



2021 U.S. Goodwill Impairment Study

March 2022



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Introduction

The Valuation Advisory Services business of Kroll is pleased to present the 2021 U.S. Goodwill Impairment Study (the “2021 Study”), now in its 13th year of publication. The 2021 Study examines general and industry goodwill impairment (GWI) trends through December 2020 of over 8,900 publicly traded companies incorporated in the U.S.

Our inaugural study was launched in 2009 and focused on the 2007-2008 calendar years, which enabled us to capture goodwill impairments recorded by U.S.-based companies and industries at the onset of the global financial crisis of 2008-2009. We find ourselves again in a period of significant upheaval, with companies forced to navigate the global economic crisis created by the COVID-19 outbreak.

Goodwill and impairment continue to be topics of interest to standard setters and stakeholders. Both the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) have current projects addressing goodwill and impairment. More developments in this area are expected in 2022.

Robust and timely information is a critical foundation for investors' decision-making, also benefiting the smooth functioning of global capital markets and effective market oversight. Once again, this basic principle and the need for transparency are pushed to the forefront in a time of disruption. Outside the global financial crisis of 2008-2009 and the ensuing European sovereign debt crisis, there has not been a time where information about GWI has been more important than in the current environment.

The impairment levels recorded in 2020 demonstrate that the changes in the outlook for many companies that carry goodwill—precipitated by changes in the magnitude and timing of expected cash flows and associated risk—often lead to GWI, as intended by the current goodwill impairment-only model.

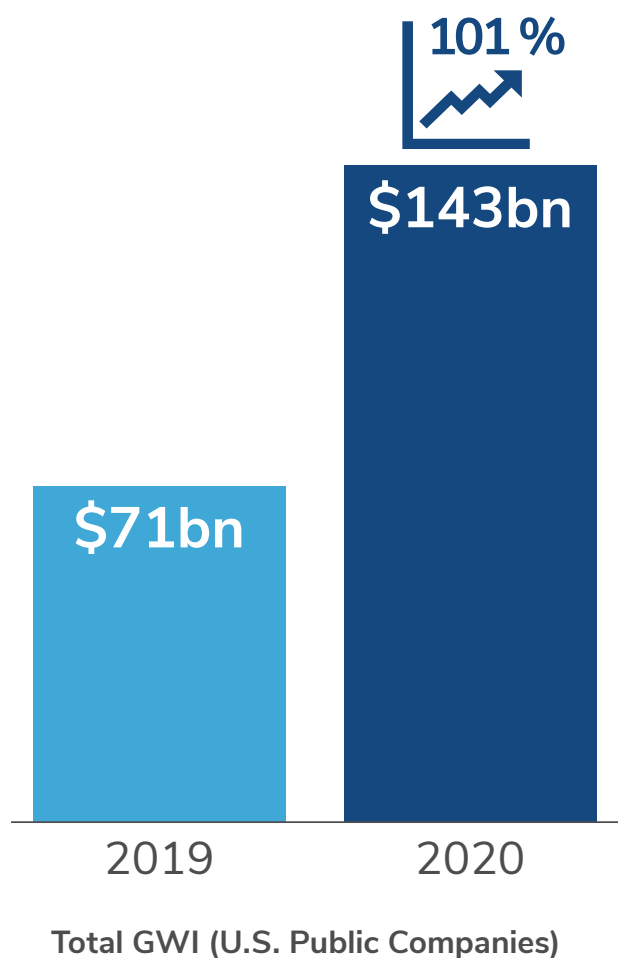
This year's edition also looks at the largest 30 impairments recorded during 2020, with a special focus on identifying whether each company recorded an impairment charge (i) as part of its annual impairment test, (ii) due to one or more triggering events necessitating the performance of an interim impairment test, or (iii) both. As an additional feature this year, we provide information on the segment and reporting unit structure of these 30 companies to the extent that such information was disclosed in the financial statements. Specifically, we identify for each company the number of (1) reportable segments, (2) operating segments, (3) reporting units, and (4) reporting units that have a goodwill balance allocated to them.

Finally, this study also aggregates the GWI taken by U.S.-based companies up to the time of writing for calendar year 2021,* which demonstrates the extraordinary pace at which many companies and industries recovered from the recession created by the COVID-19 outbreak.

* Information collected through February 28, 2022.

Highlights of the 2021 Study

Total GWI recorded by U.S. public companies more than doubled in 2020, from \$71.0 billion (bn) in 2019 to **\$142.5 bn in 2020**, but this still fell short of the level observed in 2008 (\$188.4 bn) at the onset of the global financial crisis of 2008-2009.* The COVID-19 outbreak led to the worst global economic recession since World War II. Most major economies saw sizable contractions in 2020, with real GDP declining by 3.4% in the U.S., far exceeding the drop observed in 2009.



Nonetheless, the economic recession was much less severe in the U.S. than in other major economies (with the exception of China), thanks to the swift actions by the Federal Reserve (the U.S. central bank) and the U.S. government, which together provided unprecedented levels of monetary and fiscal support. These actions combined were a major factor in COVID-19 becoming the shortest economic recession in U.S. history, at just two months.†

As a result, the S&P 500 Index ended 2020 with an impressive price gain of 16%, after having collapsed by 31% through March 23, at the height of the COVID-19 crisis. The stock market index recovered 68% from its low point in March 2020. This enabled many businesses to bounce back from the plunge in economic activity related to lockdowns and therefore limited the magnitude of GWI that otherwise would have been observed.

The number of GWI events increased by 45%, from 318 in 2019 to 462 in 2020, but were still below the number recorded in 2008 (502). The size of impairments became larger, with the average GWI per event rising by 38% in 2020 to \$308 million (mn), the second highest level since the record in 2008 of \$375 mn.

As expected, M&A activity by U.S. publicly traded companies saw deal value drop significantly (by 16%) in 2020 relative to that of 2019, although deal volume was less impacted by the pandemic, falling just 6%. However, almost 65% of deal value and 35% of deal volume were linked to transactions announced prior to March 2020, before COVID-19 was declared a pandemic. This resulted in \$277 bn of goodwill being added to U.S. public companies' balance sheets in 2020, the lowest amount in five years. In contrast, preliminary results for 2021 M&A activity by U.S. acquirers indicate a strong rebound, with the number of closed deals in 2021 nearly matching the highest level in the study's records (statistics begin in 2008).‡

*The 2021 Study only captures companies that are incorporated in the U.S. Therefore, certain companies that are incorporated outside of the U.S. are excluded from our analyses, even if they are viewed as U.S. companies by financial markets. If such companies were included, total GWI would, at a minimum, increase by Schlumberger's \$8.8 bn impairment in 2019 and \$3.1 bn in 2020, leading to an aggregate \$79.9 bn and \$145.6 bn in each year, respectively.

† "Business Cycle Dating Committee Announcement," National Bureau of Economic Research, July 19, 2021.

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

From an industry standpoint, GWI increased or remained at similar levels in eight out of the ten industries analyzed, with Consumer Staples and Healthcare being notable exceptions. These two industries were also the least impacted by the pandemic, with the former benefitting from stay-at-home lockdown policies and the latter (which includes pharma and biotech companies) facing increased demand created by the health crisis.

Conversely, Energy was especially hard hit in 2020, reaching the top of the GWI table, pushing Communication Services down to the second spot. Notably, Communication Services continued to see a significant rise in impairment activity for a second consecutive year, registering a record number of impairments in 2020 and an aggregate GWI of \$27.5 bn, the highest level since 2007. However, 2007 was dominated by a single large impairment event (Sprint-Nextel at \$29.7 bn out of the \$29.8 bn industry total), whereas the 2019-2020 impairments affected the industry more broadly. Several companies continued to struggle with intense competition and changes in consumer preferences, further exacerbated by issues stemming from COVID-19, such as content creation delays and venue shutdowns.

