	\$6,498,000,000	\$807,000,000	(\$5,691,000,000)
Firstenergy Corp	FE	\$5,618,000,000	\$41,000,000	(\$5,577,000,000)
Iqvia Holdings Inc.	IQV	\$11,800,000,000	\$6,954,000,000	(\$4,846,000,000)
Hilton Worldwide Holdings Inc.	HLT	\$5,160,000,000	\$558,000,000	(\$4,602,000,000)
Unitedhealth Group Inc	UNH	\$58,910,000,000	\$54,319,000,000	(\$4,591,000,000)
American Airlines Group Inc.	AAL	\$4,091,000,000	(\$169,000,000)	(\$4,260,000,000)
Viacom Inc.	VIA	\$11,609,000,000	\$7,465,000,000	(\$4,144,000,000)
Home Depot, Inc.	HD	\$2,252,000,000	(\$1,878,000,000)	(\$4,130,000,000)
Conagra Brands Inc.	CAG	\$11,460,100,000	\$7,463,700,000	(\$3,996,400,000)
Aon plc	AON	\$8,171,000,000	\$4,219,000,000	(\$3,952,000,000)
Nielsen Holdings plc	NLSN	\$6,987,000,000	\$3,043,000,000	(\$3,944,000,000)
Amerisourcebergen Corp	ABC	\$6,664,272,000	\$3,049,961,000	(\$3,614,311,000)
Republic Services, Inc.	RSG	\$11,400,100,000	\$7,929,500,000	(\$3,470,600,000)
Cigna Corp	CI	\$44,505,000,000	\$41,035,000,000	(\$3,470,000,000)
Fiserv Inc	FISV	\$5,702,000,000	\$2,293,000,000	(\$3,409,000,000)
Raytheon Co	RTN	\$14,864,000,000	\$11,472,000,000	(\$3,392,000,000)
Fidelity National Information Services, Inc.	FIS	\$13,545,000,000	\$10,222,000,000	(\$3,323,000,000)
Sherwin Williams Co	SHW	\$6,956,702,000	\$3,730,745,000	(\$3,225,957,000)
Moodys Corp	MCO	\$3,781,300,000	\$656,500,000	(\$3,124,800,000)
Western Union Co	WU	\$2,725,000,000	(\$309,800,000)	(\$3,034,800,000)
Davita Inc.	DVA	\$6,841,960,000	\$3,908,398,000	(\$2,933,562,000)
Discovery, Inc.	DISCA	\$13,006,000,000	\$10,102,000,000	(\$2,904,000,000)
Kellogg Co	K	\$6,050,000,000	\$3,159,000,000	(\$2,891,000,000)
S&P Global Inc.	SPGI	\$3,535,000,000	\$684,000,000	(\$2,851,000,000)
Motorola Solutions, Inc.	MSI	\$1,514,000,000	(\$1,276,000,000)	(\$2,790,000,000)
Autodesk Inc	ADSK	\$2,450,800,000	(\$210,900,000)	(\$2,661,700,000)
Becton Dickinson & Co	BDX	\$23,600,000,000	\$20,994,000,000	(\$2,606,000,000)
Iron Mountain Inc	IRM	\$4,441,030,000	\$1,862,463,000	(\$2,578,567,000)
Campbell Soup Co	CPB	\$3,864,000,000	\$1,373,000,000	(\$2,491,000,000)
Expedia Group, Inc.	EXPE	\$8,120,000,000	\$5,651,000,000	(\$2,469,000,000)
Interpublic Group Of Companies, Inc.	IPG	\$4,875,900,000	\$2,432,800,000	(\$2,443,100,000)
Starbucks Corp	SBUX	\$3,541,600,000	\$1,175,800,000	(\$2,365,800,000)
Colgate Palmolive Co	CL	\$2,530,000,000	\$197,000,000	(\$2,333,000,000)
Sealed Air Corp	SEE	\$1,947,600,000	(\$348,600,000)	(\$2,296,200,000)
