

DUFF & PHELPS

A KROLL BUSINESS

2021 European Goodwill Impairment Study

DECEMBER 2021



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Introduction

We are pleased to present the 2021 European Goodwill Impairment Study (2021 Study), which explores goodwill impairment trends by companies in the STOXX® Europe 600 Index, focusing on calendar years 2016–2020. The STOXX® Europe 600 Index comprises large, mid, and small capitalisation companies across nearly 20 countries within the European region.

Our inaugural study launched in 2013 and focused on the 2010–2012 calendar years, which enabled us to capture goodwill impairments (GWIs) recorded across countries and industries at the height of the Euro sovereign debt crisis. We find ourselves again in a period of significant upheaval, with companies forced to navigate the global economic crisis created by the outbreak of COVID-19.

Goodwill and impairment continue to be topics of interest to standard-setters and stakeholders. In early 2020, the International Accounting Standards Board (IASB) published a discussion paper entitled *Business Combinations - Disclosures, Goodwill and Impairment* to seek feedback on introducing more useful disclosures about acquisitions that companies make and simplifying certain aspects of the current impairment-only model for goodwill.

The IASB is now discussing its preliminary views based on the comments received, recently reaffirming its goal of developing a package of disclosures about acquisitions and their subsequent performance. The IASB's focus emphasises the need to provide information about management's stewardship of a company as a key objective of financial reporting.

Robust and timely information provided to investors is a critical foundation of their decisions, which also benefits the smooth functioning of global capital markets and effective market oversight. Once again, this basic principle and the need for transparency is pushed to the forefront in a time of disruption. Outside of the global financial crisis of 2008–2009 and the ensuing Euro sovereign debt crisis, there has not been a time in which information about goodwill impairment has been more important than in the current environment.

The impairment levels recorded recently demonstrate that changes in 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 goodwill impairment, as intended by the current goodwill impairment-only model.

The 2021 Study continues to include impairment trends and statistics for benchmark stock-market indices across five countries: France (CAC 40), Germany (DAX), Italy (FTSE MIB), Spain (IBEX 35), and the United Kingdom (UK) (FTSE 100).



View the 2021 European Goodwill Impairment Study Online

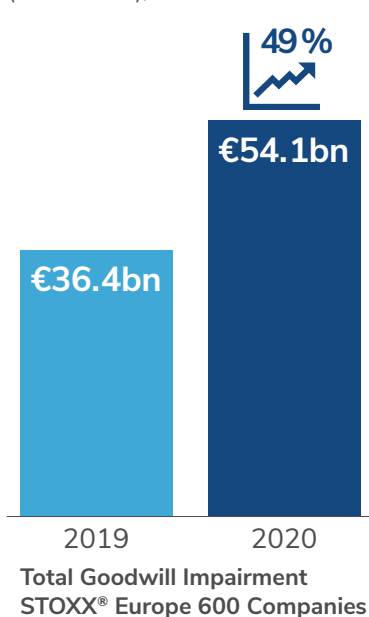
Goodwill Impairment Studies published by Duff & Phelps, A Kroll Business can be found online going back to 2010. Access historical studies covering the U.S., Europe and Canada.
www.duffandphelps.com/GWIStudies

HIGHLIGHTS OF THE 2021 STUDY

The 2021 Study focused on financial data for companies comprising the STOXX® Europe 600 Index in calendar years 2016 through 2020.*

This five-year period was characterised by economic uncertainty within Europe. Economic slowdown in 2019 had already clouded the outlook for many companies, leading to an increase in goodwill impairments. The outbreak of COVID-19 led to the worst global economic recession since World War II. Most major economies saw sizeable contractions in 2020, with real GDP declining by 6.3% in the Eurozone, eclipsing the decline observed in 2009. Germany's economy — the largest in the Eurozone — shrank by 4.6%. Economic performance for the UK, already struggling to recover from the Brexit impasse, was even worse. In 2020, the UK saw its economy contract by 9.8%. Real GDP in both economic regions is still below pre-pandemic levels.†

Total goodwill impairment recorded by European listed companies in the STOXX® Europe 600 increased for a third consecutive year. **Goodwill impairment rose 49% to €54.1 billion (bn) in 2020.** This was the highest level in aggregate goodwill impairment for the STOXX® Europe 600 since 2012 (at €66.4 bn), but not as severe as it could have been. The swift



actions by governments and central banks, with unprecedented levels of fiscal and monetary support, enabled many businesses to bounce back from the plunge in economic activity related to lockdowns.

The number of goodwill impairment events increased for a third consecutive year, rising from 126 in 2019 to 152 in 2020, or 21%. At the same time, the average impairment amount per event also increased by 23%, from €289 million (mn) to €356 mn over the same period.