In 2020, the industries with the largest increase in GWI relative to 2019 are as follows in order of magnitude (\$ in billions):

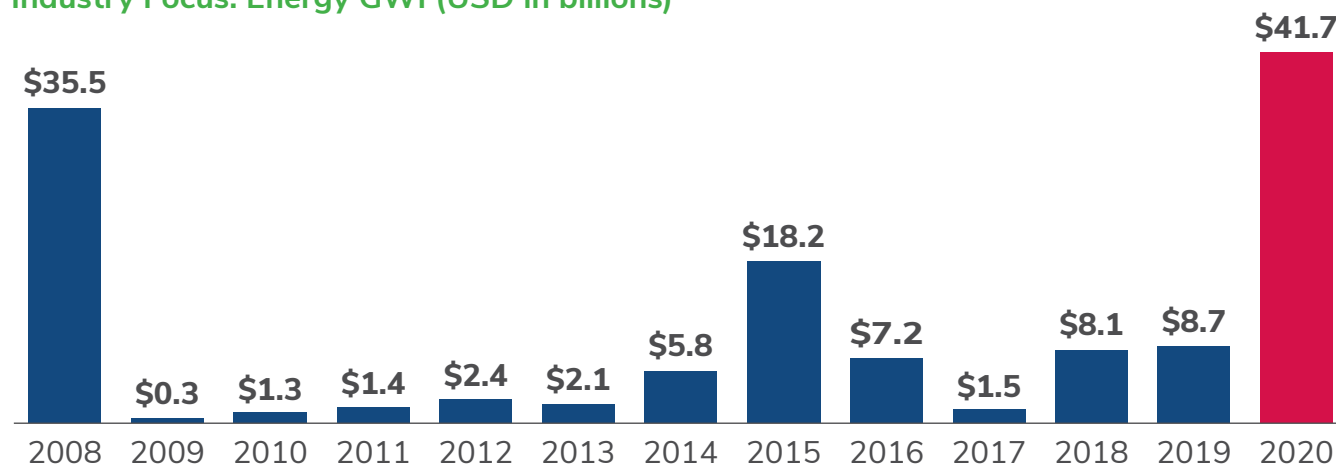
- Energy (\$8.7 to \$41.7)
- Financials & Real Estate (\$0.4 to \$19.1)
- Industrials (\$4.5 to \$13.2)

Energy's aggregate GWI amount surged by almost five-fold in 2020, reaching a record \$41.7 bn, its highest level ever in our study's database. Global demand for oil plunged as governments worldwide imposed lockdown policies following the outbreak of COVID-19 (including social distancing, closing of businesses, and travel restrictions), which combined with a temporary oil price war between Saudi Arabia and Russia, led to a collapse in prices.

Financials and Real Estate's aggregate GWI amount increased by a factor of 43x from 2019 to 2020, reaching its highest level since 2008, during the global financial crisis. Impairments resulted from a combination of factors. Real Estate companies were particularly affected by the shutdown of retail and hotel properties. Financial institutions were challenged by further margin compression, as monetary policies implemented by major central banks in 2020 to counter the effect of COVID-19 drove interest rates even lower, while the deterioration in the economic environment led to a rise in credit losses.

Industrials' aggregate GWI amount nearly tripled in 2020, while the number of events for the year reached a new record high, nearly doubling compared to 2019. Government restrictions related to the pandemic, especially regarding air travel, caused a severe downturn in demand across the industry.

Industry Focus: Energy GWI (USD in billions)



2021 Study: Looking Back and Looking Ahead

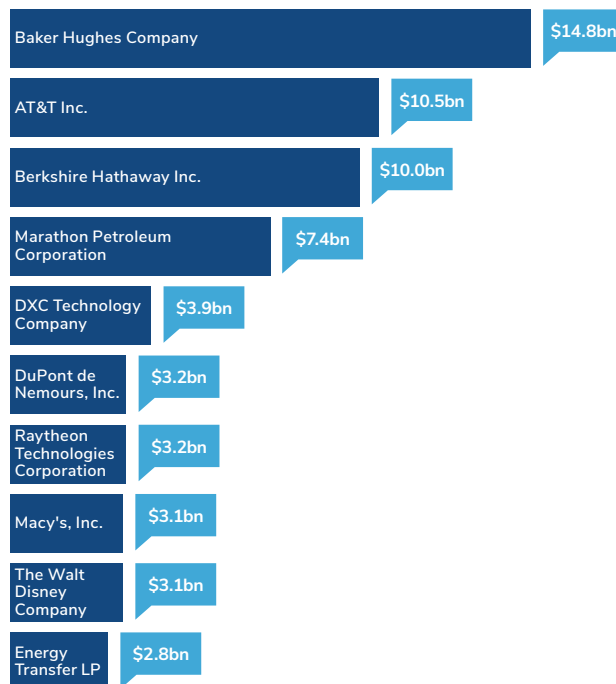
The 2021 Study captures 8,900+ public companies incorporated in the U.S.^{*} In 2020, the top five impairments totaled \$46.5 bn, while the top 10 impairments reached \$61.9 bn, accounting for nearly 33% and 43% of the aggregate GWI of \$142.5 bn, respectively.[†]

In 2021, the economic and business outlook improved markedly, as the approval of new COVID-19 vaccines and the increased rate of vaccination allowed for the reopening of the U.S. economy. While pandemic-related challenges still existed, and economic recovery saw a slowdown at mid-year due to the COVID-19 Delta variant, the U.S. ended the year with a robust 5.6% real GDP growth. U.S. industries have mostly recovered from the slump in 2020, and while there is still some diverging performance by companies within the same industry, they are overall in a much better position relative to the prior year. In fact, the increased U.S. consumer demand unleashed by the unprecedented government fiscal support, combined with labor shortages and global supply chain disruptions, meant that many companies were unable to fully satisfy the demand for their products.

At the time of writing, the disclosed top 10 GWI events for 2021 reached a combined \$5 bn, which pales in comparison to the top 10 in 2020. Although full 2021 calendar year-end results for U.S. public companies will not be known for some time, early reporting points to overall GWI merely reaching \$7 bn in 2021. Even if GWI increases slightly from this level, an amount this low has not been observed since 2006.[‡]

Top 10

GOODWILL IMPAIRMENTS[§] In 2020









^{*} The 2021 Study uses the S&P Capital IQ platform as the primary source of data. The procedures described in the Appendix were undertaken to arrive at the final dataset, which was used to calculate all ratios and summary statistics throughout the study.

[†] As indicated earlier, the 2021 Study excludes companies that are incorporated outside of the U.S. but may be viewed as U.S. companies by financial markets. If such companies were included, Schlumberger's \$3.1 bn impairment would become the 10th largest event for 2020, changing the statistics on GWI concentration.

[‡] Data for calendar year 2021 was compiled on February 28, 2022. The identity of the top 10 largest impairment events in 2021 may change once all companies report full-year 2021 results.

[§] Calendar years (not "most recent fiscal years") were used to examine impairments during a specific period of time, regardless of company-specific choices of fiscal years. Financial data was also adjusted to include GWI amounts disclosed within discontinued operations or disposal groups, when identified.

Top 30 Goodwill Impairment Summary

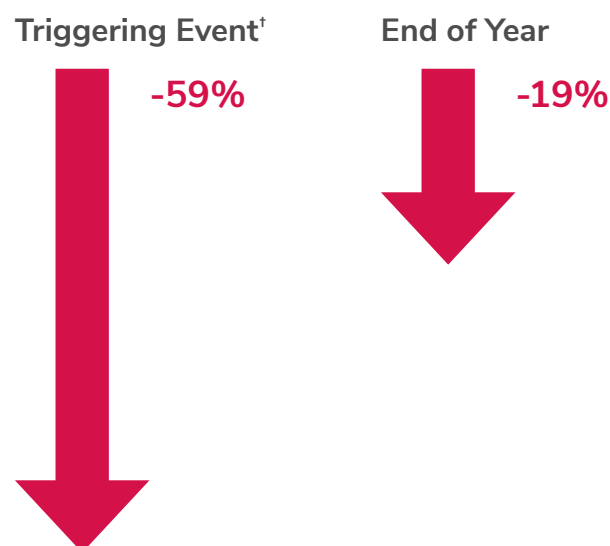
No.	Company	GICS	Industry	Goodwill Impairment (USD bn)	% of Goodwill Impaired	GWl Test Type*	Reportable Segments	Operating Segments	Reporting Units	Reporting Units with Goodwill
1	Baker Hughes	10	 Energy	\$14.8 bn	71%	T	4	4	4	4
2	AT&T	50	 Communication Services	\$10.5 bn	7%	T	3	3	10	<=10
3	Berkshire Hathaway	40	 Financials & Real Estate	\$10.0 bn	12%	T	6	8	>=8	>=8
4	Marathon Petroleum	10	 Energy	\$7.4 bn	37%	T	2	>=2	10	8
5	DXC Technology	45	 Information Technology	\$3.9 bn	64%	T	2	>=2	>=2	2
6	DuPont de Nemours	15	 Materials	\$3.2 bn	10%	T	5	5	12	7

* Identifies whether GWl was taken as part of an interim test related to a triggering event(s) (T), an annual test (A), or both (B).

