

2017 European Goodwill Impairment Study

December 2017

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INTRODUCTION

In 2013, Duff & Phelps launched its inaugural study of goodwill impairments recognised by European companies.

Now in its fifth edition, the 2017 European Goodwill Impairment Study (2017 Study) continues to examine general goodwill impairment trends across countries and industries within the European market.

The analysis in the 2017 Study is focused on companies in the STOXX® Europe 600 Index, which is comprised of large, mid and small capitalisation companies across just under 20 countries of the European region, for the 2012-2016 calendar years.

In this fifth anniversary edition, Duff & Phelps is also introducing new analyses of goodwill impairment trends and statistics for benchmark stock market indices in four highlighted countries:

- CAC 40 in France
- DAX 30 in Germany
- IBEX 35 in Spain
- FTSE 100 in the United Kingdom



View the 2017 European Goodwill Impairment Study Online

Duff & Phelps' Goodwill Impairment Studies are online back to 2012. Access historical studies covering the U.S., Europe, and Canada.

www.duffandphelps.com/GWISudies

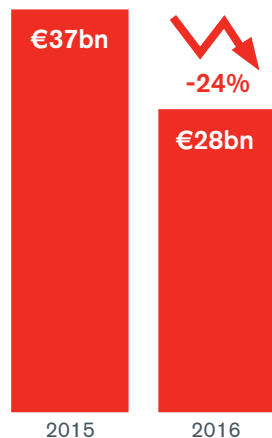
HIGHLIGHTS OF THE 2017 STUDY

The 2017 Study focused on financial data for companies comprising the STOXX® Europe 600 Index in calendar years 2012 through 2016.* The procedures described in **Appendix 1** were undertaken to arrive at the final dataset, which was used to calculate all ratios and summary statistics throughout the study.

This five-year period was characterised by economic uncertainty within Europe, with effects from the euro sovereign debt crisis dating back to 2010 still lingering. Nonetheless, the Eurozone economy is finally showing growth momentum, despite the uncertainty created by the United Kingdom's vote in June 2016 to end its membership in the European Union (known as "Brexit"). Assisted in part by European Central Bank's (ECB) quantitative easing (QE) policies, all Eurozone economies expanded for a second consecutive year in 2016, with the exception of Greece. However, the United Kingdom saw real growth slow down to 1.8%, its lowest level since 2012.†

M&A activity in 2016 was very strong in Europe, despite some uncertainty introduced by Brexit. This led to €229 billion of goodwill being added to the balance sheets STOXX® Europe 600 companies – the highest level since we began tracking this information in 2010 – with Germany adding the most. From an industry perspective, eight out of ten industries registered an increase in 2016, with Consumer Staples seeing the largest gain.

Total goodwill impairment recorded by European listed companies in the STOXX® Europe 600 was cut by a quarter, from €37 billion in 2015 to €28 billion in 2016, reflecting an improved outlook for the global economy. This was also the lowest level in aggregate goodwill impairment for the STOXX® Europe 600 since 2010, the onset of the Euro sovereign debt crisis. The number of goodwill impairment events also dropped from 146 to 121 for the same period. Hence, average impairment amount per event declined by nearly 8%, from €254 million in 2015 to €233 million in 2016.



* The STOXX® Europe 600 Index is derived from the STOXX® Europe Total Market Index and is a subset of the STOXX® Global 1800 Index. The index is weighted according to free-float market capitalisation. For more information, see <https://www.stoxx.com/index-details?symbol=SXXGR>.

† Growth in real gross domestic product (GDP) based on latest estimates at the time of writing. Source data retrieved on 8 December 2016, from <http://ec.europa.eu/eurostat>.





Diving deeper into the details, we find that seven out of the ten industries analysed saw their aggregate goodwill impairment amounts decrease – with Telecommunication Services and Consumer Discretionary being notable exceptions. The top three industries in 2016 with the highest decline in goodwill impairment amounts are as follows, in order of magnitude (€ billions):

- Financials & Real Estate (€14.3 to €7.9)
- Utilities (€9.0 to €4.7)
- Industrials (€4.0 to €1.4)

Despite the noticeable improvement, Financials & Real Estate remained the top industry with the highest aggregate goodwill impairment for a second consecutive year. In general, the effect of ECB's QE policies, conducive to an environment of ultra-low or even negative interest rates, has substantially hurt margins of European banks in 2015 and 2016.

Telecommunication Services followed in second place with an aggregate impairment amount of €7.9 billion, a fivefold increase from the 2015 level of €1.4 billion, primarily driven by a single impairment event. Absent that event, goodwill impairment would have increased by 40% from 2015. Energy saw the largest decline in the number of companies that recorded a goodwill impairment, reflecting a recovery in oil prices in 2016.

From a geographic perspective, the United Kingdom was the country with the highest aggregate amount of goodwill impairments in 2016 at €13.7 billion. This represented almost double the 2015 level (of €7.7 billion), but the top impairment event accounted for nearly 40% of the country's total impairment amount. In fact, absent the top goodwill impairment event of 2015 and 2016, aggregate goodwill impairment would have risen by 31% in the United Kingdom, with Brexit already showing some impact. In contrast, Germany, Switzerland, and Spain saw notable declines in 2016, a reflection of a stronger European economy.

When reviewing other benchmark country stock market indices, we observed the following trends in goodwill impairment (€ billions):

- Slight (8%) decline for CAC 40 companies (€5.9 to €5.4)
- Drop of nearly 60% for DAX 30 companies (€11.2 to €4.8)
- Significant decrease (80%) for IBEX 35 companies (€2.3 to €0.5)
- Twofold increase for FTSE 100 companies (€5.8 to €12.4)

For a list of the Top 10 largest goodwill impairments events within the STOXX® Europe 600 for 2016, refer to **Page 20**.

2016 STOXX® EUROPE 600 SUMMARY STATISTICS BY INDUSTRY

(TABLE 1)

Table 1 on the following page summarises the annual amount of goodwill impairments and the number of goodwill impairment events by industry occurring between 2012 and 2016 for the STOXX® Europe 600 index.* The table also provides the proportion of companies within each industry that carry goodwill and the subset of those that recorded a goodwill impairment.† This format allows for a ready comparison of data across industries over time.

Industries are listed in descending order of their total goodwill impairment amounts for 2016. For example, Financials & Real Estate top the industry list with a €7.9 billion aggregate goodwill impairment.

Additionally, the graphs on the right of Table 1 provide a quick comparison of (i) the preponderance of companies with goodwill within each industry in 2016 and (ii) the proportion of those companies that recorded a goodwill impairment. For example, the top row of Table 1 shows:

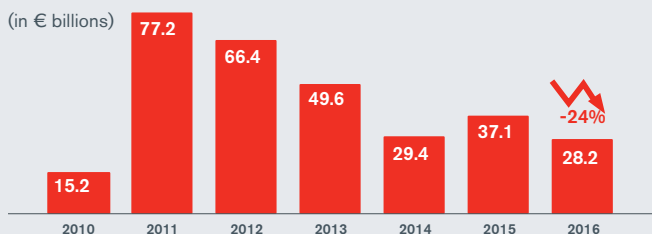


Goodwill Impairments

In Table 1, the *first row* of data for each industry presents the annual amounts of goodwill impairments (in € billions), immediately followed by the number of impairment events (shown in brackets).‡ Highlights include:

Total goodwill impairment (GWI) declined by 24% in 2016, following an improvement in the European economic outlook.

2016 marks the lowest level in total GWI for the STOXX® Europe 600 since 2010, the onset of the Euro sovereign debt crisis:



Top Industry in 2016 with:



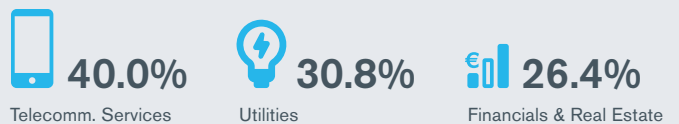
Percentage of Companies that Recorded a Goodwill Impairment

The *second row* in Table 1 indicates the proportion of all companies within each industry that recorded a goodwill impairment. Highlights include:

Energy registered the largest decline from the previous year:



Telecommunication Services saw largest rise, reaching the top of the list in 2016. Top 3 Industries with largest proportion of companies that recorded a GWI are as follows:



Percentage of Companies with Goodwill

Since companies that do not carry goodwill on their balance sheets are not exposed to a goodwill impairment, it is more meaningful to consider the proportion of companies with goodwill within each respective industry, which is provided in the *third row* of Table 1. Highlights include:

8 out of 10 industries registered an increase in companies carrying goodwill in 2016, reflecting a strong year for M&A.

Consumer Staples was the industry with the largest gain:



Percentage of Companies with Goodwill Recording a Goodwill Impairment

The *final (fourth) row* in Table 1 indicates the percentage of companies with goodwill that recorded a goodwill impairment. This differs from the second row, where the percentages are based on all companies in each industry, regardless of whether they carry goodwill. Highlights include:

Energy saw the largest decline in number of companies with goodwill that recorded a GWI, reflecting a recovery in oil prices:













* The information covering the period between 2012 and 2015 was carried forward from the 2016 Study.

† Appendix 1 describes the company base set selection and methodology used to generate the data in Tables 1 and 2 of this report.

‡ The number of events is broadly defined in this study: it captures whether a company has recorded any goodwill impairments in any given year (i.e., either “yes” or “no”). Thus, while a company could have recorded multiple goodwill impairments during a calendar year, it will still be considered a single event for purposes of this study.