L Brands, Inc.	LB	\$1,348,000,000	(\$865,000,000)	(\$2,213,000,000)
Amgen Inc	AMGN	\$14,699,000,000	\$12,500,000,000	(\$2,199,000,000)
Global Payments Inc	GPN	\$6,341,355,000	\$4,186,343,000	(\$2,155,012,000)
Cbs Corp	CBS	\$4,920,000,000	\$2,804,000,000	(\$2,116,000,000)
Gartner Inc	IT	\$2,923,136,000	\$850,757,000	(\$2,072,379,000)
Cardinal Health Inc	CAH	\$8,378,000,000	\$6,330,000,000	(\$2,048,000,000)
Marsh & McLennan Companies, Inc.	MMC	\$9,599,000,000	\$7,584,000,000	(\$2,015,000,000)

S&P 500 Companies
Goodwill Balances Greater Than Stockholders Equity
December 31, 2018

Company	Ticker	Goodwill	Stockholders Equity	Equity Minus Goodwill
L3harris Technologies, Inc.	LHX	\$5,340,000,000	\$3,363,000,000	(\$1,977,000,000)
Celgene Corp	CELG	\$8,003,000,000	\$6,161,000,000	(\$1,842,000,000)
Autozone Inc	AZO	\$302,645,000	(\$1,520,355,000)	(\$1,823,000,000)
IHS Markit Ltd.	INFO	\$9,836,000,000	\$8,020,500,000	(\$1,815,500,000)
Nrg Energy, Inc.	NRG	\$573,000,000	(\$1,234,000,000)	(\$1,807,000,000)
MSCI Inc.	MSCI	\$1,545,761,000	(\$166,494,000)	(\$1,712,255,000)
United Rentals, Inc.	URI	\$5,058,000,000	\$3,403,000,000	(\$1,655,000,000)
Roper Technologies Inc	ROP	\$9,346,800,000	\$7,738,500,000	(\$1,608,300,000)
Leidos Holdings, Inc.	LDOS	\$4,860,000,000	\$3,311,000,000	(\$1,549,000,000)
Kimberly Clark Corp	KMB	\$1,474,000,000	(\$46,000,000)	(\$1,520,000,000)
CDW Corp	CDW	\$2,462,800,000	\$975,200,000	(\$1,487,600,000)
Verisign Inc	VRSN	\$52,527,000	(\$1,385,474,000)	(\$1,438,001,000)
Sysco Corp	SYU	\$3,896,226,000	\$2,502,603,000	(\$1,393,623,000)
Microchip Technology Inc	MCHP	\$6,663,900,000	\$5,287,500,000	(\$1,376,400,000)
Illinois Tool Works Inc	ITW	\$4,633,000,000	\$3,258,000,000	(\$1,375,000,000)
Mccormick & Co Inc	MKC	\$4,527,900,000	\$3,182,200,000	(\$1,345,700,000)
Quest Diagnostics Inc	DGX	\$6,563,000,000	\$5,267,000,000	(\$1,296,000,000)
Verisk Analytics, Inc.	VRSK	\$3,361,500,000	\$2,070,600,000	(\$1,290,900,000)
Citrix Systems Inc	CTXS	\$1,802,670,000	\$551,519,000	(\$1,251,151,000)
Adobe Inc.	ADBE	\$10,581,048,000	\$9,362,114,000	(\$1,218,934,000)
Fleetcor Technologies Inc	FLT	\$4,542,074,000	\$3,340,180,000	(\$1,201,894,000)
Stanley Black & Decker, Inc.	SWK	\$8,956,700,000	\$7,839,900,000	(\$1,116,800,000)
Mckesson Corp	MCK	\$9,358,000,000	\$8,287,000,000	(\$1,071,000,000)
Clorox Co	CLX	\$1,591,000,000	\$559,000,000	(\$1,032,000,000)
Hp Inc	HPQ	\$375,000,000	(\$639,000,000)	(\$1,014,000,000)