#1 Baker Hughes







Energy

Change in Market Capitalization through



- Recognized an aggregate \$14.8 bn of GWl across two reporting units.
- Due to a collapse in oil prices and the macroeconomic and geopolitical conditions caused by the COVID-19 pandemic, the company felt the need to right-size the business for lower expected activity levels, which included implementing a restructuring plan and various other actions. In addition, the company's market capitalization declined significantly in the first quarter of 2020.
- Based on these events, the company concluded that a triggering event had occurred and, accordingly, performed an interim GWl test at March 31, 2020. This resulted in the recognition of impairments of \$11.5 bn in the Oilfield Services and \$3.3 bn in the Oilfield Equipment reporting units.

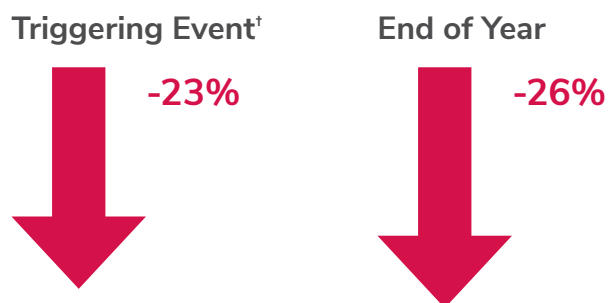
[†] Market capitalization change through the end of the quarter in which the company first identified a triggering event. Subsequent triggering events, if any, are not captured in this metric.

No.	Company	GICS	Industry	Goodwill Impairment (USD bn)	% of Goodwill Impaired	GWI Test Type*	Reportable Segments	Operating Segments	Reporting Units	Reporting Units with Goodwill
7	Raytheon Technologies	20	 Industrials	\$3.2 bn	7%	T	4	>4	>6	>=6
8	Macy's	25	 Consumer Discretionary	\$3.1 bn	79%	T	1	6	>=6	>=6
9	Walt Disney	50	 Communication Services	\$3.1 bn	4%	T	4	4	>=5	>=5
10	Energy Transfer	10	 Energy	\$2.8 bn	54%	T	8	>=8	>=8	>=8
11	Lumen Technologies	50	 Communication Services	\$2.6 bn	12%	A	5	>=5	>=8	8
12	Sinclair Broadcast Group	50	 Communication Services	\$2.6 bn	55%	T	2	>=2	>=3	>=3

* Identifies whether GWI was taken as part of an interim test related to a triggering event(s) (T), an annual test (A), or both (B).







#2 AT&T Communication Services

Change in Market Capitalization through



- Recognized an aggregate \$10.5 bn of GWI across two reporting units.
- The first impairment related to Latin American operations conducted through the Vrio reporting unit. As a result of adverse economic and political environments in Latin America, including the impact of the COVID-19 pandemic, subscriber loss accelerated and revenue declined in the region, also leading to the closure of operations in Venezuela. An interim test in the second quarter of 2020 led to the impairment of all the \$2.2 bn goodwill in the Vrio reporting unit due to these negative trends and an increase in country risk premia in the region.
- The second impairment was related to domestic operations. After continued competitive pressure, in December 2020, management decided to shift its domestic video strategy, resulting in the separation of its Entertainment Group reporting unit (including the business related to the DirecTV acquisition in 2015) into two separate reporting units: Video and Broadband. As part of the reorganization, the company performed a GWI test that resulted in the full write-off of goodwill in the Video reporting unit of \$8.3 bn.

† Market capitalization change through the end of the quarter in which the company first identified a triggering event. Subsequent triggering events, if any, are not captured in this metric.

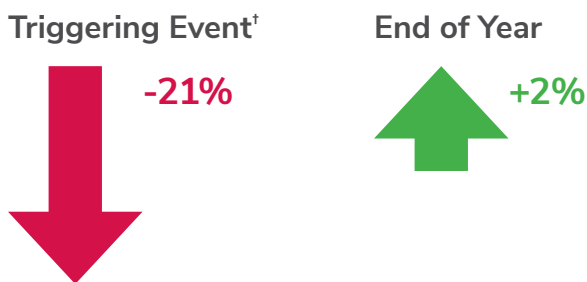
No.	Company	GICS	Industry	Goodwill Impairment (USD bn)	% of Goodwill Impaired	GWI Test Type*	Reportable Segments	Operating Segments	Reporting Units	Reporting Units with Goodwill
13	Plains GP	10	 Energy	\$2.5 bn	99%	T	3	3	3	3
14	Kraft Heinz	30	 Consumer Staples	\$2.3 bn	7%	B	3	>=3	15	9
15	AMC Entertainment	50	 Communication Services	\$2.3 bn	48%	B	2	2	2	2
16	Phillips 66	10	 Energy	\$1.8 bn	56%	T	2	4	>=4	2
17	Umpqua Holdings	40	 Financials & Real Estate	\$1.8 bn	100%	T	2	4	>=4	3
18	General Electric	20	 Industrials	\$1.7 bn	7%	T	5	>=5	>=5	>=5

* Identifies whether GWI was taken as part of an interim test related to a triggering event(s) (T), an annual test (A), or both (B).

#3 Berkshire Hathaway







Financials

Change in Market Capitalization through



- Berkshire Hathaway is a global conglomerate managing a group of diversified businesses in insurance, railroad, utilities and energy generation, industrial manufacturing, and consumer products, among others.
- The effects of the COVID-19 pandemic and the grounding of the Boeing 737 MAX created a significant adverse impact on the company’s Precision Castparts Corp (PCC) aerospace manufacturing business, which was acquired in 2016.
- The company determined it was necessary to perform an interim test to quantitatively re-evaluate GWI for certain reporting units in the second quarter of 2020, and most significantly for PCC. As a result, the company recorded total GWI charges of \$10.0 bn.

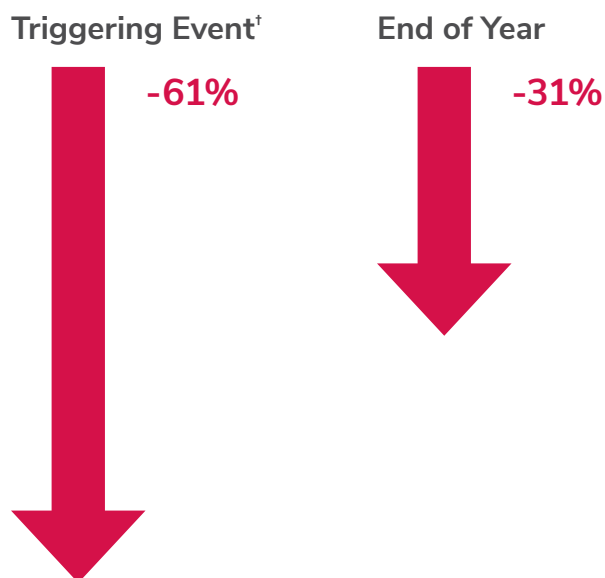
† Market capitalization change through the end of the quarter in which the company first identified a triggering event. Subsequent triggering events, if any, are not captured in this metric.