2016 STOXX® EUROPE 600 GOODWILL IMPAIRMENT BY INDUSTRY

(TABLE 1)

		2012	2013	2014	2015	2016	2016	
		Goodwill Impairments: € billions (number of events)					Companies with GW	Percent Recording GWI
(Companies)		Percent of Total Companies that Recorded GWI						
		Percent of Companies with Goodwill						
		Percent of Companies with Goodwill that Recorded GWI						
	Financials & Real Estate (140)	16.1 (57) 42.5% 81.3% 52.3%	17.2 (44) 31.7% 81.3% 38.9%	6.7 (48) 33.3% 86.1% 38.7%	14.3 (38) 28.1% 86.7% 32.5%	7.9 (37) 26.4% 85.0% 31.1%	85%	31%
	Telecomm. Services (20)	23.4 (12) 57.1% 90.5% 63.2%	8.2 (9) 36.0% 92.0% 39.1%	8.9 (6) 28.6% 90.5% 31.6%	1.4 (7) 30.4% 95.7% 31.8%	7.0 (8) 40.0% 100.0% 40.0%	100%	40%
	Consumer Discretionary (87)	1.2 (23) 28.0% 90.2% 31.1%	1.7 (19) 22.4% 85.9% 26.0%	1.6 (24) 27.6% 89.7% 30.8%	1.9 (22) 25.6% 90.7% 28.2%	5.0 (18) 20.7% 95.4% 21.7%	95%	22%
	Utilities (26)	3.2 (6) 24.0% 92.0% 26.1%	9.0 (12) 48.0% 92.0% 52.2%	2.1 (8) 33.3% 91.7% 36.4%	9.0 (10) 41.7% 91.7% 45.5%	4.7 (8) 30.8% 92.3% 33.3%	92%	33%
	Industrials (118)	3.1 (32) 28.1% 96.5% 29.1%	2.7 (32) 27.1% 94.9% 28.6%	2.8 (31) 25.6% 95.0% 27.0%	4.0 (30) 23.6% 94.5% 25.0%	1.4 (20) 16.9% 95.8% 17.7%	96%	18%
	Consumer Staples (41)	2.2 (16) 32.0% 82.0% 39.0%	1.3 (16) 32.0% 80.0% 40.0%	2.6 (13) 27.1% 83.3% 32.5%	1.5 (9) 20.5% 86.4% 23.7%	0.9 (10) 24.4% 100.0% 24.4%	100%	24%
	Energy (22)	1.4 (6) 17.1% 88.6% 19.4%	1.1 (5) 15.2% 93.9% 16.1%	2.3 (13) 48.1% 81.5% 59.1%	2.5 (11) 47.8% 87.0% 55.0%	0.8 (5) 22.7% 86.4% 26.3%	86%	26%
	Information Technology (37)	1.4 (5) 14.7% 82.4% 17.9%	0.6 (5) 18.5% 92.6% 20.0%	1.3 (3) 10.3% 96.6% 10.7%	0.4 (4) 11.8% 94.1% 12.5%	0.2 (5) 13.5% 97.3% 13.9%	97%	14%
	Materials (55)	14.2 (17) 29.8% 82.5% 36.2%	7.5 (17) 30.4% 83.9% 36.2%	0.4 (10) 18.2% 89.1% 20.4%	2.1 (11) 20.8% 88.7% 23.4%	0.2 (8) 14.5% 92.7% 15.7%	93%	16%
	Healthcare (43)	0.2 (5) 13.9% 91.7% 15.2%	0.4 (3) 9.1% 93.9% 9.7%	0.8 (4) 11.4% 94.3% 12.1%	0.0 (4) 10.3% 89.7% 11.4%	0.1 (2) 4.7% 90.7% 5.1%	91%	5%
	Total* (589)	66.4 (179) 30.4% 87.6% 34.8%	49.6 (162) 27.4% 87.6% 31.3%	29.4 (160) 27.1% 89.7% 30.2%	37.1 (146) 24.8% 90.3% 27.5%	28.2 (121) 20.5% 92.5% 22.2%	93%	22%

* Amounts shown are aggregates. Differences due to rounding. Appendix 1 describes the company base set selection (589 companies) and methodology used to generate the data in Table 1.

2016 STOXX® EUROPE 600 SUMMARY STATISTICS BY COUNTRY

(TABLE 2)

Table 2 on the following page summarises the annual amount of goodwill impairments and the number of goodwill impairment events by country occurring between 2012 and 2016 for the STOXX® Europe 600 index.* Similar to Table 1, this table also provides the proportion of companies that carry goodwill and the subset of those that recorded a goodwill impairment, but within each country (instead of industry).

Countries are listed in descending order of their total goodwill impairment amounts for 2016. For example, in Table 2, the United Kingdom heads the country list with its aggregate goodwill impairment of €13.7 billion.

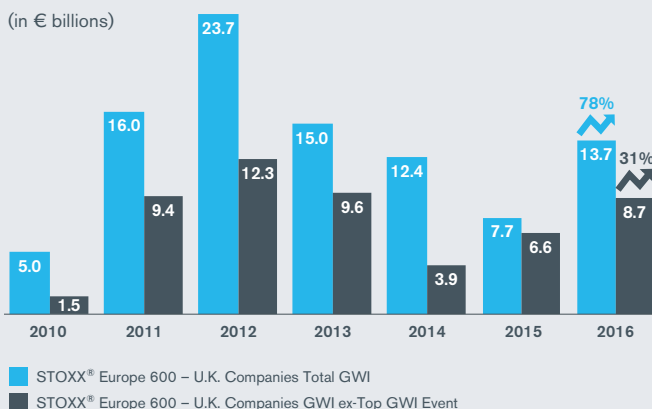
Additionally, the graphs on the right of Table 2 provide a quick comparison of (i) the preponderance of companies with goodwill within each country in 2016 and (ii) the proportion of those companies that recorded a goodwill impairment. For example, the top row of Table 2 shows:



Goodwill Impairments

In Table 2, the first row of data for each country presents the annual amounts of goodwill impairments (GWI in € billions), immediately followed by the number of impairment events (shown in brackets). Highlights include:

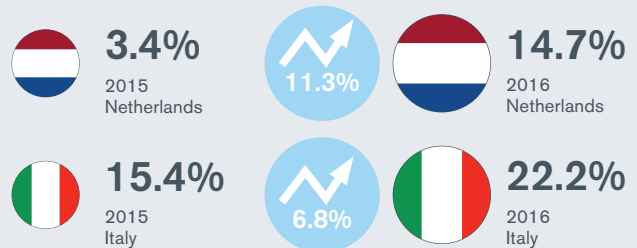
- The U.K. saw aggregate GWI almost double, reaching its highest level in 3 years, leading to its ranking as the #1 country with the largest amount of GWI in 2016.
- The largest U.K. impairment event has been disproportionately high over the last 7 years. Excluding the top event of 2015 and 2016, goodwill impairment rose 31% in 2016.



Percentage of Companies that Recorded a Goodwill Impairment

The second row in Table 2 indicates the proportion of all companies within each country that recorded a goodwill impairment. Highlights include:

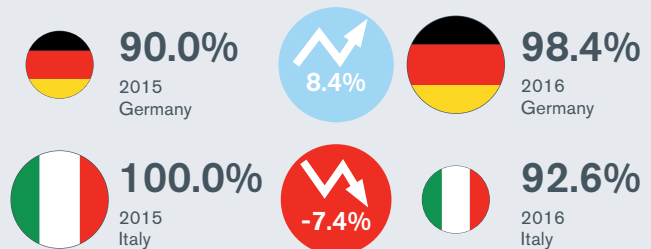
- 6 out of 8 countries saw a decline in 2016, a reflection of a stronger European economy.
- Netherlands and Italy were the exceptions, both rising to levels more in line with historical trends in each country:†



Percentage of Companies with Goodwill

The third row in Table 2 indicates the proportion of companies that carry goodwill within each respective country. Highlights include:

- 5 out of 8 countries registered a rising proportion of companies carrying goodwill in 2016, reflecting healthy M&A activity, despite uncertainty introduced by the Brexit vote.
- Germany was the country with the largest gain, while Italy was the only country showing a decline:†



Percentage of Companies with Goodwill Recording a Goodwill Impairment

The final (fourth) row in Table 2 indicates the percentage of companies with goodwill that recorded a goodwill impairment. Highlights include:

- Top 2 countries with largest decline in number of companies with goodwill that recorded a goodwill impairment:†




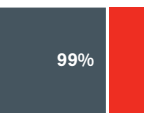

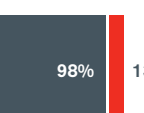

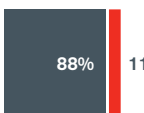

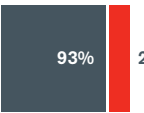

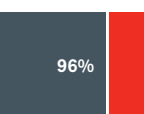

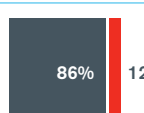

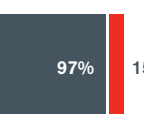

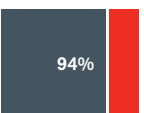
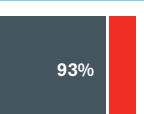


* The information covering the period between 2012 and 2015 was carried forward from the 2016 Study.

† Excluding group of "Other" countries.

2016 STOXX® EUROPE 600 GOODWILL IMPAIRMENT BY COUNTRY

(TABLE 2)