Analog Devices Inc	ADI	\$12,252,604,000	\$11,268,173,000	(\$984,431,000)
Equifax Inc	EFX	\$4,129,700,000	\$3,155,700,000	(\$974,000,000)
Nasdaq, Inc.	NDAQ	\$6,363,000,000	\$5,449,000,000	(\$914,000,000)
BALL Corp	BLL	\$4,475,000,000	\$3,562,000,000	(\$913,000,000)
DOVER Corp	DOV	\$3,677,328,000	\$2,768,666,000	(\$908,662,000)
Yum Brands Inc	YUM	\$525,000,000	(\$334,000,000)	(\$859,000,000)
United Parcel Service Inc	UPS	\$3,811,000,000	\$3,037,000,000	(\$774,000,000)
NetApp, Inc.	NTAP	\$1,735,000,000	\$1,090,000,000	(\$645,000,000)
Masco Corp	MAS	\$692,000,000	\$69,000,000	(\$623,000,000)
Willis Towers Watson Plc	WLTW	\$10,465,000,000	\$9,971,000,000	(\$494,000,000)
Coty Inc.	COTY	\$5,073,800,000	\$4,592,700,000	(\$481,100,000)
O Reilly Automotive Inc	ORLY	\$807,260,000	\$353,667,000	(\$453,593,000)
Hershey Co	HSY	\$1,801,103,000	\$1,407,266,000	(\$393,837,000)
Laboratory Corp Of America Holdings	LH	\$7,360,300,000	\$6,971,400,000	(\$388,900,000)
Broadridge Financial Solutions, Inc.	BR	\$1,500,000,000	\$1,127,500,000	(\$372,500,000)
Perkinelmer Inc	PKI	\$2,952,608,000	\$2,584,955,000	(\$367,653,000)
Zoetis Inc.	ZTS	\$2,519,000,000	\$2,185,000,000	(\$334,000,000)
Hanesbrands Inc.	HBI	\$1,241,727,000	\$970,283,000	(\$271,444,000)
Broadcom Inc.	AVGO	\$26,913,000,000	\$26,657,000,000	(\$256,000,000)
Pentair plc	PNR	\$2,072,700,000	\$1,836,100,000	(\$236,600,000)
Allegion plc	ALLE	\$883,000,000	\$654,000,000	(\$229,000,000)
Idexx Laboratories Inc	IDXX	\$214,489,000	(\$9,233,000)	(\$223,722,000)
Lamb Weston Holdings, Inc.	LW	\$205,900,000	(\$4,600,000)	(\$210,500,000)
Pepsico Inc	PEP	\$14,808,000,000	\$14,602,000,000	(\$206,000,000)
3M Co	MMM	\$10,051,000,000	\$9,848,000,000	(\$203,000,000)
Xylem Inc.	XYL	\$2,976,000,000	\$2,782,000,000	(\$194,000,000)
Waste Management Inc	WM	\$6,430,000,000	\$6,276,000,000	(\$154,000,000)
Western Digital Corp	WDC	\$10,076,000,000	\$9,967,000,000	(\$109,000,000)
Hologic Inc	HOLX	\$2,533,200,000	\$2,428,800,000	(\$104,400,000)
Arthur J. Gallagher & Co.	AJG	\$4,625,600,000	\$4,569,700,000	(\$55,900,000)
Amphenol Corp	APH	\$4,103,200,000	\$4,064,200,000	(\$39,000,000)
		\$996,732,815,000	\$632,836,166,000	(\$363,896,649,000)

S&P 500 Companies
Goodwill Balances Greater Than Stockholders Equity
Years to Recoup Equity Minus Goodwill Balances
December 31, 2018

Appendix C

Company	Ticker	Goodwill	Stockholders Equity	Equity Minus Goodwill	Net Income	Years to Recoup	Recoup?