No.	Company	GICS	Industry	Goodwill Impairment (USD bn)	% of Goodwill Impaired	GWl Test Type*	Reportable Segments	Operating Segments	Reporting Units	Reporting Units with Goodwill
19	Walgreens Boots Alliance	30	 Consumer Staples	\$1.7 bn	10%	T	3	3	>=4	>=4
20	Kinder Morgan	10	 Energy	\$1.6 bn	7%	T	5	>=5	>=6	6
21	Molson Coors	30	 Consumer Staples	\$1.5 bn	19%	A	2	2	2	2
22	PacWest Bancorp	40	 Financials & Real Estate	\$1.5 bn	58%	T	1	1	1	1
23	WestRock Company	15	 Materials	\$1.3 bn	18%	A	3	>=3	>=3	2
24	NOV Inc.	10	 Energy	\$1.3 bn	46%	T	3	3	>=9	9

* Identifies whether GWl was taken as part of an interim test related to a triggering event(s) (T), an annual test (A), or both (B).







#4 Marathon Petroleum Energy

Change in Market Capitalization through



- Recognized an aggregate \$7.4 bn of GWl across two reporting units.
- The outbreak of COVID-19 and the decline in commodity prices during the first quarter of 2020 had significant adverse effects on the company’s business.
- Due to these developments, interim impairment assessments were performed during the first quarter of 2020, leading the company to fully write off the goodwill of \$5.5 bn in the Refining & Marketing reporting unit. An impairment of \$1.8 bn was also recognized in the company’s Eastern Gathering & Processing reporting unit, driven by additional market guidance on decelerating drilling activity, also causing the full write-off of goodwill.
- In the third quarter of 2020, the company transferred some goodwill into the Refining & Marketing reporting unit. The reorganization required a new impairment test, which led to the full write-off of \$64 million in goodwill.

† Market capitalization change through the end of the quarter in which the company first identified a triggering event. Subsequent triggering events, if any, are not captured in this metric.

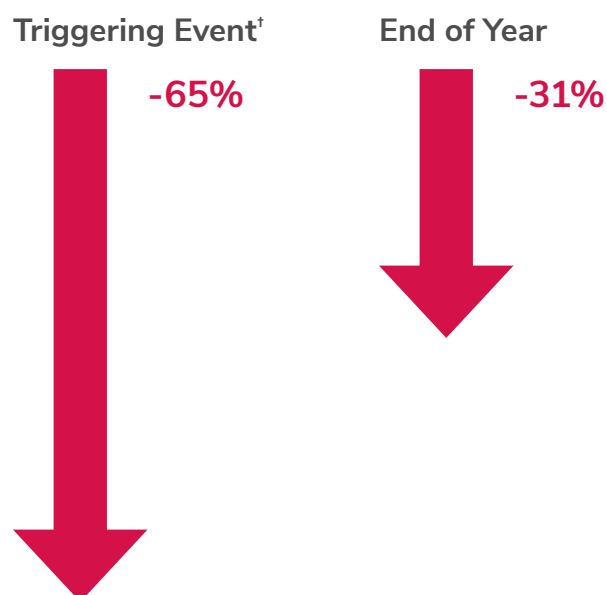
No.	Company	GICS	Industry	Goodwill Impairment (USD bn)	% of Goodwill Impaired	GWI Test Type*	Reportable Segments	Operating Segments	Reporting Units	Reporting Units with Goodwill
25	iHeartMedia Inc.	50	 Communication Services	\$1.2 bn	37%	T	2	>=2	>=3	3
26	Occidental Petroleum	10	 Energy	\$1.2 bn	96%	T	3	3	>=4	>=1
27	News Corp	50	 Communication Services	\$1.1 bn	22%	B	6	>=6	>=9	9
28	Booking Holdings	25	 Consumer Discretionary	\$1.1 bn	36%	B	1	4	>4	>1
29	Liberty SiriusXM Group	50	 Communication Services	\$1.0 bn	6%	A	3	>=4	>=4	>=4
30	Owens Corning	20	 Industrials	\$0.9 bn	49%	T	3	3	3	3

* Identifies whether GWI was taken as part of an interim test related to a triggering event(s) (T), an annual test (A), or both (B).

#5 DXC Technology

Information Technology











Change in Market Capitalization through



- Recognized an aggregate \$6.8 bn of GWI in the fiscal year ending March 31, 2020; however, our current study only captures the \$3.9 bn recognized during calendar year 2020, with the balance captured in 2019.
- The impairment recorded in the quarter ending in March 2020 resulted from an interim GWI test triggered by the sustained decline in the company's stock price.
- DXC Technology was created in April 2017 by the merger of Hewlett Packard Enterprise Services and Computer Sciences Corporation, which led to the recognition of a substantial amount of goodwill. Following the merger, revenues have seen annual consecutive declines without an accompanying reduction in costs.











[†] Market capitalization change through the end of the quarter in which the company first identified a triggering event. Subsequent triggering events, if any, are not captured in this metric.

2020 Goodwill Impairment* (Table 1)

	2020 (Companies)	2016	2017	2018	2019	2020		
		Goodwill Impairments: \$ billions (number of events)					Companies with GW	Percent Recording GWI
		Percent of Total Companies that Recorded GWI						
		Percent of Companies with Goodwill						
		Percent of Companies with Goodwill that Recorded a GWI						
	Energy (560)	7.2 (27) 4.2% 19.3% 21.6%	1.5 (13) 2.2% 19.1% 11.4%	8.1 (33) 5.0% 16.1% 30.8%	8.7 (33) 5.3% 15.6% 34.0%	41.7 (55) 9.8% 12.1% 80.9%	12%	81%
	Communication Services (559)	0.0 (2) 1.9% 41.9% 4.5%	4.9 (3) 2.9% 36.3% 8.1%	8.6 (22) 3.7% 23.2% 16.1%	19.7 (30) 5.2% 24.0% 21.9%	27.5 (42) 7.5% 25.6% 29.4%	26%	29%
	Financials & Real Estate (1,877)	1.2 (15) 1.1% 42.5% 2.5%	1.8 (20) 1.4% 41.1% 3.3%	0.4 (19) 1.2% 35.1% 3.5%	0.4 (20) 1.1% 34.6% 3.2%	19.1 (57) 3.0% 33.0% 9.2%	33%	9%
	Consumer Discretionary (927)	5.4 (58) 4.9% 41.0% 11.9%	9.3 (63) 5.3% 40.1% 13.1%	8.7 (49) 5.0% 35.4% 14.2%	7.2 (54) 5.7% 35.6% 16.1%	15.2 (94) 10.1% 35.9% 28.2%	36%	28%
	Industrials (1,077)	4.5 (59) 5.3% 46.0% 11.6%	5.9 (59) 5.4% 45.4% 11.8%	25.1 (50) 4.5% 38.6% 11.6%	4.5 (50) 4.6% 39.0% 11.8%	13.2 (91) 8.4% 39.4% 21.5%	39%	22%
	Information Technology (1,222)	4.1 (44) 3.0% 42.0% 7.2%	1.3 (41) 2.8% 40.7% 6.9%	2.7 (50) 4.0% 35.0% 11.4%	8.1 (41) 3.3% 35.2% 9.5%	8.5 (43) 3.5% 36.1% 9.8%	36%	10%
	Materials (522)	1.0 (19) 3.2% 23.1% 13.7%	1.3 (14) 2.4% 23.1% 10.2%	0.6 (12) 2.0% 18.4% 11.0%	3.7 (14) 2.5% 19.6% 13.0%	7.1 (18) 3.4% 21.3% 16.2%	21%	16%
	Consumer Staples (471)	0.8 (19) 4.1% 33.0% 12.3%	1.8 (23) 4.9% 32.0% 15.4%	9.5 (21) 4.4% 24.5% 17.9%	12.9 (25) 5.3% 23.5% 22.3%	6.8 (22) 4.7% 25.7% 18.2%	26%	18%
	Healthcare (1,557)	3.1 (39) 3.1% 30.8% 9.9%	7.2 (51) 3.9% 30.0% 12.9%	15.0 (46) 3.2% 23.7% 13.7%	5.3 (44) 3.0% 24.9% 12.1%	3.3 (36) 2.3% 25.0% 9.3%	25%	9%
	Utilities (138)	1.4 (6) 4.2% 46.9% 9.0%	0.2 (6) 4.2% 42.7% 9.8%	0.2 (5) 3.4% 40.1% 8.5%	0.3 (7) 5.0% 41.0% 12.3%	0.2 (4) 2.9% 41.3% 7.0%	41%	7%
	Total (8,910)	28.5 (288) 3.4% 37.3% 9.2%	35.1 (293) 3.5% 36.3% 9.6%	78.9 (307) 3.5% 29.9% 11.7%	71.0 (318) 3.6% 30.3% 11.8%	142.5 (462) 5.2% 30.4% 17.1%	30%	17%

* Revisions to the GICS® structure in 2018 affect historical comparability on an industry basis. See Methodology appendix for further information.