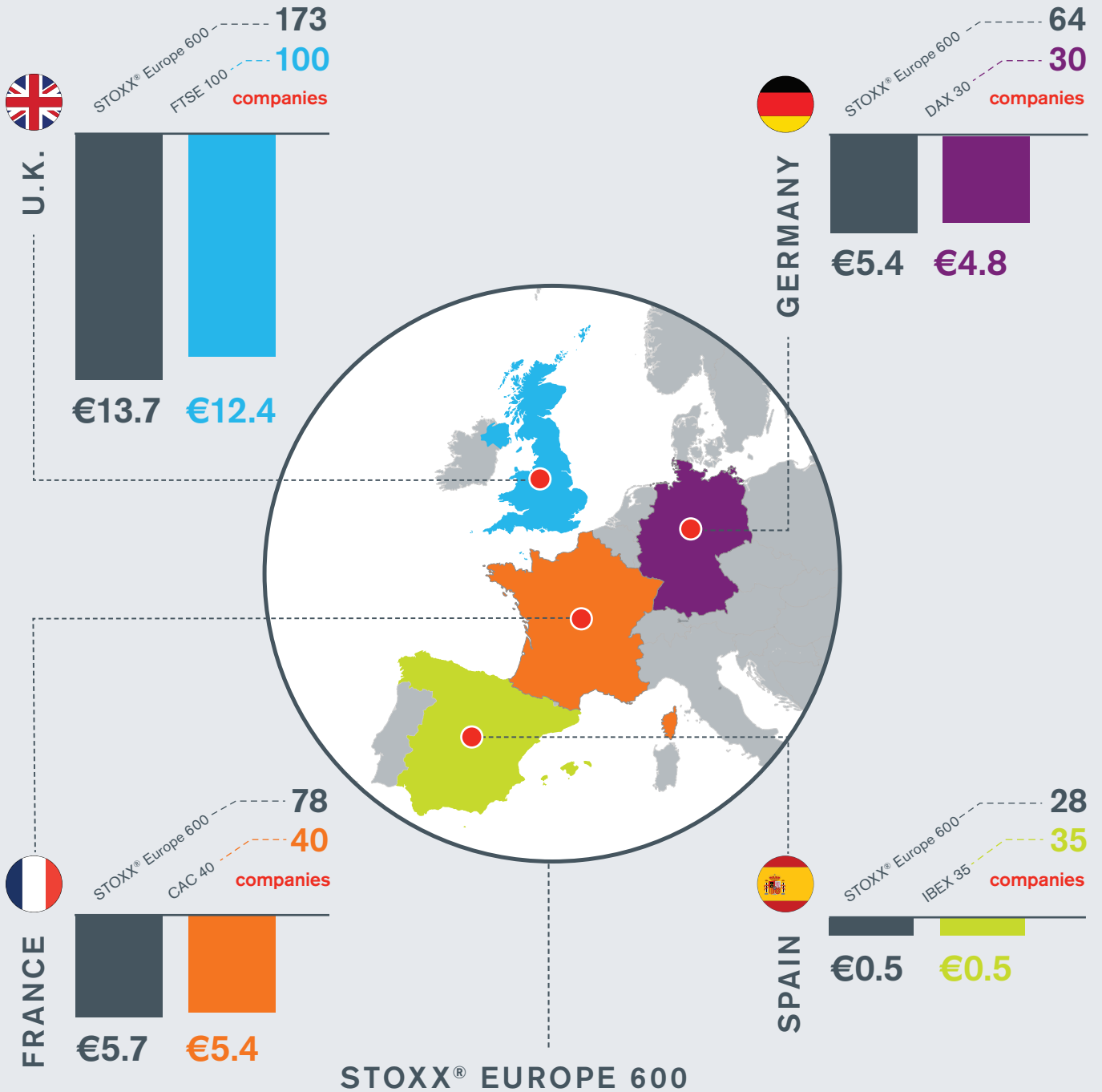
		2012	2013	2014	2015	2016		
		Goodwill Impairments: € billions (number of events)					Companies with GW	Percent Recording GWI
(Companies)		Percent of Total Companies that Recorded GWI						
		Percent of Companies with Goodwill						
		Percent of Companies with Goodwill that Recorded GWI						
	United Kingdom (173)	23.7 (38) 22.5% 78.1% 28.8%	15.0 (48) 26.2% 78.7% 33.3%	12.4 (38) 20.4% 82.3% 24.8%	7.7 (47) 25.7% 83.6% 30.7%	13.7 (38) 22.0% 88.4% 24.8%		88% 25%
	France (78)	9.6 (39) 46.4% 97.6% 47.6%	12.0 (32) 40.0% 97.5% 41.0%	3.7 (35) 43.8% 98.8% 44.3%	6.0 (30) 38.0% 98.7% 38.5%	5.7 (25) 32.1% 98.7% 32.5%		99% 33%
	Germany (64)	6.0 (18) 30.5% 84.7% 36.0%	2.9 (17) 28.8% 89.8% 32.1%	1.4 (16) 27.6% 94.8% 29.1%	11.6 (13) 21.7% 90.0% 24.1%	5.4 (8) 12.5% 98.4% 12.7%		98% 13%
	Sweden (42)	1.0 (9) 24.3% 81.1% 30.0%	0.5 (10) 25.0% 85.0% 29.4%	0.3 (7) 18.4% 86.8% 21.2%	0.4 (6) 15.0% 87.5% 17.1%	0.9 (4) 9.5% 88.1% 10.8%		88% 11%
	Italy (27)	11.2 (11) 37.9% 96.6% 39.3%	16.0 (8) 29.6% 96.3% 30.8%	2.9 (7) 26.9% 100.0% 26.9%	0.4 (4) 15.4% 100.0% 15.4%	0.6 (6) 22.2% 92.6% 24.0%		93% 24%
	Spain (28)	1.0 (7) 23.3% 90.0% 25.9%	0.5 (8) 30.8% 84.6% 36.4%	0.0 (5) 18.5% 92.6% 20.0%	1.5 (9) 32.1% 96.4% 33.3%	0.5 (8) 28.6% 96.4% 29.6%		96% 30%
	Switzerland (50)	3.3 (12) 25.5% 89.4% 28.6%	0.5 (9) 18.8% 83.3% 22.5%	2.7 (8) 16.7% 81.3% 20.5%	5.5 (10) 19.6% 84.3% 23.3%	0.5 (5) 10.0% 86.0% 11.6%		86% 12%
	Netherlands (34)	4.0 (12) 37.5% 93.8% 40.0%	0.9 (10) 30.3% 97.0% 31.3%	0.1 (8) 25.0% 93.8% 26.7%	0.4 (1) 3.4% 96.6% 3.6%	0.4 (5) 14.7% 97.1% 15.2%		97% 15%
	Other* (93)	6.6 (33) 32.7% 93.1% 35.1%	1.4 (20) 21.1% 93.7% 22.5%	5.9 (36) 37.5% 93.8% 40.0%	3.6 (26) 28.3% 94.6% 29.9%	0.4 (22) 23.7% 93.5% 25.3%		94% 25%
	Total† (589)	66.4 (179) 30.4% 87.6% 34.8%	49.6 (162) 27.4% 87.6% 31.3%	29.4 (160) 27.1% 89.7% 30.2%	37.1 (146) 24.8% 90.3% 27.5%	28.2 (121) 20.5% 92.5% 22.2%		93% 22%

* In 2016, countries grouped in the "Other" category include Austria, Belgium, Czech Republic, Denmark, Finland, Ireland, Luxembourg, Malta, Norway, and Portugal.

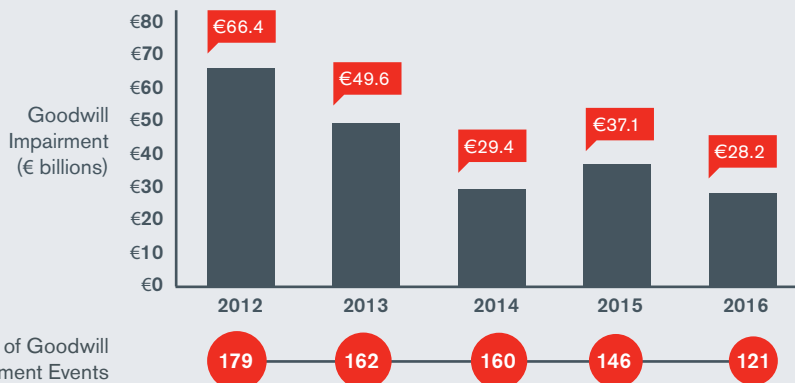
† Amounts shown are aggregates. Differences due to rounding. Appendix 1 describes the company base set selection (589 companies) and methodology used to generate the data in Table 2.

2016 GOODWILL IMPAIRMENT COUNTRY SPOTLIGHTS

(IN € BILLIONS)



STOXX® EUROPE 600



2016 COUNTRY SPOTLIGHTS

The Country Spotlights provide an in-depth focus on relevant goodwill-related metrics and statistics for the STOXX® Europe 600 companies based in each of the following four countries:

- France
- Germany
- Spain
- United Kingdom

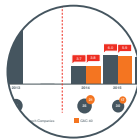
In addition, the Country Spotlights present similar metrics and statistics for companies in the following benchmark stock market indices:

- CAC 40 in France
- DAX 30 in Germany
- IBEX 35 in Spain
- FTSE 100 in the United Kingdom

The guide below provides a brief description of the components included in each of the Country Spotlights.*

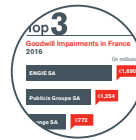
Goodwill Impairment Trends

Shows annual goodwill impairment amounts and number of goodwill impairment events over the last five years (2012 – 2016) for the STOXX® Europe 600 companies based in each country. The same data is provided over the last three years (2014 – 2016) for the member companies of the respective country's benchmark stock market index.



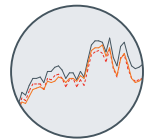
Top 3 Goodwill Impairments in the Country

Highlights the top 3 goodwill impairments recorded in the featured country during calendar year 2016.



Index

Shows the five-year returns of the STOXX® Europe 600 index overall and the STOXX® Europe 600 sub-index for the featured country, as well as the benchmark stock market index for that country. Summarises the relative performance of the featured country relative to the overall European market, reflecting what a €1 investment at the end of 2011 would be worth at the end of 2016.†



Country Index Comparison

Compares calendar-year 2016 statistics for companies in the STOXX® Europe 600 index based in each country to those of member companies of the respective country's benchmark stock market index.

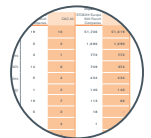
Specifically, it depicts: (i) Number of Companies; (ii) Percent of Companies with Goodwill; (iii) Percent of Companies

with Goodwill that Recorded a Goodwill Impairment; (iv) Loss Intensity ratio (goodwill impairment as a percentage of the prior year's total goodwill, or GWI/GW); (v) Median Market-to-Book ratio; and (vi) aggregate Goodwill Impairment amount.



Goodwill Impairments by Industry within the Country

Displays a breakdown by industry of the featured country's Goodwill Impairment statistics for calendar year 2016 for both STOXX® Europe 600 companies based in the country and member companies of the respective benchmark index.



* Financial data for all companies in the 2017 Study was adjusted, when applicable, to a calendar year end (rather than the most recent fiscal year end).

† STOXX® Europe 600 country sub-indices are constructed by the index provider for the highlighted countries. The company membership in these sub-indices is slightly different from the constituent companies included in the STOXX® Europe 600 for each of the four countries.

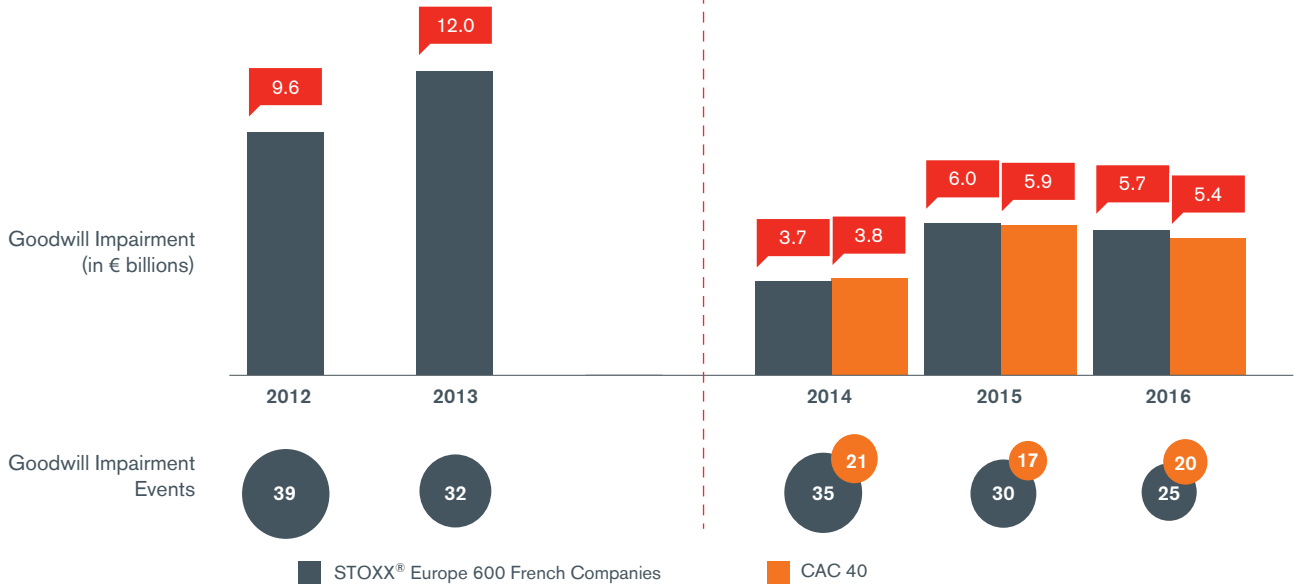


FRANCE



This two-page Country Spotlight compares goodwill impairment trends and statistics for two different indices: (i) the French companies within the STOXX® Europe 600 and (ii) the CAC 40 index constituents. The CAC 40 index is typically used as the benchmark stock market index in France, and most of its constituents are also members of the STOXX® Europe 600. In comparison, the number of French companies in the STOXX® Europe 600 is larger and therefore provides a broader perspective for goodwill impairment trends in the country. For example, the 40 companies in the CAC 40 index recorded an aggregate goodwill impairment of €5.4 billion in 2016, while the 78 French companies in the STOXX® Europe 600 recognised an aggregate amount of €5.7 billion, with 5 incremental impairment events observed.