AbbVie Inc.	ABBV	\$15,663,000,000	(\$8,446,000,000)	(\$24,109,000,000)	\$5,687,000,000	4.24	
Oracle Corp	ORCL	\$43,779,000,000	\$22,363,000,000	(\$21,416,000,000)	\$11,083,000,000	1.93	
CVS HEALTH Corp	CVS	\$78,678,000,000	\$58,721,000,000	(\$19,957,000,000)	(\$596,000,000)	1,000.00	No
International Business Machines Corp	IBM	\$36,265,000,000	\$16,929,000,000	(\$19,336,000,000)	\$8,728,000,000	2.22	
Philip Morris International Inc.	PM	\$7,189,000,000	(\$10,739,000,000)	(\$17,928,000,000)	\$8,286,000,000	2.16	
Northrop Grumman Corp /DE/	NOC	\$18,672,000,000	\$8,187,000,000	(\$10,485,000,000)	\$3,229,000,000	3.25	
Lockheed Martin Corp	LMT	\$10,769,000,000	\$1,449,000,000	(\$9,320,000,000)	\$5,046,000,000	1.85	
Mcdonalds Corp	MCD	\$2,331,500,000	(\$6,258,400,000)	(\$8,589,900,000)	\$5,924,300,000	1.45	
Centurylink, Inc	CTL	\$28,031,000,000	\$19,828,000,000	(\$8,203,000,000)	(\$1,733,000,000)	1,000.00	No
TransDigm Group INC	TDG	\$6,223,290,000	(\$1,808,471,000)	(\$8,031,761,000)	\$957,062,000	8.39	
General Dynamics Corp	GD	\$19,594,000,000	\$11,732,000,000	(\$7,862,000,000)	\$3,345,000,000	2.35	
United Technologies Corp /DE/	UTX	\$48,112,000,000	\$40,610,000,000	(\$7,502,000,000)	\$5,269,000,000	1.42	
Boeing Co	BA	\$7,840,000,000	\$410,000,000	(\$7,430,000,000)	\$10,460,000,000	0.71	
General Mills Inc	GIS	\$13,995,800,000	\$7,367,700,000	(\$6,628,100,000)	\$1,786,200,000	3.71	
Omnicom Group Inc.	OMC	\$9,384,300,000	\$3,106,900,000	(\$6,277,400,000)	\$1,440,500,000	4.36	
Qualcomm Inc/DE	QCOM	\$6,498,000,000	\$807,000,000	(\$5,691,000,000)	(\$4,964,000,000)	1,000.00	No
Firstenergy Corp	FE	\$5,618,000,000	\$41,000,000	(\$5,577,000,000)	\$1,348,000,000	4.14	
Iqvia Holdings Inc.	IQV	\$11,800,000,000	\$6,954,000,000	(\$4,846,000,000)	\$284,000,000	17.06	No
Hilton Worldwide Holdings Inc.	HLT	\$5,160,000,000	\$558,000,000	(\$4,602,000,000)	\$769,000,000	5.98	
Unitedhealth Group Inc	UNH	\$58,910,000,000	\$54,319,000,000	(\$4,591,000,000)	\$12,382,000,000	0.37	
American Airlines Group Inc.	AAL	\$4,091,000,000	(\$169,000,000)	(\$4,260,000,000)	\$1,412,000,000	3.02	
Viacom Inc.	VIA	\$11,609,000,000	\$7,465,000,000	(\$4,144,000,000)	\$1,759,000,000	2.36	
Home Depot, Inc.	HD	\$2,252,000,000	(\$1,878,000,000)	(\$4,130,000,000)	\$11,121,000,000	0.37	
Conagra Brands Inc.	CAG	\$11,460,100,000	\$7,463,700,000	(\$3,996,400,000)	\$678,400,000	5.89	
Aon plc	AON	\$8,171,000,000	\$4,219,000,000	(\$3,952,000,000)	\$1,174,000,000	3.37	
Nielsen Holdings plc	NLSN	\$6,987,000,000	\$3,043,000,000	(\$3,944,000,000)	(\$700,000,000)	1,000.00	No
Amerisourcebergen Corp	ABC	\$6,664,272,000	\$3,049,961,000	(\$3,614,311,000)	\$1,615,892,000	2.24	
Republic Services, Inc.	RSG	\$11,400,100,000	\$7,929,500,000	(\$3,470,600,000)	\$1,037,600,000	3.34	
Cigna Corp	CI	\$44,505,000,000	\$41,035,000,000	(\$3,470,000,000)	\$2,646,000,000	1.31	