2020 Goodwill Impairment* (Table 2)

		2016	2017	2018	2019	2020		
		Goodwill Intensity (GW/TA)				GW / TA	GWI / GW	
2020 (Companies)		Loss Intensity (GWI/GW)	Loss Intensity (GWI/GW)	Loss Intensity (GWI/TA)	Loss Intensity (GWI/TA)			
	Energy (560)	4.7%	4.4%	4.9%	5.1%	3.5%	4%	37.7%
		6.7%	1.4%	8.5%	7.4%			
		0.3%	0.1%	0.4%	0.4%	2.0%		
	Communication Services (559)	19.6%	18.7%	21.6%	20.6%	19.3%	19%	4.9%
		0.0%	2.6%	1.9%	3.8%	4.9%		
		0.0%	0.5%	0.4%	0.8%	1.0%		
	Financials & Real Estate (1,877)	1.8%	1.8%	1.9%	2.0%	1.8%	2%	2.9%
		0.2%	0.3%	0.1%	0.1%	2.9%		
		0.0%	0.0%	0.0%	0.0%	0.1%		
	Consumer Discretionary (927)	13.7%	14.7%	10.0%	8.4%	7.8%	8%	7.7%
		1.8%	2.5%	4.2%	3.6%	7.7%		
		0.2%	0.3%	0.4%	0.4%	0.7%		
	Industrials (1,077)	19.3%	20.4%	20.5%	18.7%	19.0%	19%	2.5%
		1.0%	1.3%	4.9%	0.9%	2.5%		
		0.2%	0.2%	1.0%	0.2%	0.5%		
	Information Technology (1,222)	19.9%	19.7%	23.5%	25.2%	24.3%	24%	1.1%
		0.8%	0.2%	0.5%	1.3%	1.1%		
		0.2%	0.0%	0.1%	0.3%	0.3%		
	Materials (522)	15.3%	19.0%	19.4%	18.4%	17.5%	18%	4.2%
		0.9%	1.1%	0.4%	2.0%	4.2%		
		0.1%	0.2%	0.1%	0.4%	0.8%		
	Consumer Staples (471)	22.4%	21.7%	23.2%	22.1%	20.8%	21%	2.0%
		0.2%	0.5%	3.0%	3.7%	2.0%		
		0.1%	0.1%	0.7%	0.9%	0.4%		
	Healthcare (1,557)	26.2%	27.7%	28.6%	26.6%	26.0%	26%	0.4%
		0.7%	1.4%	2.7%	0.8%	0.4%		
		0.2%	0.4%	0.7%	0.2%	0.1%		
	Utilities (138)	5.3%	5.2%	5.2%	5.2%	5.0%	5%	0.2%
		2.1%	0.2%	0.3%	0.4%	0.2%		
		0.1%	0.0%	0.0%	0.0%	0.0%		
	Total (8,910)	7.2%	7.5%	8.0%	7.8%	7.3%	7%	3.4%
		1.0%	1.1%	2.3%	1.8%	3.4%		
		0.1%	0.1%	0.2%	0.1%	0.3%		

* Revisions to the GICS® structure in 2018 affect historical comparability on an industry basis. See Methodology appendix for further information.

2021 U.S. Industry Spotlight

The U.S. Industry Spotlight aggregates data from Tables 1 and 2 and provides historical GWI trends and statistics at a glance, as well as a summary of the relative size and performance of each industry versus the overall universe of companies captured in the 2021 Study.

Guide

The guide below provides a brief description of the components of the U.S. Industry Spotlight.

Goodwill Trends

Provides the aggregate goodwill balances for year-end 2015 and 2020, as well as the cumulative goodwill additions and impairments over that five-year period.



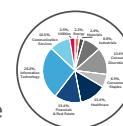
Market-to-Book Ratio Distribution

Highlights the number of companies (shown in percentage terms) with a market-to-book ratio below and above 1.0. The blue shaded area to the left of the needle further separates the proportion of companies with a ratio above and below 0.5. Although not predictive on its own, companies with a low market-to-book ratio may be at a greater risk of impairment. Reporting unit structures, their respective performance and where the goodwill resides are a few of the critical factors that must be considered in the impairment testing process.



Size of Industry Sectors

Represents the aggregate size of the companies within an industry sector relative to the combined size of all the companies included in the 2021 Study sample, measured in terms of market capitalization at the end of 2020.



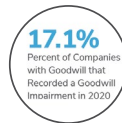
Impairment History

Presents annual GWI amounts and number of impairment events over the 2016-2020 period. The median market-to-book ratio (green line) provides some context for the annual impairment measures.



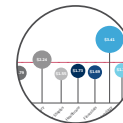
Summary Statistics

Depicts the following calendar-year 2020 statistics for the companies included in the 2021 Study sample: (i) Number of Companies; (ii) Goodwill Intensity (GW/TA); (iii) Loss Intensity ratio (goodwill impairment as a percentage of the prior year's total goodwill, or GWI/GW); (iv) Percent of Companies with Goodwill; (v) Percent of Companies with Goodwill that Recorded a Goodwill Impairment; and (vi) Median Market-to-Book ratio.



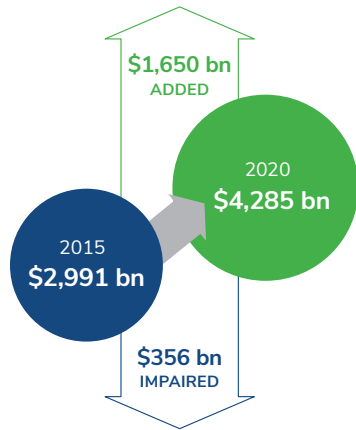
Index

Shows the five-year cumulative returns of 10 industries as represented by the respective S&P 500 sector indices versus the performance of the overall S&P 500 Index over the 2016-2020 period. Summarizes the relative performance of each industry, reflecting what a \$1 investment at the end of 2015 would be worth at the end of 2020.

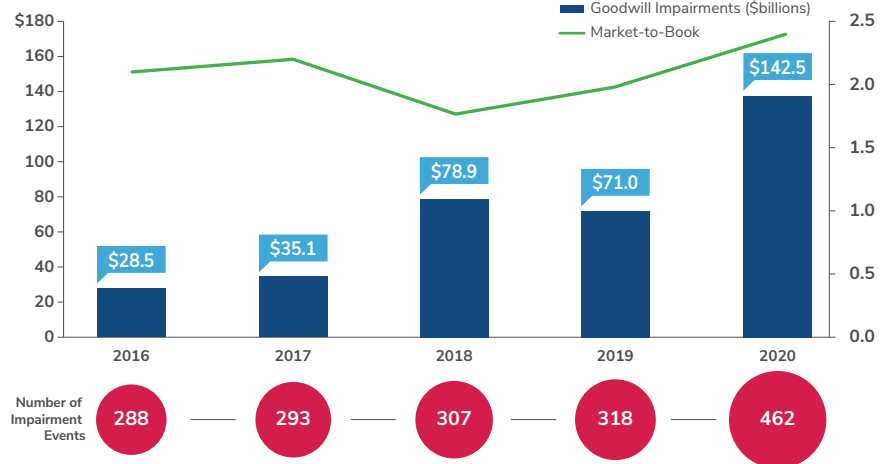


2021 U.S. Industry Spotlight

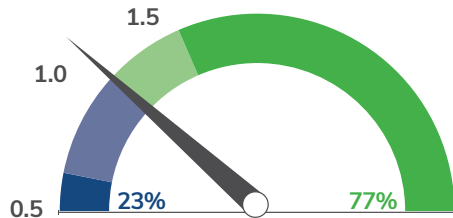
Goodwill Impairment Trends 2015-2020



Goodwill Impairment History



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



8,910
Companies

7.3%
Goodwill to Total Assets
(GW/TA)