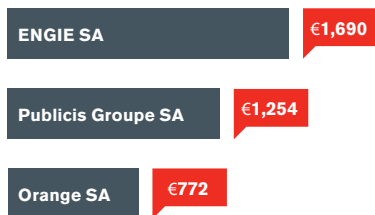
GOODWILL IMPAIRMENT TRENDS



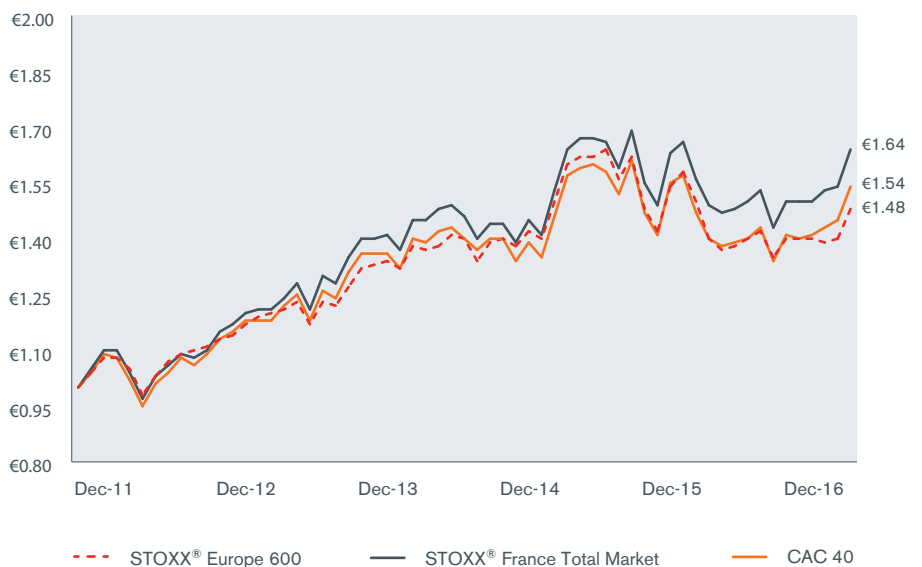
Top 3

Goodwill Impairments in France 2016

(in millions)



Cumulative 5-year Total Return from 2012 to 2016 (Year End 2011 = €1)

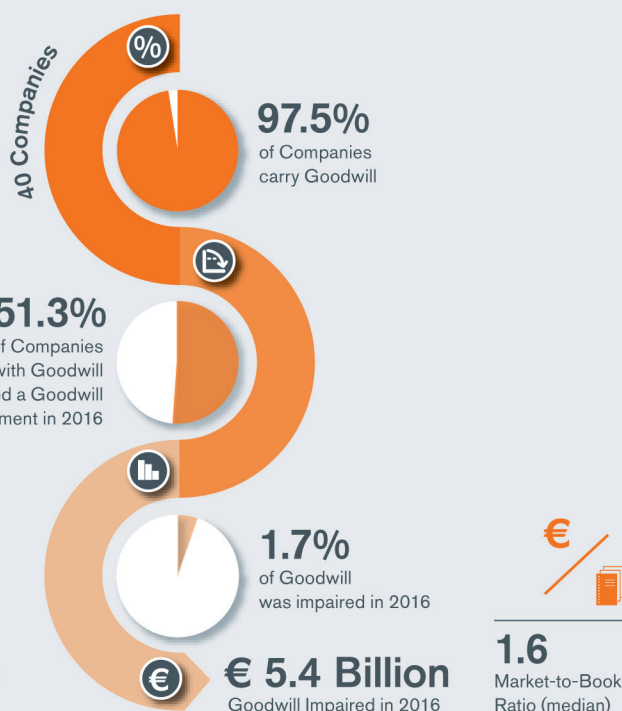
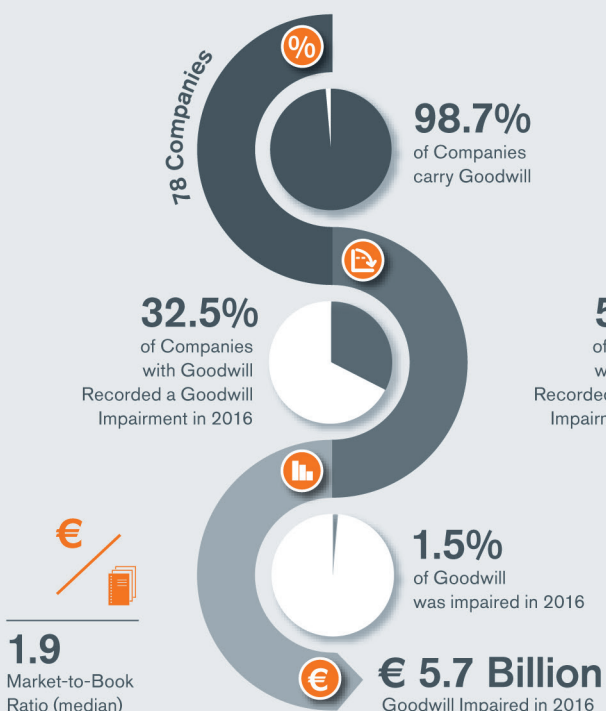




2016 FRANCE SPOTLIGHT

STOXX® EUROPE 600 FRENCH COMPANIES

CAC 40



Industries*	Number of Companies		Total Goodwill Impairment (€ millions)		Number of Events	
	STOXX® Europe 600 French Cos.	CAC 40	STOXX® Europe 600 French Cos.	CAC 40	STOXX® Europe 600 French Cos.	CAC 40
Consumer Discretionary	19	10	1,736	1,619	8	6
Utilities	5	2	1,690	1,690	2	2
Telecomm. Services	3	1	772	772	1	1
Financials & Real Estate	14	6	749	674	4	3
Consumer Staples	5	4	434	434	3	3
Energy	1	2	140	140	1	1
Industrials	19	7	113	66	4	3
Information Technology	5	2	18	0	1	0
Materials	3	4	1	37	1	1
Healthcare	4	2	0	0	0	0
Total†	78	40	5,653	5,433	25	20

* Industries are listed in descending order of their total goodwill impairment amounts for 2016.

† Amounts shown are aggregates. Differences due to rounding.

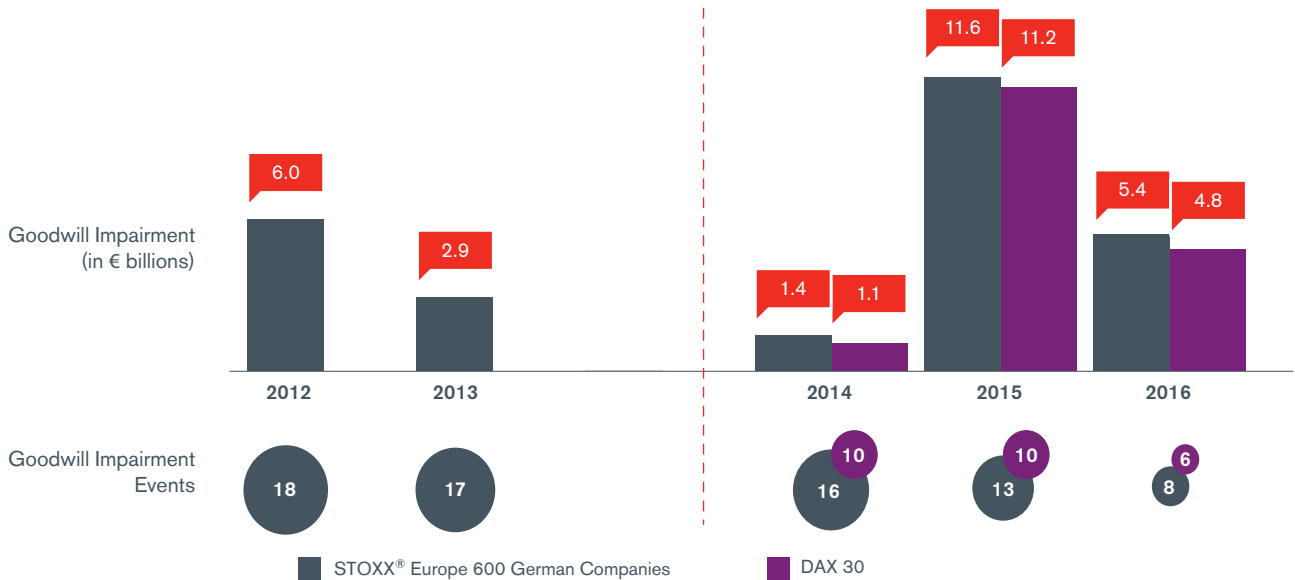


GERMANY



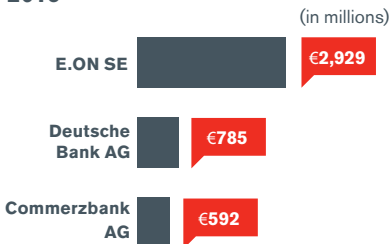
This two-page Country Spotlight compares goodwill impairment trends and statistics for two different indices: (i) the German companies within the STOXX® Europe 600 and (ii) the DAX 30 index constituents. The DAX 30 index is typically used as the benchmark stock market index in Germany, and most of its constituents are also members of the STOXX® Europe 600. In comparison, the number of German companies in the STOXX® Europe 600 is larger and therefore provides a broader perspective for goodwill impairment trends in the country. For example, the 30 companies in the DAX 30 index recorded an aggregate goodwill impairment of €4.8 billion in 2016, while the 64 German companies in the STOXX® Europe 600 recognised an aggregate amount of €5.4 billion, with 2 incremental impairment events observed.