Fiserv Inc	FISV	\$5,702,000,000	\$2,293,000,000	(\$3,409,000,000)	\$1,187,000,000	2.87	
Raytheon Co/	RTN	\$14,864,000,000	\$11,472,000,000	(\$3,392,000,000)	\$2,882,000,000	1.18	
Fidelity National Information Services, Inc.	FIS	\$13,545,000,000	\$10,222,000,000	(\$3,323,000,000)	\$881,000,000	3.77	
Sherwin Williams Co	SHW	\$6,956,702,000	\$3,730,745,000	(\$3,225,957,000)	\$1,108,746,000	2.91	
Moodys Corp /DE/	MCO	\$3,781,300,000	\$656,500,000	(\$3,124,800,000)	\$1,319,400,000	2.37	
Western Union CO	WU	\$2,725,000,000	(\$309,800,000)	(\$3,034,800,000)	\$851,900,000	3.56	
Davita Inc.	DVA	\$6,841,960,000	\$3,908,398,000	(\$2,933,562,000)	\$333,040,000	8.81	
Discovery, Inc.	DISCA	\$13,006,000,000	\$10,102,000,000	(\$2,904,000,000)	\$681,000,000	4.26	
Kellogg Co	K	\$6,050,000,000	\$3,159,000,000	(\$2,891,000,000)	\$1,344,000,000	2.15	
S&P Global Inc.	SPGI	\$3,535,000,000	\$684,000,000	(\$2,851,000,000)	\$2,121,000,000	1.34	
Motorola Solutions, Inc.	MSI	\$1,514,000,000	(\$1,276,000,000)	(\$2,790,000,000)	\$969,000,000	2.88	
Autodesk Inc	ADSK	\$2,450,800,000	(\$210,900,000)	(\$2,661,700,000)	(\$80,800,000)	1,000.00	No
Becton Dickinson & Co	BDX	\$23,600,000,000	\$20,994,000,000	(\$2,606,000,000)	\$311,000,000	8.38	
Iron Mountain Inc	IRM	\$4,441,030,000	\$1,862,463,000	(\$2,578,567,000)	\$364,549,000	7.07	
Campbell Soup Co	CPB	\$3,864,000,000	\$1,373,000,000	(\$2,491,000,000)	\$261,000,000	9.54	
Expedia Group, Inc.	EXPE	\$8,120,000,000	\$5,651,000,000	(\$2,469,000,000)	\$398,000,000	6.20	
Interpublic Group Of Companies, Inc.	IPG	\$4,875,900,000	\$2,432,800,000	(\$2,443,100,000)	\$637,700,000	3.83	
Starbucks Corp	SBUX	\$3,541,600,000	\$1,175,800,000	(\$2,365,800,000)	\$4,518,000,000	0.52	
Colgate Palmolive Co	CL	\$2,530,000,000	\$197,000,000	(\$2,333,000,000)	\$2,558,000,000	0.91	
Sealed Air Corp/DE	SEE	\$1,947,600,000	(\$348,600,000)	(\$2,296,200,000)	\$193,100,000	11.89	No
L Brands, Inc.	LB	\$1,348,000,000	(\$865,000,000)	(\$2,213,000,000)	\$644,000,000	3.44	
Amgen Inc	AMGN	\$14,699,000,000	\$12,500,000,000	(\$2,199,000,000)	\$8,394,000,000	0.26	
Global Payments Inc	GPN	\$6,341,355,000	\$4,186,343,000	(\$2,155,012,000)	\$484,667,000	4.45	
Cbs Corp	CBS	\$4,920,000,000	\$2,804,000,000	(\$2,116,000,000)	\$1,960,000,000	1.08	
Gartner Inc	IT	\$2,923,136,000	\$850,757,000	(\$2,072,379,000)	\$122,456,000	16.92	No
Cardinal Health Inc	CAH	\$8,378,000,000	\$6,330,000,000	(\$2,048,000,000)	\$1,365,000,000	1.50	
Marsh & McLennan Companies, Inc.	MMC	\$9,599,000,000	\$7,584,000,000	(\$2,015,000,000)	\$1,670,000,000	1.21	

S&P 500 Companies
Goodwill Balances Greater Than Stockholders Equity
Years to Recoup Equity Minus Goodwill Balances
December 31, 2018

Company	Ticker	Goodwill	Stockholders Equity	Equity Minus Goodwill	Net Income	Years to Recoup	Recoup?