3.4%
Percent of Goodwill
Impaired (GWI/GW ratio)

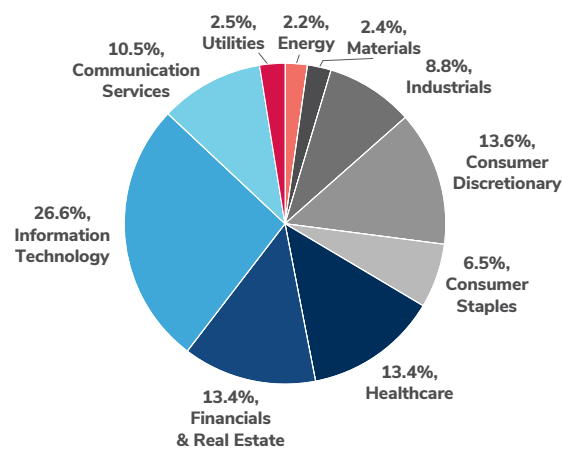
30.4%
Companies with
Goodwill

17.1%
Percent of Companies
with Goodwill that
Recorded a Goodwill
Impairment in 2020

2.3
Market-to-Book Ratio
(median)

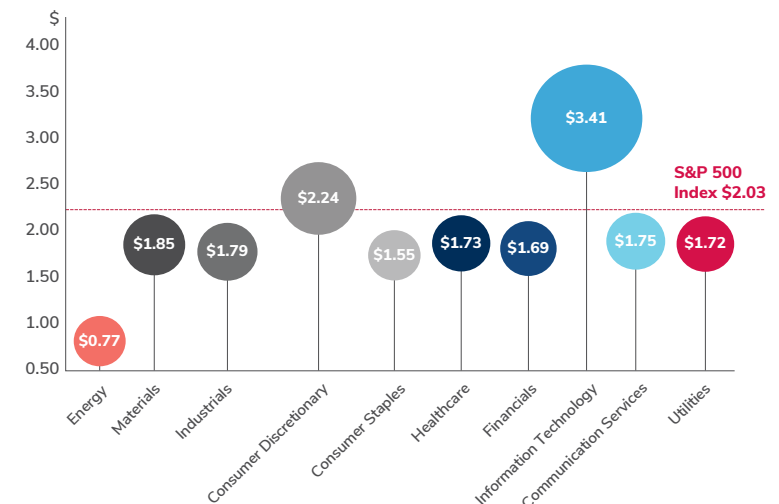
Size of Industry Sectors

(Relative to Study's Total Market Cap)



Cumulative 5-year Total Return by Industry from 2016 to 2020

Index (Year End 2015 = \$1)



Goodwill Impairments by Sub-industry Calendar Year 2020

Goodwill Intensity:

- Goodwill to Total Assets (GW/TA)

Loss Intensity:

- Goodwill Impairment to Goodwill (GWI/GW)

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

GICS Code	GICS Sub-Industry Name	Number Co's	% of Co's with GW	GW/TA	GWI/GW	% of Co's with GW that Recorded GWI	Goodwill Impairment (in \$millions)	Market-to-Book Ratio
Energy							\$41,687	
10101010	Oil and Gas Drilling	8	25%	0.6%	89.8%	100.0%	\$433	0.5
10101020	Oil and Gas Equipment and Services	93	24%	10.7%	63.0%	100.0%	\$18,973	0.9
10102010	Integrated Oil and Gas	4	25%	0.7%	31.1%	50.0%	\$1,764	1.2
10102020	Oil and Gas Exploration and Production	303	3%	0.6%	43.3%	75.0%	\$1,490	1.3
10102030	Oil and Gas Refining and Marketing	72	19%	6.4%	32.3%	64.3%	\$9,582	1.1
10102040	Oil and Gas Storage and Transportation	46	41%	6.4%	22.8%	68.4%	\$9,312	1.8
10102050	Coal and Consumable Fuels	34	6%	0.7%	59.5%	50.0%	\$132	0.6
Materials							\$7,118	
15101010	Commodity Chemicals	60	20%	12.9%	5.5%	16.7%	\$713	2.2
15101020	Diversified Chemicals	5	40%	4.1%	–	–	–	1.6
15101030	Fertilizers and Agricultural Chemicals	30	33%	17.5%	0.0%	10.0%	\$1	1.3
15101040	Industrial Gases	5	20%	3.5%	–	–	–	4.8
15101050	Specialty Chemicals	74	42%	30.4%	5.6%	16.1%	\$4,416	2.8
15102010	Construction Materials	17	41%	23.8%	–	–	–	2.6
15103010	Metal and Glass Containers	14	71%	26.6%	1.0%	20.0%	\$189	4.4
15103020	Paper Packaging	15	67%	18.4%	6.1%	30.0%	\$1,394	3.1
15104010	Aluminum	12	25%	2.3%	–	–	–	2.0
15104020	Diversified Metals and Mining	114	3%	9.2%	2.1%	33.3%	\$9	4.2
15104025	Copper	3	33%	0.1%	–	–	–	5.3
15104030	Gold	77	1%	5.9%	–	–	–	3.3
15104040	Precious Metals and Minerals	32	–	–	–	–	–	9.8
15104045	Silver	9	–	–	–	–	–	2.5
15104050	Steel	35	40%	7.8%	6.3%	21.4%	\$391	1.3
15105010	Forest Products	7	14%	1.2%	16.7%	100.0%	\$5	3.6
15105020	Paper Products	13	38%	4.1%	–	–	–	1.1

GICS Code	GICS Sub-Industry Name	Number Co's	% of Co's with GW	GW/TA	GW/GW	% of Co's with GW that Recorded GWI	Goodwill Impairment (in \$millions)	Market-to-Book Ratio
Industrials							\$13,180	
20101010	Aerospace and Defense	84	43%	25.9%	2.6%	13.9%	\$3,866	2.6
20102010	Building Products	46	67%	27.4%	5.2%	12.9%	\$1,462	3.2
20103010	Construction and Engineering	63	51%	17.0%	6.3%	25.0%	\$845	2.2
20104010	Electrical Components and Equipment	115	27%	27.8%	0.3%	12.9%	\$55	4.3
20104020	Heavy Electrical Equipment	35	14%	9.3%	–	–	–	7.1
20105010	Industrial Conglomerates	18	44%	16.8%	2.6%	25.0%	\$1,718	4.0
20106010	Construction Machinery and Heavy Trucks	38	61%	11.3%	1.4%	30.4%	\$305	2.6
20106015	Agricultural and Farm Machinery	17	47%	5.6%	0.4%	12.5%	\$20	4.6
20106020	Industrial Machinery	152	40%	32.4%	0.9%	21.3%	\$605	2.7
20107010	Trading Companies and Distributors	68	50%	13.3%	4.8%	35.3%	\$817	2.0
20201010	Commercial Printing	14	43%	20.7%	3.5%	16.7%	\$68	2.3
20201050	Environmental and Facilities Services	106	21%	37.2%	2.8%	31.8%	\$849	3.4
20201060	Office Services and Supplies	29	45%	19.8%	11.8%	38.5%	\$486	1.6
20201070	Diversified Support Services	50	28%	27.9%	4.3%	42.9%	\$360	2.0
20201080	Security and Alarm Services	13	38%	24.5%	2.2%	40.0%	\$128	2.1
20202010	Human Resource and Employment Services	46	46%	14.8%	8.1%	28.6%	\$400	2.6
20202020	Research and Consulting Services	81	40%	44.1%	0.6%	12.5%	\$244	3.0
20301010	Air Freight and Logistics	26	46%	7.9%	2.7%	8.3%	\$358	2.7
20302010	Airlines	17	29%	7.6%	0.5%	20.0%	\$107	1.4
20303010	Marine	6	50%	9.8%	29.5%	33.3%	\$388	1.0
20304010	Railroads	7	14%	0.0%	–	–	–	5.0
20304020	Trucking	40	50%	11.3%	0.9%	5.0%	\$100	2.0
20305010	Airport Services	1	100%	15.0%	–	–	–	0.6
20305020	Highways and Railtracks	1	–	–	–	–	–	–
20305030	Marine Ports and Services	4	–	–	–	–	–	1.2
Consumer Discretionary							\$15,157	
25101010	Auto Parts and Equipment	65	38%	10.1%	10.9%	16.0%	\$1,011	2.5
25101020	Tires and Rubber	4	50%	2.2%	31.2%	50.0%	\$182	1.5
25102010	Automobile Manufacturers	21	14%	0.4%	–	–	–	4.0
25102020	Motorcycle Manufacturers	7	14%	0.5%	–	–	–	6.1
25201010	Consumer Electronics	24	17%	8.8%	–	–	–	1.9
25201020	Home Furnishings	22	45%	18.6%	1.9%	40.0%	\$94	1.5