GOODWILL IMPAIRMENT TRENDS

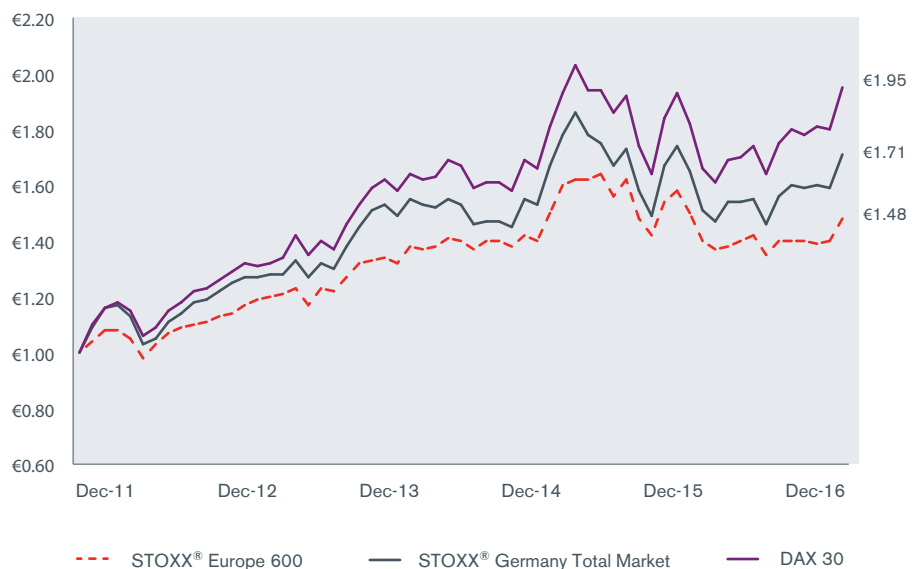


Top 3

Goodwill Impairments in Germany 2016



Cumulative 5-year Total Return from 2012 to 2016 (Year End 2011 = €1)

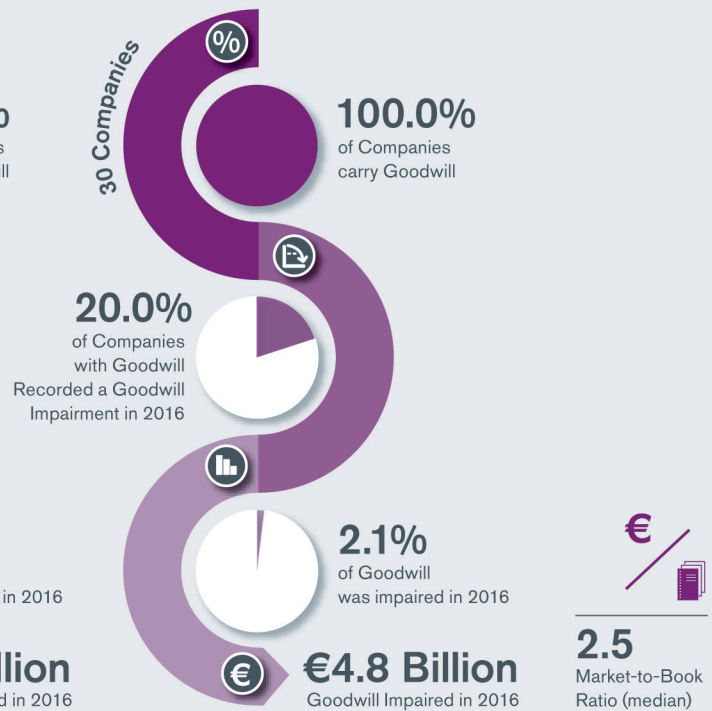
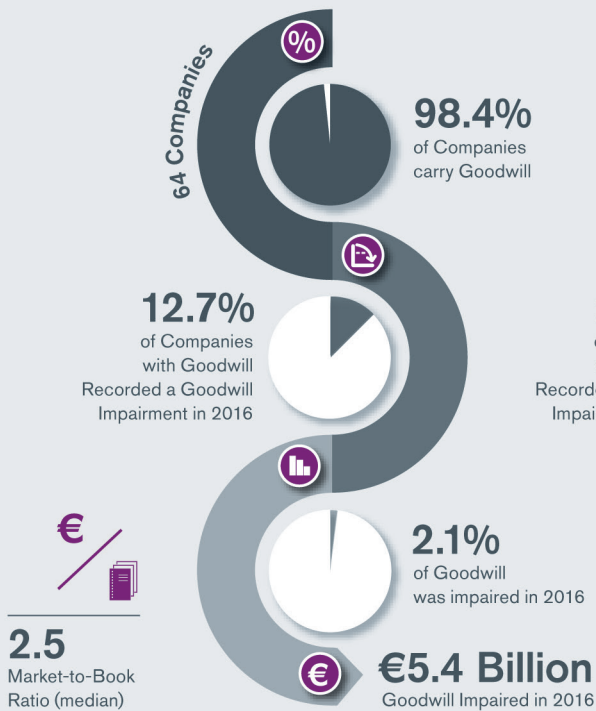




2016 GERMANY SPOTLIGHT

STOXX® EUROPE 600 GERMAN COMPANIES

DAX 30



Industries*	Number of Companies		Total Goodwill Impairment (€ millions)		Number of Events	
	STOXX® Europe 600 German Cos.	DAX 30	STOXX® Europe 600 German Cos.	DAX 30	STOXX® Europe 600 German Cos.	DAX 30
Utilities	3	2	2,929	2,929	1	1
Financials & Real Estate	11	6	1,942	1,405	4	3
Telecomm. Services	2	1	471	471	1	1
Materials	10	4	41	41	1	1
Industrials	12	3	22	0	1	0
Consumer Discretionary	12	6	0	0	0	0
Consumer Staples	2	2	0	0	0	0
Energy	0	0	0	0	0	0
Healthcare	7	4	0	0	0	0
Information Technology	5	2	0	0	0	0
Total†	64	30	5,406	4,846	8	6

* Industries are listed in descending order of their total goodwill impairment amounts for 2016.

† Amounts shown are aggregates. Differences due to rounding.

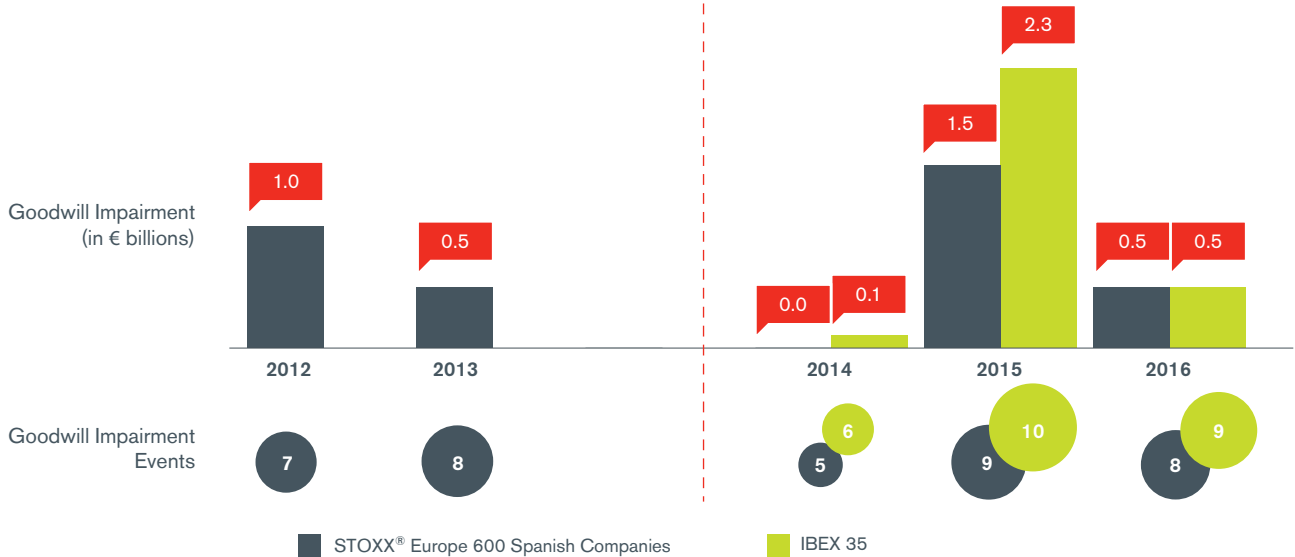


SPAIN



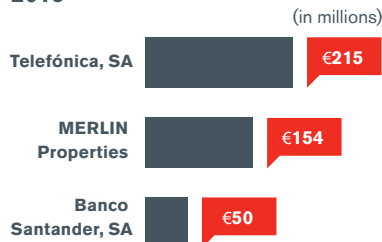
This two-page Country Spotlight compares goodwill impairment trends and statistics for two different indices: (i) the Spanish companies within the STOXX® Europe 600 and (ii) the IBEX 35 index constituents. The IBEX 35 index is typically used as the benchmark stock market index in Spain, and most of its constituents are also members of the STOXX® Europe 600. In 2016, there was no material difference between the two indices, as aggregate goodwill impairment recorded for both indices was approximately €0.5 billion, with 1 incremental impairment event observed for IBEX 35 members.

GOODWILL IMPAIRMENT TRENDS

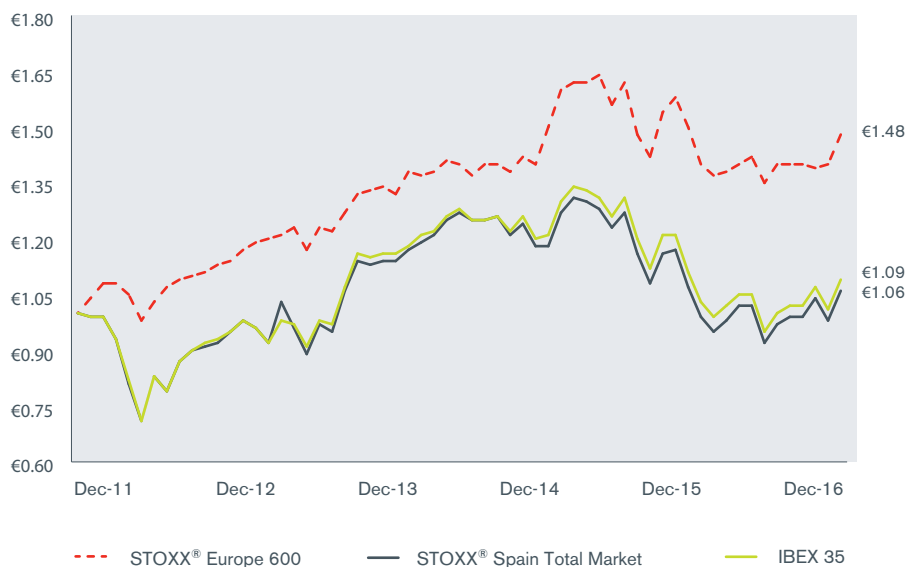


Top 3

Goodwill Impairments in Spain 2016



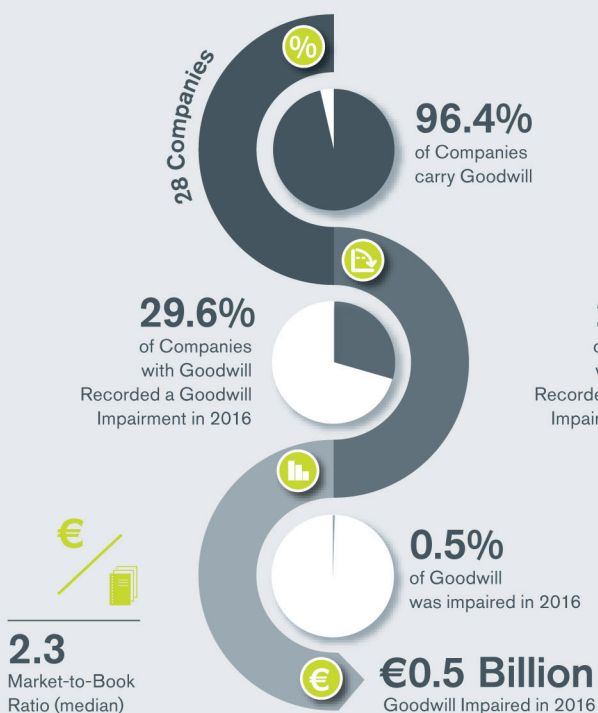
Cumulative 5-year Total Return from 2012 to 2016 (Year End 2011 = €1)