L3harris Technologies, Inc.	LHX	\$5,340,000,000	\$3,363,000,000	(\$1,977,000,000)	\$949,000,000	2.08	
Celgene Corp	CELG	\$8,003,000,000	\$6,161,000,000	(\$1,842,000,000)	\$4,046,000,000	0.46	
Autozone Inc	AZO	\$302,645,000	(\$1,520,355,000)	(\$1,823,000,000)	\$1,337,536,000	1.36	
IHS Markit Ltd.	INFO	\$9,836,000,000	\$8,020,500,000	(\$1,815,500,000)	\$539,200,000	3.37	
Nrg Energy, Inc.	NRG	\$573,000,000	(\$1,234,000,000)	(\$1,807,000,000)	\$268,000,000	6.74	
MSCI Inc.	MSCI	\$1,545,761,000	(\$166,494,000)	(\$1,712,255,000)	\$507,885,000	3.37	
United Rentals, Inc.	URI	\$5,058,000,000	\$3,403,000,000	(\$1,655,000,000)	\$1,096,000,000	1.51	
Roper Technologies Inc	ROP	\$9,346,800,000	\$7,738,500,000	(\$1,608,300,000)	\$944,400,000	1.70	
Leidos Holdings, Inc.	LDOS	\$4,860,000,000	\$3,311,000,000	(\$1,549,000,000)	\$582,000,000	2.66	
Kimberly Clark Corp	KMB	\$1,474,000,000	(\$46,000,000)	(\$1,520,000,000)	\$1,445,000,000	1.05	
CDW Corp	CDW	\$2,462,800,000	\$975,200,000	(\$1,487,600,000)	\$643,000,000	2.31	
Verisign Inc	VRSN	\$52,527,000	(\$1,385,474,000)	(\$1,438,001,000)	\$582,489,000	2.47	
Sysco Corp	SYYY	\$3,896,226,000	\$2,502,603,000	(\$1,393,623,000)	\$1,674,271,000	0.83	
Microchip Technology Inc	MCHP	\$6,663,900,000	\$5,287,500,000	(\$1,376,400,000)	\$355,900,000	3.87	
Illinois Tool Works Inc	ITW	\$4,633,000,000	\$3,258,000,000	(\$1,375,000,000)	\$2,563,000,000	0.54	
Mccormick & Co Inc	MKC	\$4,527,900,000	\$3,182,200,000	(\$1,345,700,000)	\$933,400,000	1.44	
Quest Diagnostics Inc	DGX	\$6,563,000,000	\$5,267,000,000	(\$1,296,000,000)	\$788,000,000	1.64	
Verisk Analytics, Inc.	VRSK	\$3,361,500,000	\$2,070,600,000	(\$1,290,900,000)	\$598,700,000	2.16	
Citrix Systems Inc	CTXS	\$1,802,670,000	\$551,519,000	(\$1,251,151,000)	\$575,667,000	2.17	
Adobe Inc.	ADBE	\$10,581,048,000	\$9,362,114,000	(\$1,218,934,000)	\$2,590,774,000	0.47	
Fleetcor Technologies Inc	FLT	\$4,542,074,000	\$3,340,180,000	(\$1,201,894,000)	\$811,483,000	1.48	
Stanley Black & Decker, Inc.	SWK	\$8,956,700,000	\$7,839,900,000	(\$1,116,800,000)	\$605,800,000	1.84	
Mckesson Corp	MCK	\$9,358,000,000	\$8,287,000,000	(\$1,071,000,000)	\$255,000,000	4.20	
Clorox Co	CLX	\$1,591,000,000	\$559,000,000	(\$1,032,000,000)	\$820,000,000	1.26	
Hp Inc	HPQ	\$375,000,000	(\$639,000,000)	(\$1,014,000,000)	\$5,327,000,000	0.19	
Analog Devices Inc	ADI	\$12,252,604,000	\$11,268,173,000	(\$984,431,000)	\$1,495,432,000	0.66	
Equifax Inc	EFX	\$4,129,700,000	\$3,155,700,000	(\$974,000,000)	\$306,300,000	3.18	
Nasdaq, Inc.	NDAQ	\$6,363,000,000	\$5,449,000,000	(\$914,000,000)	\$458,000,000	2.00	