GICS Code	GICS Sub-Industry Name	Number Co's	% of Co's with GW	GW/TA	GW/GW	% of Co's with GW that Recorded GWI	Goodwill Impairment (in \$millions)	Market-to-Book Ratio
25201030	Homebuilding	33	58%	5.3%	0.3%	5.3%	\$20	1.5
25201040	Household Appliances	20	25%	12.1%	–	–	–	3.0
25201050	Housewares and Specialties	6	50%	21.8%	6.1%	66.7%	\$231	1.9
25202010	Leisure Products	57	35%	17.2%	19.2%	35.0%	\$786	4.1
25203010	Apparel, Accessories and Luxury Goods	61	33%	11.8%	15.9%	50.0%	\$1,694	1.8
25203020	Footwear	14	43%	2.0%	–	–	–	4.6
25203030	Textiles	9	22%	1.0%	56.0%	50.0%	\$14	1.5
25301010	Casinos and Gaming	49	43%	12.9%	4.1%	33.3%	\$435	4.7
25301020	Hotels, Resorts and Cruise Lines	41	34%	22.4%	6.5%	50.0%	\$2,090	7.1
25301030	Leisure Facilities	30	23%	17.4%	4.0%	42.9%	\$128	2.2
25301040	Restaurants	92	45%	10.3%	5.2%	31.7%	\$896	3.6
25302010	Education Services	47	36%	24.1%	11.3%	17.6%	\$1,054	1.9
25302020	Specialized Consumer Services	28	32%	21.4%	2.2%	44.4%	\$163	2.5
25501010	Distributors	45	22%	22.6%	7.4%	40.0%	\$525	3.4
25502020	Internet and Direct Marketing Retail	99	25%	7.4%	0.4%	20.0%	\$114	6.5
25503010	Department Stores	6	33%	2.4%	74.1%	50.0%	\$3,080	1.3
25503020	General Merchandise Stores	7	71%	7.4%	0.0%	20.0%	\$0	3.5
25504010	Apparel Retail	40	33%	0.9%	27.1%	38.5%	\$438	2.6
25504020	Computer and Electronics Retail	8	38%	4.2%	–	–	–	3.2
25504030	Home Improvement Retail	8	63%	6.4%	–	–	–	8.3
25504040	Specialty Stores	37	49%	10.1%	10.9%	22.2%	\$834	2.1
25504050	Automotive Retail	38	47%	7.5%	6.5%	27.8%	\$604	2.9
25504060	Home Furnishing Retail	9	56%	1.5%	73.3%	40.0%	\$767	2.4
Consumer Staples							\$6,802	
30101010	Drug Retail	12	33%	16.6%	9.5%	25.0%	\$1,700	1.4
30101020	Food Distributors	19	42%	19.9%	5.2%	50.0%	\$542	2.2
30101030	Food Retail	19	53%	6.2%	–	–	–	2.5
30101040	Hypermarkets and Super Centers	4	75%	9.4%	–	–	–	8.1
30201010	Brewers	3	67%	21.8%	19.2%	50.0%	\$1,484	6.7
30201020	Distillers and Vintners	22	18%	24.6%	–	–	–	3.0
30201030	Soft Drinks	45	18%	24.1%	0.0%	12.5%	\$14	9.8

GICS Code	GICS Sub-Industry Name	Number Co's	% of Co's with GW	GW/TA	GW/GW	% of Co's with GW that Recorded GWI	Goodwill Impairment (in \$millions)	Market-to-Book Ratio
30202010	Agricultural Products	41	20%	8.7%	–	–	–	1.4
30202030	Packaged Foods and Meats	125	33%	32.4%	1.9%	17.1%	\$2,408	2.3
30203010	Tobacco	20	35%	11.8%	0.7%	42.9%	\$80	6.8
30301010	Household Products	24	50%	30.1%	–	–	–	7.3
30302010	Personal Products	135	10%	17.0%	6.3%	35.7%	\$574	3.7
Healthcare							\$3,267	
35101010	Healthcare Equipment	244	26%	31.0%	0.9%	9.5%	\$889	4.6
35101020	Healthcare Supplies	51	49%	24.5%	2.1%	8.0%	\$170	4.4
35102010	Healthcare Distributors	40	30%	17.4%	2.5%	16.7%	\$744	3.7
35102015	Healthcare Services	112	37%	33.2%	0.3%	17.1%	\$454	4.2
35102020	Healthcare Facilities	48	38%	25.1%	0.1%	5.6%	\$34	4.1
35102030	Managed Healthcare	16	63%	29.3%	0.0%	10.0%	\$9	3.1
35103010	Healthcare Technology	93	33%	45.6%	6.9%	16.1%	\$830	5.3
35201010	Biotechnology	573	17%	14.5%	0.1%	4.2%	\$55	4.0
35202010	Pharmaceuticals	324	18%	21.7%	0.1%	12.1%	\$82	3.9
35203010	Life Sciences Tools and Services	57	61%	37.3%	0.0%	2.9%	\$0	8.1
Financials/Real Estate							\$19,075	
40101010	Diversified Banks	9	89%	1.6%	–	–	–	0.8
40101015	Regional Banks	717	47%	2.3%	4.8%	5.4%	\$6,170	0.9
40102010	Thriffs and Mortgage Finance	159	32%	0.1%	0.3%	3.9%	\$14	0.9
40201020	Other Diversified Financial Services	7	29%	1.0%	–	–	–	0.8
40201030	Multi-Sector Holdings	16	19%	8.5%	12.2%	66.7%	\$10,041	1.2
40201040	Specialized Finance	26	12%	0.7%	0.3%	66.7%	\$8	0.8
40202010	Consumer Finance	46	50%	2.1%	0.3%	8.7%	\$91	1.5
40203010	Asset Management and Custody Banks	327	8%	2.8%	1.6%	18.5%	\$514	18.2
40203020	Investment Banking and Brokerage	49	43%	1.1%	0.0%	4.8%	\$1	2.0
40203030	Diversified Capital Markets	1	100%	0.0%	98.6%	100.0%	\$8	0.5
40203040	Financial Exchanges & Data	26	58%	17.9%	0.1%	6.7%	\$41	7.8
40204010	Mortgage REITs	46	15%	0.2%	9.5%	28.6%	\$114	0.8
40301010	Insurance Brokers	20	45%	38.2%	0.1%	11.1%	\$18	3.6
40301020	Life and Health Insurance	30	37%	0.6%	0.0%	9.1%	\$5	0.7