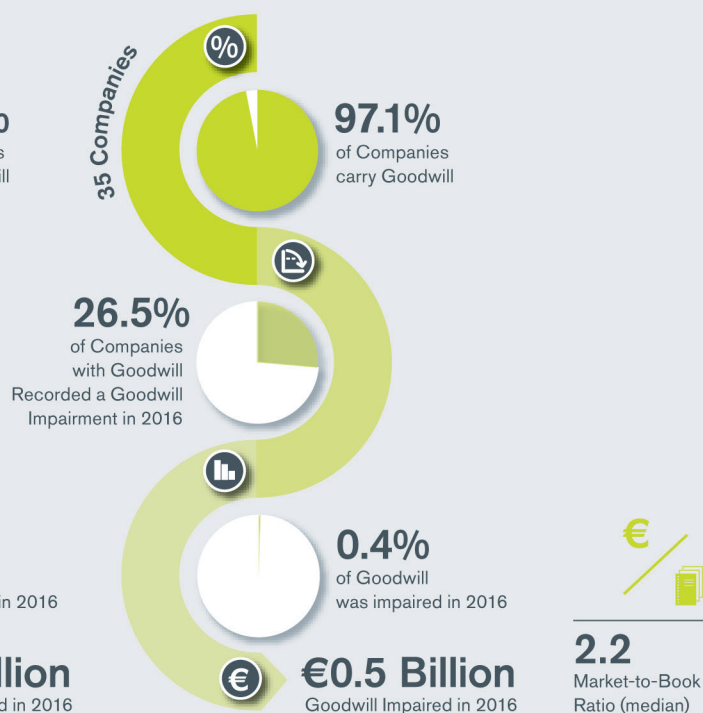


2016 SPAIN SPOTLIGHT

STOXX® EUROPE 600 SPANISH COMPANIES



IBEX 35



Industries*	Number of Companies		Total Goodwill Impairment (€ millions)		Number of Events	
	STOXX® Europe 600 Spanish Cos.	IBEX 35	STOXX® Europe 600 Spanish Cos.	IBEX 35	STOXX® Europe 600 Spanish Cos.	IBEX 35
Telecomm. Services	2	2	215	215	1	1
Financials & Real Estate	10	9	189	189	3	3
Industrials	6	6	31	31	2	2
Energy	2	3	20	20	1	1
Consumer Staples	2	2	0	0	1	1
Other	6	13	0	1	0	1
Total†	28	35	456	457	8	9

* Industries are listed in descending order of their total goodwill impairment amounts for 2016.

† Amounts shown are aggregates. Differences due to rounding.

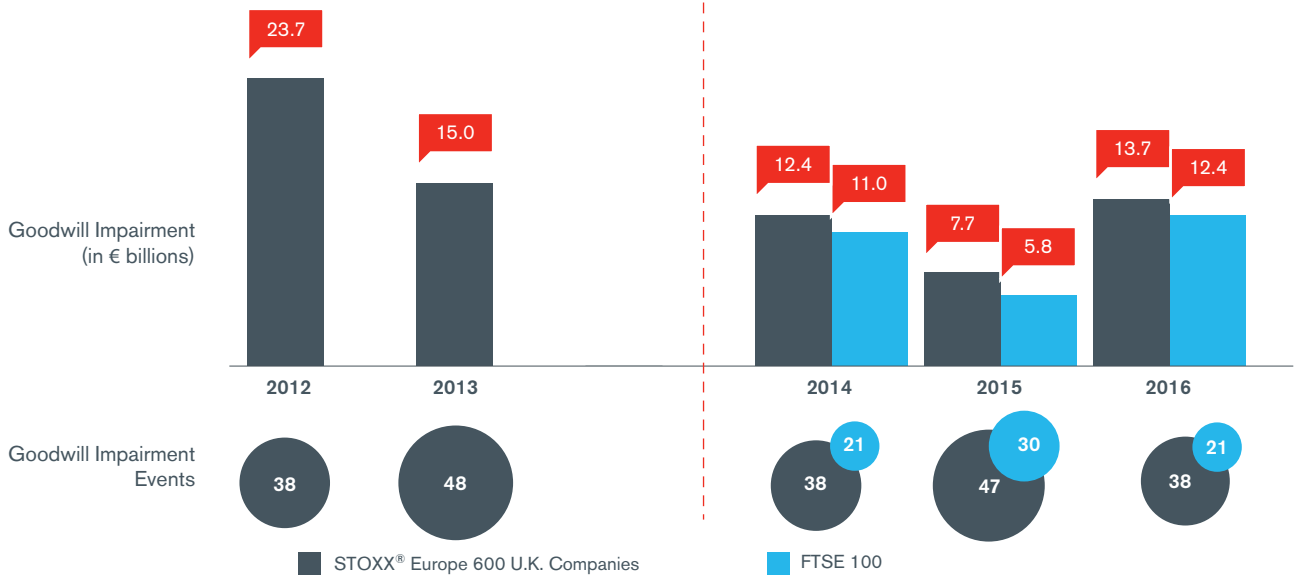


United Kingdom



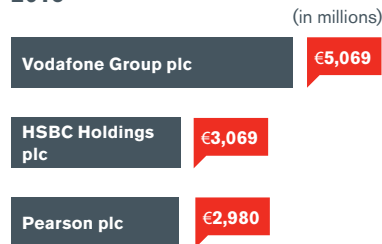
This two-page Country Spotlight compares goodwill impairment trends and statistics for two different indices: (i) the U.K. companies within the STOXX® Europe 600 and (ii) the FTSE 100 index constituents. The FTSE 100 index is typically used as the benchmark stock market index in the U.K., and most of its constituents are also members of the STOXX® Europe 600. In comparison, the number of U.K. companies in the STOXX® Europe 600 is larger and therefore provides a broader perspective for goodwill impairment trends in the country. For example, the 100 companies in the FTSE 100 index recorded an aggregate goodwill impairment of €12.4 billion in 2016, while the 173 U.K. companies in the STOXX® Europe 600 recognised an aggregate amount of €13.7 billion, with 17 incremental impairment events observed.

GOODWILL IMPAIRMENT TRENDS

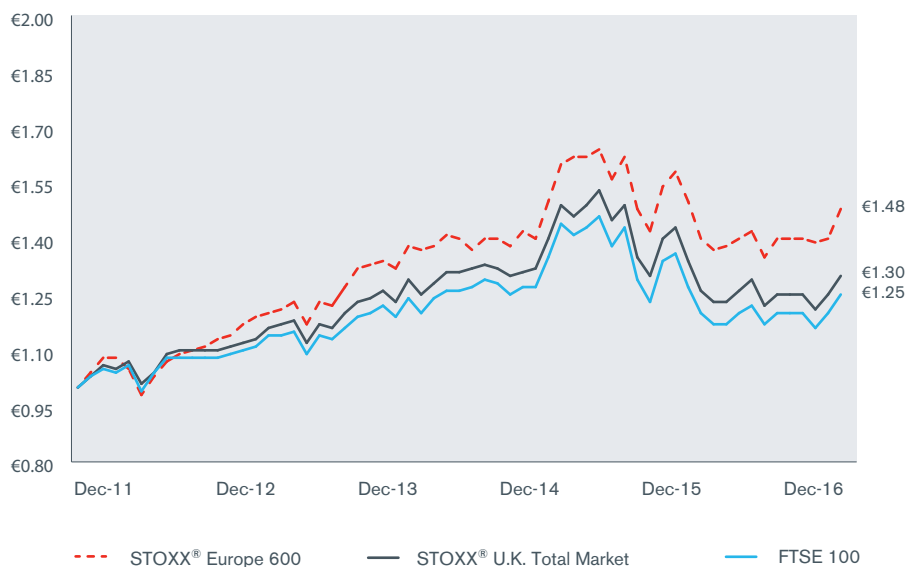


Top 3

Goodwill Impairments in the U.K. 2016



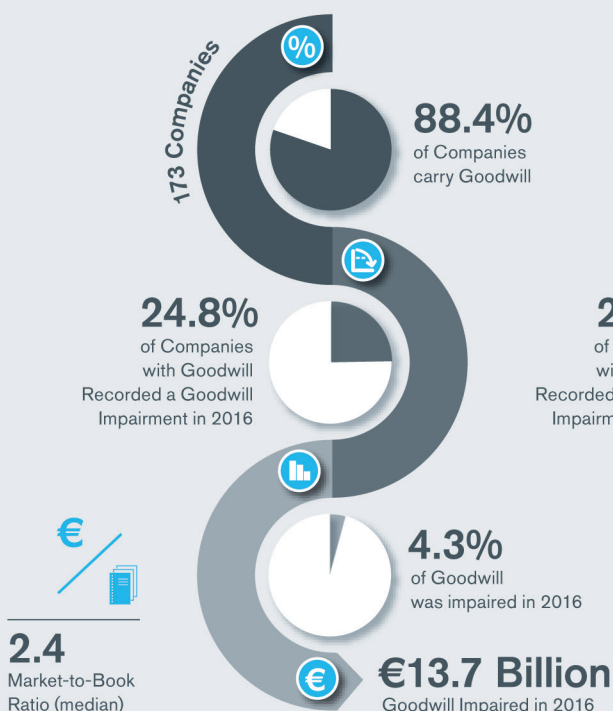
Cumulative 5-year Total Return from 2012 to 2016 (Year End 2011 = €1)