Ball Corp	BLL	\$4,475,000,000	\$3,562,000,000	(\$913,000,000)	\$453,000,000	2.02	
Dover Corp	DOV	\$3,677,328,000	\$2,768,666,000	(\$908,662,000)	\$570,267,000	1.59	
Yum Brands Inc	YUM	\$525,000,000	(\$334,000,000)	(\$859,000,000)	\$1,542,000,000	0.56	
United Parcel Service Inc	UPS	\$3,811,000,000	\$3,037,000,000	(\$774,000,000)	\$4,791,000,000	0.16	
NetApp, Inc.	NTAP	\$1,735,000,000	\$1,090,000,000	(\$645,000,000)	\$1,169,000,000	0.55	
Masco Corp	MAS	\$692,000,000	\$69,000,000	(\$623,000,000)	\$784,000,000	0.79	
Willis Towers Watson Plc	WLTW	\$10,465,000,000	\$9,971,000,000	(\$494,000,000)	\$715,000,000	0.69	
Coty Inc.	COTY	\$5,073,800,000	\$4,592,700,000	(\$481,100,000)	(\$3,769,600,000)	No	No
O Reilly Automotive Inc	ORLY	\$807,260,000	\$353,667,000	(\$453,593,000)	\$1,324,487,000	0.34	
Hershey Co	HSY	\$1,801,103,000	\$1,407,266,000	(\$393,837,000)	\$1,171,051,000	0.34	
Laboratory Corp Of America Holdings	LH	\$7,360,300,000	\$6,971,400,000	(\$388,900,000)	\$883,900,000	0.44	
Broadridge Financial Solutions, Inc.	BR	\$1,500,000,000	\$1,127,500,000	(\$372,500,000)	\$482,100,000	0.77	
Perkinelmer Inc	PKI	\$2,952,608,000	\$2,584,955,000	(\$367,653,000)	\$237,927,000	1.55	
Zoetis Inc.	ZTS	\$2,519,000,000	\$2,185,000,000	(\$334,000,000)	\$1,424,000,000	0.23	
Hanesbrands Inc.	HBI	\$1,241,727,000	\$970,283,000	(\$271,444,000)	\$553,084,000	0.49	
Broadcom Inc.	AVGO	\$26,913,000,000	\$26,657,000,000	(\$256,000,000)	\$12,610,000,000	0.02	
PENTAIR plc	PNR	\$2,072,700,000	\$1,836,100,000	(\$236,600,000)	\$347,400,000	0.68	
Allegion plc	ALLE	\$883,000,000	\$654,000,000	(\$229,000,000)	\$435,400,000	0.53	
Idexx Laboratories Inc	IDXX	\$214,489,000	(\$9,233,000)	(\$223,722,000)	\$377,047,000	0.59	
Lamb Weston Holdings, Inc.	LW	\$205,900,000	(\$4,600,000)	(\$210,500,000)	\$487,200,000	0.43	
Pepsico Inc	PEP	\$14,808,000,000	\$14,602,000,000	(\$206,000,000)	\$12,559,000,000	0.02	
3M Co	MMM	\$10,051,000,000	\$9,848,000,000	(\$203,000,000)	\$5,363,000,000	0.04	
Xylem Inc.	XYL	\$2,976,000,000	\$2,782,000,000	(\$194,000,000)	\$549,000,000	0.35	
Waste Management Inc	WM	\$6,430,000,000	\$6,276,000,000	(\$154,000,000)	\$1,923,000,000	0.08	
Western Digital Corp	WDC	\$10,076,000,000	\$9,967,000,000	(\$109,000,000)	(\$754,000,000)	No	No
Hologic Inc	HOLX	\$2,533,200,000	\$2,428,800,000	(\$104,400,000)	(\$111,300,000)	No	No
Arthur J. Gallagher & Co.	AJG	\$4,625,600,000	\$4,569,700,000	(\$55,900,000)	\$675,900,000	0.08	
Amphenol Corp	APH	\$4,103,200,000	\$4,064,200,000	(\$39,000,000)	\$1,216,900,000	0.03	