GICS Code	GICS Sub-Industry Name	Number Co's	% of Co's with GW	GW/TA	GW/GW	% of Co's with GW that Recorded GWI	Goodwill Impairment (in \$millions)	Market-to-Book Ratio
40301030	Multi-line Insurance	8	63%	1.1%	1.7%	40.0%	\$143	1.0
40301040	Property and Casualty Insurance	55	47%	2.8%	1.5%	19.2%	\$244	1.1
40301050	Reinsurance	3	67%	0.5%	–	–	–	0.8
60101010	Diversified REITs	31	19%	4.0%	–	–	–	1.2
60101020	Industrial REITs	15	20%	0.8%	–	–	–	2.3
60101030	Hotel and Resort REITs	19	5%	0.0%	99.2%	200.0%	\$627	1.0
60101040	Office REITs	23	17%	0.1%	56.8%	25.0%	\$64	1.3
60101050	Healthcare REITs	20	40%	1.3%	–	–	–	1.9
60101060	Residential REITs	22	27%	0.6%	–	–	–	2.3
60101070	Retail REITs	39	15%	0.2%	43.0%	33.3%	\$247	1.2
60101080	Specialized REITs	32	56%	13.8%	0.4%	22.2%	\$140	3.4
60102010	Diversified Real Estate Activities	16	19%	0.2%	54.9%	33.3%	\$22	1.5
60102020	Real Estate Operating Companies	59	2%	0.2%	–	–	–	1.0
60102030	Real Estate Development	36	6%	1.2%	–	–	–	0.9
60102040	Real Estate Services	18	67%	24.4%	4.0%	16.7%	\$565	2.8
Information Technology							\$8,467	
45102010	IT Consulting and Other Services	98	22%	33.2%	5.9%	9.1%	\$4,478	3.4
45102020	Data Processing and Outsourced Services	90	50%	30.9%	0.2%	17.8%	\$387	5.3
45102030	Internet Services and Infrastructure	46	37%	32.6%	–	–	–	7.4
45103010	Application Software	394	33%	32.2%	0.7%	4.6%	\$641	9.4
45103020	Systems Software	81	43%	21.5%	0.0%	2.9%	\$1	12.3
45201020	Communications Equipment	105	36%	31.2%	1.4%	13.2%	\$715	3.0
45202030	Technology Hardware, Storage and Peripherals	68	28%	13.2%	1.1%	15.8%	\$918	1.9
45203010	Electronic Equipment and Instruments	127	28%	33.7%	4.3%	19.4%	\$663	4.5
45203015	Electronic Components	32	41%	19.9%	0.3%	7.7%	\$34	2.7
45203020	Electronic Manufacturing Services	28	46%	6.0%	6.2%	38.5%	\$131	1.5
45203030	Technology Distributors	39	28%	15.3%	2.8%	36.4%	\$243	1.4
45301010	Semiconductor Equipment	40	53%	14.6%	2.2%	4.8%	\$257	3.1
45301020	Semiconductors	72	53%	24.3%	–	–	–	6.0

GICS Code	GICS Sub-Industry Name	Number Co's	% of Co's with GW	GW/TA	GW/GW	% of Co's with GW that Recorded GWI	Goodwill Impairment (in \$millions)	Market-to-Book Ratio
Communication Services							\$27,527	
50101010	Alternative Carriers	37	14%	27.1%	11.9%	20.0%	\$2,642	3.3
50101020	Integrated Telecommunication Services	37	38%	18.6%	6.1%	14.3%	\$10,466	1.6
50102010	Wireless Telecommunication Services	25	32%	5.5%	8.6%	25.0%	\$243	2.9
50201010	Advertising	86	20%	30.3%	3.2%	35.3%	\$640	2.5
50201020	Broadcasting	34	56%	26.3%	7.8%	42.1%	\$4,007	1.2
50201030	Cable and Satellite	13	69%	22.8%	0.8%	11.1%	\$956	2.8
50201040	Publishing	26	35%	25.2%	18.8%	55.6%	\$1,826	1.8
50202010	Movies and Entertainment	126	18%	30.2%	5.8%	26.1%	\$5,486	3.2
50202020	Interactive Home Entertainment	34	21%	31.6%	–	–	–	4.8
50203010	Interactive Media and Services	143	22%	10.2%	2.4%	34.4%	\$1,261	4.8
Utilities							\$219	
55101010	Electric Utilities	34	53%	4.6%	0.1%	11.1%	\$34	1.9
55102010	Gas Utilities	18	78%	10.2%	–	–	–	1.7
55103010	Multi-Utilities	16	75%	4.7%	0.7%	8.3%	\$185	1.8
55104010	Water Utilities	24	33%	9.1%	–	–	–	3.1
55105010	Independent Power Producers and Energy Traders	8	25%	5.2%	–	–	–	2.0
55105020	Renewable Electricity	38	8%	3.1%	0.0%	33.3%	\$0	2.4

Appendix: Company Base Set Selection and Methodology

The 2021 Study focused on financial data for U.S.-based publicly traded companies filing under U.S. GAAP for the period 2016-2020. The primary sources of data for the 2021 Study were S&P Capital IQ platform, as well as individual company annual and interim financial reports.*

The 2021 Study relies upon the GICS® structure as of the end of calendar year 2020 for industry classification purposes. In September 2016, MSCI and S&P Dow Jones Indices separated exchange-listed equity REITs and other listed real estate companies from the Financials sector to create a new Real Estate GICS® industry sector. However, for purposes of the 2021 Study, statistics continue to be compiled for the combined Financials & Real Estate industry.†

In September 2018, the GICS® structure was further revised to reflect the evolution and convergence of telecommunications, media and internet companies. As a result, the Telecommunication Services sector was broadened and renamed to Communication Services. The renamed sector includes existing telecommunication firms as well as firms selected from the Consumer Discretionary and Information Technology sectors.‡

The following procedures were used to arrive at the 2021 Study dataset, which was used to calculate all ratios and summary statistics throughout the 2021 Study.

- American Depositary Receipts (ADRs), exchange traded funds (ETFs) and Closed End Funds were excluded from the dataset leaving 9,108 U.S.- based, U.S.-traded companies as of February 22, 2021.
- From this set, further excluded were companies identified as consolidated subsidiaries of other companies also within the dataset or not deemed to be publicly traded U.S. firms in 2020, resulting in a base set of 8,910 companies.§**
- The current methodology was first applied in the 2015 Study. The prior selection process excluded companies that did not have stock returns data over the prior five-year period; this restriction was removed in 2015. The five-years returns data selection criterion had been deemed relevant in previous studies, which were performed shortly after the financial crisis of 2008-2009.
- Financial data for all companies in the 2021 Study was adjusted, when applicable, to a calendar year-end (rather than the most recent fiscal year-end) to examine impairments over a specific period of time, regardless of company-specific choices of fiscal year. Financial data was also adjusted to include GWI amounts disclosed within discontinued operations or disposal groups, when identified.

* S&P Global Market Intelligence; S&P Capital IQ platform. S&P Global Market Intelligence is a division of S&P Global, Inc. Adjustments made to financial information contained in the S&P Capital IQ platform and subsequent analytical procedures applied to the data were performed by Kroll. The information presented in this Study has been obtained with the greatest of care from sources believed to be reliable, but is not guaranteed to be complete, accurate or timely. While most of the information for the 2016-2019 period was carried forward from the prior studies and analyses, certain historical financial data was adjusted for database errors. These corrections did not materially impact the historical trends observed for goodwill impairments.

† In 1999, MSCI and S&P Dow Jones Indices introduced the GICS® classification system, consisting of 10 industry sectors. In September 2016, MSCI and S&P Dow Jones introduced for the first time since the creation of GICS® structure a new eleventh sector for real estate. However, due to a limited sample size, compiling some of the goodwill impairment statistics for a stand-alone Real Estate industry would not result in meaningful comparisons. Therefore, we elected to continue to aggregate statistics for a combined Financials and Real Estate industry.

‡ Structure revisions that were introduced in September 2018 may impact industry level comparisons from prior years. For information on the structure revisions, see <https://www.msci.com/gics>.

§ Starting with the 2020 Study, the dataset includes firms classified by S&P Capital IQ as Public Investment Firms. In prior studies, this category of companies was excluded because it primarily consisted of non-operating and holding companies whose business was essentially comprised of investments in other companies and securities. However, as an increasing number of operating companies have been added to this category – including, but not limited to, firms with positive goodwill balances – we deemed appropriate to incorporate in the 2021 Study dataset those that appeared to have an operating nature. This step added over 260 companies to the dataset in 2019 and 2020.

** The dataset was assessed each year to identify any company with a controlling interest in another company, because in such cases the controlling investor (the parent) would have consolidated the underlying entity's (the subsidiary's) financial results. To avoid double counting the parent's and the subsidiary's reported financial information (including recorded impairments), we excluded the financial results of any subsidiary companies from the dataset that met this criterion.

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