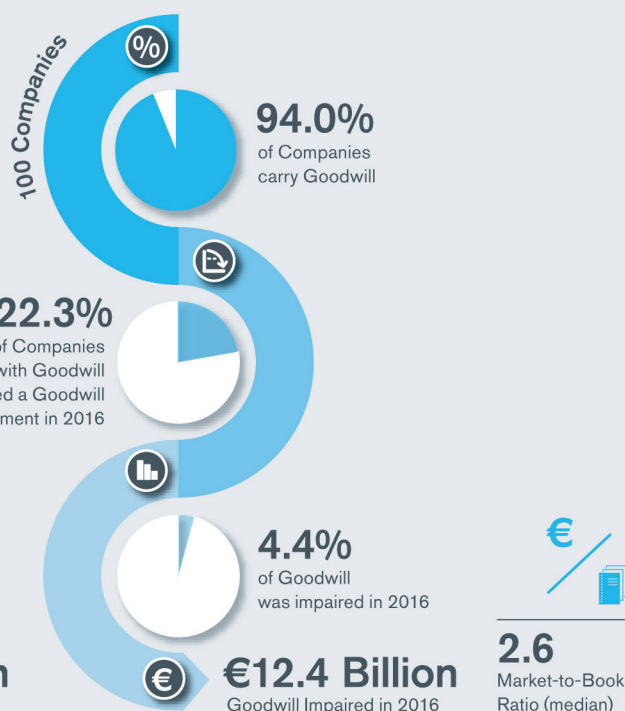


2016 U.K. SPOTLIGHT

STOXX® EUROPE 600 U.K. COMPANIES



FTSE 100



Industries*	Number of Companies		Total Goodwill Impairment (€ millions)		Number of Events	
	STOXX® Europe 600 U.K. Cos.	FTSE 100	STOXX® Europe 600 U.K. Cos.	FTSE 100	STOXX® Europe 600 U.K. Cos.	FTSE 100
Telecomm. Services	3	2	5,069	5,069	1	1
Financials & Real Estate	42	22	3,778	3,472	10	7
Consumer Discretionary	31	21	3,243	3,156	8	5
Industrials	35	16	817	561	7	4
Energy	7	2	512	0	2	0
Information Technology	13	3	162	0	4	0
Consumer Staples	11	10	85	76	3	2
Materials	16	12	39	1	2	1
Utilities	7	5	21	21	1	1
Healthcare	8	7	0	0	0	0
Total†	173	100	13,727	12,356	38	21

* Industries are listed in descending order of their total goodwill impairment amounts for 2016.

† Amounts shown are aggregates. Differences due to rounding.

2016 STOXX® EUROPE 600 INDUSTRY SPOTLIGHT

The STOXX® Europe 600 Industry Spotlight provides an in-depth focus on relevant metrics and statistics for the index. The Industry Spotlight displays a variety of data for calendar year 2016.

The guide below provides a brief description of the components of the STOXX® Europe 600 Industry Spotlight.

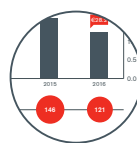
Goodwill Trends

Shows aggregate goodwill balances for year-end 2011 and 2016, as well as the cumulative goodwill additions and impairments over that 5-year period for companies in the STOXX® Europe 600 index.*



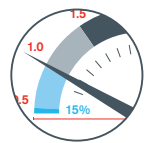
Impairment History

Presents annual goodwill impairment amounts and number of impairment events for the STOXX® Europe 600 index over the 2012-2016 period. The median market-to-book ratio (blue line) provides some context for the annual impairment measures.



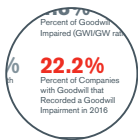
Market-to-Book Ratio Distribution

Displays the percentage of companies in the index with a market-to-book ratio below and above 1.0, respectively. The blue shaded area to the left of the needle further separates the number of companies with a ratio above and below 0.5. Although not predictive on its own, companies with a low market-to-book ratio may be at a greater risk of impairment.



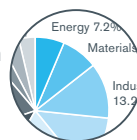
Summary Statistics

Depicts the following calendar-year 2016 statistics: (i) Number of Companies; (ii) Loss Intensity ratio (goodwill impairment as a percentage of the prior year's total goodwill, or GWI/GW); (iii) Median Market-to-Book ratio (iv) Percent of Companies with Goodwill; and (v) Percent of Companies with Goodwill that Recorded a Goodwill Impairment within the STOXX® Europe 600 index.



Size of Industry

Represents the size of each of the 10 industries relative to the combined size of all companies included in the STOXX® Europe 600 index, measured in terms of market capitalization at the end of 2016.



Index

Shows the five-year cumulative returns of the 10 industry sector sub-indices and the STOXX® Europe 600 index overall over the 2012-2016 period.† Summarises the relative performance of each industry, reflecting what a €1 investment at the end of 2011 would be worth at the end of 2016.

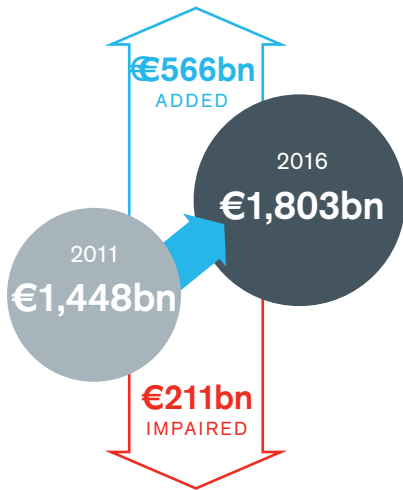


* Because companies regularly move into and out of the STOXX® Europe 600 Index (the typical annual churn rate is approximately 40 companies), this comparison does not include the same set of companies every year, which may slightly distort the figures presented for goodwill trends.

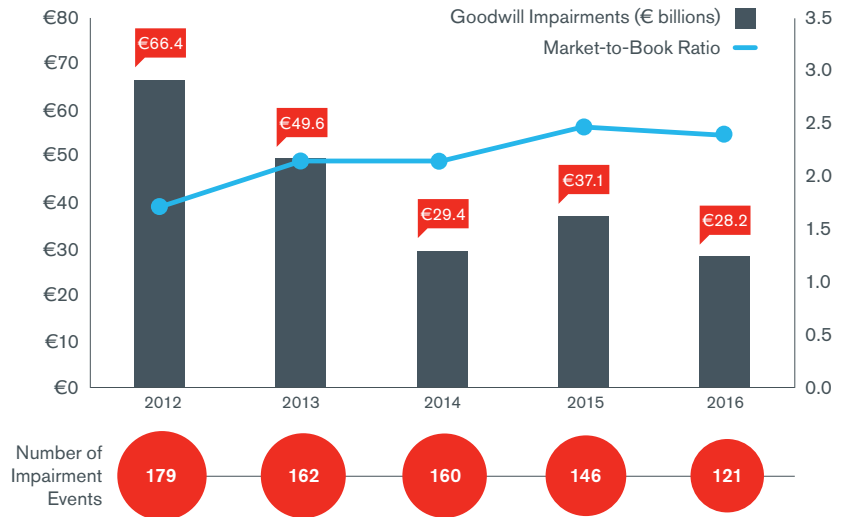
† STOXX® Europe 600 industry sub-indices are constructed by the index provider for ten industries based on the Industry Classification Benchmark. This is a different industry classification from that used throughout the 2017 Study, which is based on GICS codes. Although the industry definitions are broadly similar, the naming convention is slightly different. For example, for Energy we show the performance of the STOXX® Europe 600 Oil & Gas sub-index.

2016 STOXX® EUROPE 600 INDUSTRY SPOTLIGHT

Goodwill Trends 2011 – 2016

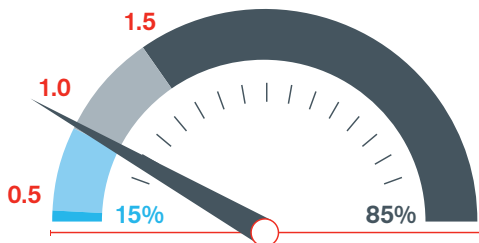


Goodwill Impairment History



Market-to-Book Ratio Distribution

(Based on Number of Companies)



(Percentages of Companies Below / Above 1.0)

589
Companies

1.8%
Percent of Goodwill Impaired (GWI/GW ratio)

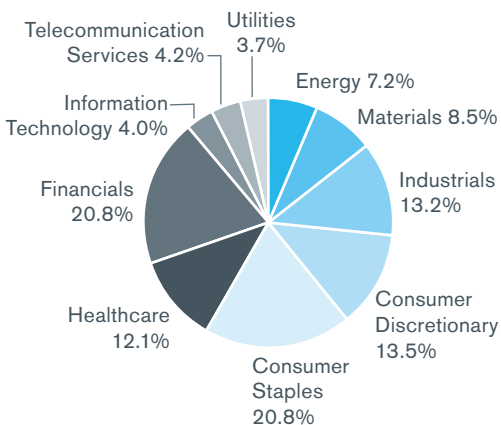
2.4
Market-to-Book Ratio (median)

92.5%
Companies with Goodwill

22.2%
Percent of Companies with Goodwill that Recorded a Goodwill Impairment in 2016

Size of Industry – 2016

(Relative to the STOXX® Europe 600 index Total Market Cap)



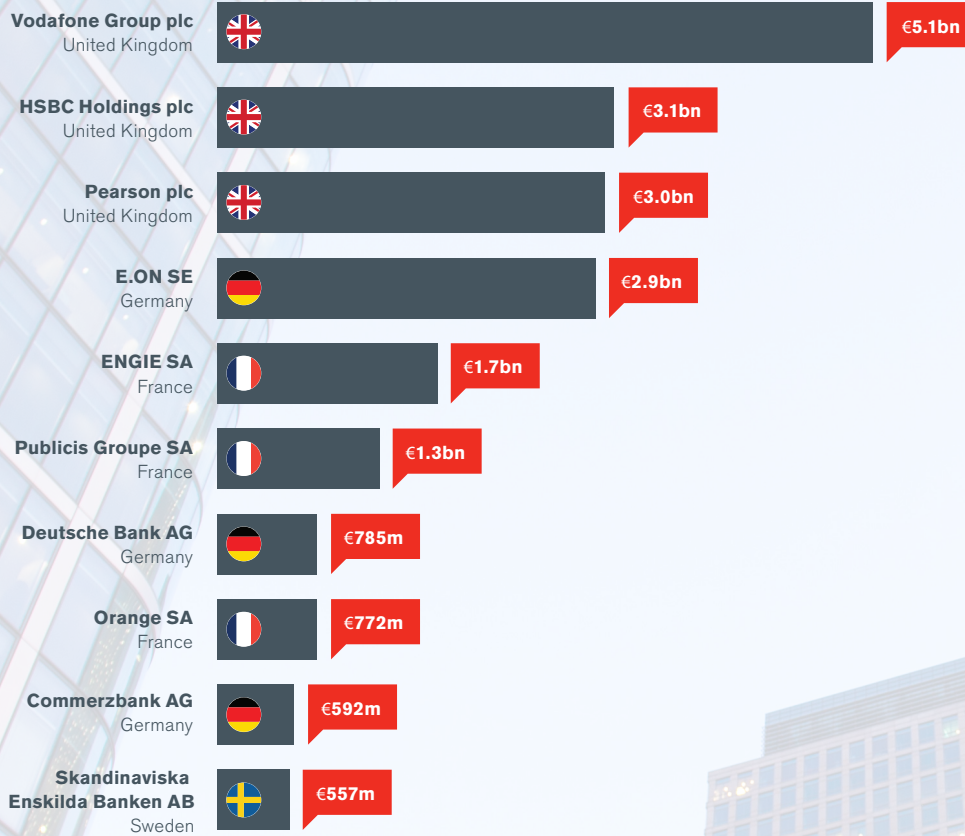
Cumulative 5-year Total Return by Industry from 2012 to 2016

Index (Year-End 2011 = €1)



Top 10

GOODWILL IMPAIRMENTS* 2016



* Financial data for all companies in the 2017 Study was adjusted, when applicable, to a calendar year-end (rather than the most recent fiscal year-end). Financial data was also adjusted to include goodwill impairment amounts disclosed within discontinued operations or disposal groups, when identified.

STOXX® EUROPE 600 GOODWILL IMPAIRMENTS BY SUB-INDUSTRY CALENDAR YEAR 2016

Goodwill Intensity:

- Goodwill to Total Assets (GW/TA)

Loss Intensity:

- Goodwill Impairment to Goodwill (GWI/GW)

List of Industries by Industry Group, 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							€ 0.8 (industry group total)	
1010	Energy	22	86.4%	2.7%	3.1%	26.3%	€ 0.8	1.6
Materials							€ 0.2 (industry group total)	
1510	Materials	55	92.7%	11.7%	0.1%	15.7%	€ 0.2	2.2
Industrials							€ 1.4 (industry group total)	
2010	Capital Goods	71	95.8%	17.0%	0.6%	19.1%	€ 1.0	3.0
2020	Commercial & Professional Services	26	100.0%	35.4%	0.3%	15.4%	€ 0.1	3.8
2030	Transportation	21	90.5%	9.2%	0.9%	15.8%	€ 0.3	2.4
Consumer Discretionary							€ 5.0 (industry group total)	
2510	Automobiles & Components	14	100.0%	4.3%	0.1%	14.3%	€ 0.0	2.2
2520	Consumer Durables & Apparel	23	87.0%	14.8%	1.3%	20.0%	€ 0.4	3.0
2530	Consumer Services	16	100.0%	24.3%	0.0%	6.3%	€ 0.0	2.6
2540	Media	21	100.0%	30.7%	5.0%	42.9%	€ 4.5	2.4
2550	Retailing	13	92.3%	12.7%	0.3%	16.7%	€ 0.1	3.5
Consumer Staples							€ 0.9 (industry group total)	
3010	Food & Staples Retailing	12	100.0%	13.0%	0.1%	41.7%	€ 0.0	2.1
3020	Food, Beverage & Tobacco	23	100.0%	34.5%	0.3%	17.4%	€ 0.5	3.0
3030	Household & Personal Products	6	100.0%	29.0%	1.1%	16.7%	€ 0.4	3.9
Healthcare							€ 0.1 (industry group total)	
3510	Health Care Equipment & Services	15	100.0%	39.0%	0.0%	6.7%	€ 0.0	3.4
3520	Pharmaceuticals, Biotechnology & Life Sciences	28	85.7%	24.0%	0.1%	4.2%	€ 0.1	3.7
Financials							€ 7.9 (industry group total)	
4010	Banks	39	89.7%	0.5%	4.5%	40.0%	€ 5.7	0.8
4020	Diversified Financials	38	89.5%	1.1%	2.0%	23.5%	€ 1.2	1.7
4030	Insurance	35	100.0%	0.9%	0.5%	22.9%	€ 0.3	1.1
6010	Real Estate	28	53.6%	1.5%	13.5%	46.7%	€ 0.7	1.1
Information Technology							€ 0.2 (industry group total)	
4510	Software & Services	23	100.0%	41.6%	0.1%	17.4%	€ 0.0	3.9
4520	Technology Hardware & Equipment	8	87.5%	18.9%	0.9%	14.3%	€ 0.1	2.7
4530	Semiconductors & Semiconductor Equipment	6	100.0%	16.2%	0.0%	0.0%	€ 0.0	2.6
Telecommunications Services							€ 7.0 (industry group total)	
5010	Telecommunication Services	20	100.0%	21.6%	4.3%	40.0%	€ 7.0	2.9
Utilities							€ 4.7 (industry group total)	
5510	Utilities	26	92.3%	7.3%	4.7%	33.3%	€ 4.7	1.4

APPENDIX 1

COMPANY BASE SET SELECTION AND METHODOLOGY

The 2017 Study focused on financial data for companies in the STOXX® Europe 600 Index for the period 2012-2016. In addition, the 2017 Study includes for the first-time goodwill impairment metrics of four additional country benchmark stock indices: CAC 40 (in France), DAX 30 (in Germany), IBEX 35 (in Spain), and FTSE 100 (in the United Kingdom). Accordingly, data for the constituents of each of the four indices was collected for the 2014-2016 period, for comparison purposes. The primary sources of data for the 2016 Study were S&P Global's Capital IQ database and individual company annual and interim financial reports.* The following procedures were used to arrive at the 2017 Study dataset, which was then used to calculate all ratios and summary statistics throughout the 2017 Study:

- The 2017 Study used index constituents at the end of calendar year 2016 to form the annual dataset.†
- The dataset was assessed each year to identify any index constituents with a controlling interest in another constituent 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 in the index that met this criterion. We also excluded duplicates within the index that are dual listed on European exchanges. These adjustments had no impact on the number of companies included in each of the four country stock indices.‡

- Finally, to allow for comparison of goodwill impairment amounts across companies, countries, and industries, the financial data for each company in the index with a non-euro reporting currency was translated into euros using the foreign exchange rate assumptions listed in **Appendix 2** to this report. Regardless of fiscal year-end choices, for simplicity and comparability reasons, goodwill impairments (and other financial metrics) were translated into euros using the applicable spot foreign exchange rate as of 31 December of the applicable year, with a few exceptions.§
- The resulting dataset was used to calculate all ratios and summary statistics throughout the 2017 Study.

* Although most of the companies in the STOXX® Europe 600 Index prepare financial statements in accordance with IFRS, some use other accounting standards, such as Swiss GAAP or U.S. GAAP. Neither the 2017 Study nor prior years' studies have made any adjustments for differences in accounting standards applied by companies within the index. Generally, since only a small proportion of the companies in the index do not use IFRS, the inclusion of those companies did not have a material impact on the statistics reported in prior years' studies. The only exception relates to 2015 statistics, where, the share of the total goodwill impairment amount represented by non-IFRS filers was more meaningful relative to prior years. Specifically, in calendar 2015, the 15 companies within the dataset filing under either U.S. or Swiss GAAP accounted for 13% of the 2015 aggregate goodwill impairment amount. Nevertheless, nearly three-quarters of that figure was driven by a single large impairment event by a Swiss company in the Financial Services industry. Other countries and industries were therefore minimally impacted. In contrast, all the companies recording goodwill impairments in 2016 filed in accordance to IFRS and therefore this was not an issue for the latest (2016) metrics reported in the 2017 Study.

† Source: Bloomberg. The index is reviewed regularly for component changes and is typically adjusted on a quarterly basis. In the 2014 Study, the methodology was enhanced to utilise index members as of the end of the year starting with 2013 data. To keep the information consistent with prior studies, the information for 2012 was still collected based on index members at the beginning of the calendar year (i.e., 1 January 2012).

‡ This analysis resulted in the elimination of 12, 9, 9, 12 and 11 companies from the dataset in 2012, 2013, 2014, 2015, and 2016, respectively. Consequently, Tables 1 and 2 show that 2016 statistics were computed for 589 companies (600 companies in the STOXX® Europe 600 Index, less the 11 that were eliminated from the dataset). These adjustments did not impact the number of companies included in each of the country indices: 40, 30, 35 and 100 companies were included respectively in the CAC 40, Dax 30, IBEX 35 and FTSE 100 indices in each year.

§ Because of the fiscal year-end to calendar year-end adjustment, goodwill impairment amounts for some companies were calculated using financial results across different fiscal years. In such cases, spot foreign exchange rates corresponding to the appropriate fiscal year-end dates were used to convert the impairment amounts into euros.

APPENDIX 2

FOREIGN EXCHANGE RATE ASSUMPTIONS

Year	Currency	Per €1	Year	Currency	Per €1
2016	CHF	1.072	30/09/2016	GBP	0.791
	DKK	7.435	30/6/2016	GBP	0.835
	GBP	0.855	31/3/2016	GBP	0.863
	NOK	9.083	30/9/2015	GBP	0.738
	SEK	9.582	30/6/2015	GBP	0.708
	CZK	27.020	31/3/2015	GBP	0.723
	USD	1.056	31/12/2014	GBP	0.777
2015	CHF	1.087	30/09/2014	GBP	0.778
	CZK	27.020	30/06/2014	GBP	0.800
	DKK	7.463	31/03/2014	GBP	0.827
	GBP	0.736	30/11/2013	GBP	0.847
	NOK	9.614	30/09/2013	GBP	0.836
	SEK	9.168	14/09/2013	GBP	0.837
	USD	1.086	31/08/2013	GBP	0.853
2014	CHF	1.202	30/04/2013	GBP	0.846
	DKK	7.447	31/03/2013	GBP	0.844
	GBP	0.777	23/02/2013	GBP	0.862
	NOK	9.056	31/01/2013	GBP	0.857
	SEK	9.471	31/03/2012	GBP	0.834
	USD	1.210	30/09/2011	GBP	0.860
	2013	CHF	1.226	30/04/2011	GBP
DKK		7.460	31/03/2011	GBP	0.884
GBP		0.831	31/01/2011	GBP	0.855
NOK		8.364			
SEK		8.853			
USD		1.377			
2012	CHF	1.207			
	DKK	7.461			
	GBP	0.811			
	NOK	7.341			
	SEK	8.585			
2011	CHF	1.319			
	DKK	7.433			
	GBP	0.835			
	NOK	7.746			
	SEK	8.918			
	USD	1.299			

Source: S&P Global's Capital IQ®

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