With this environment as the backdrop, European M&A activity was mixed in 2020, with larger deals skewed towards the start of the year.‡ The number of closed M&A transactions in the Eurozone decreased by 8% in 2020 but deal value more than doubled (up 118%). However, almost 80% of the deal value was linked to transactions announced before March 2020, prior to COVID-19 being declared a pandemic. The UK had a similar story, with an overall decline in deal volume for the year (down 15%) and an increase in deal value (up 34% in € terms). Yet, two-thirds of the deal value related to transactions announced prior to March 2020.

* 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.

† Growth in real GDP based on latest estimates at the time of writing. Source data retrieved on 9 September 2021 from <https://ec.europa.eu/eurostat/data/database> and <https://www.ons.gov.uk/economy/grossdomesticproductgdp>.

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



2021 STUDY: LOOKING BACK AND LOOKING AHEAD

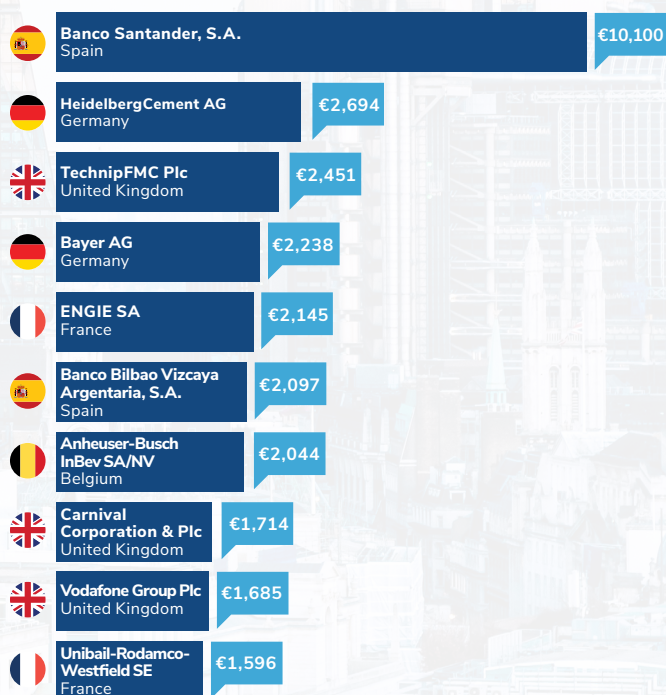
In 2020, the top 10 goodwill impairments represented just over half of the aggregate goodwill impairment of €54.1 bn. Of the companies that registered the top 10 events for the year, nine cited COVID-19 as either the cause or partly contributing to the impairment.*†

Looking ahead to 2021, recovery from the pandemic remains the biggest challenge for European companies. The Eurozone saw real GDP contract again in Q1 2021 as a resurgence in COVID-19 variants led to new lockdowns and restrictions in many countries. The Delta variant has proved resistant against some vaccines, leading to an increase in new COVID-19 cases in several countries. According to the International Monetary Fund (IMF), the sizes of the Eurozone and UK economies are only expected to return to pre-pandemic levels in 2022.‡ The top 10 goodwill impairment events disclosed at the time of writing reached a combined €5.1 bn, a sharp decrease from the top 10 amount disclosed in 2020. The year-to-date aggregate 2021 impairment amount suggests business recovery from the pandemic is underway, but calendar year-end results for STOXX® Europe 600 companies will not be known for some time. Supply chain disruptions and inflationary pressures are creating some uncertainty for the outlook. The path and speed of economic recovery from the COVID-19 crisis and its impact on long-term growth prospects will be among the crucial factors for European companies to consider when determining any goodwill impairment to recognise over the next couple of years.§

Top 10

GOODWILL IMPAIRMENTS

In 2020 (in mn)



* The 2021 Study uses the S&P Capital IQ platform as the primary source of data. See Appendix 1 for information on the procedures undertaken to arrive at the final dataset.

† Financial data for all companies in the 2021 Study, including goodwill impairment amounts, was adjusted to a calendar year-end (rather than the most recent fiscal year-end) when applicable.

‡ Source: International Monetary Fund, World Economic Outlook, October 2021.

§ Data for calendar year 2021 was compiled on September 7, 2021. The identities of the top 10 largest impairment events in 2021 may change once all companies report full-year 2021 results.

INDUSTRY HIGHLIGHTS

Nine of the ten industries analysed saw their aggregate goodwill impairment amounts increase. The top three industries with the most significant increase in goodwill impairment amounts in 2020 are as follows, in order of magnitude (€ bn):

- Financials & Real Estate (€17.2 to €22.6)
- Materials (€1.1 to €5.7)
- Communication Services (€0.6 to €3.9)

Financials & Real Estate topped the list for the third consecutive year, registering its highest goodwill impairment level since 2011 (€38.7 bn) and its second ever on record. Already challenged by a low-interest-rate environment, monetary policies implemented by major central banks in 2020 to counter the effect of COVID-19 drove interest rates even lower.

Materials registered its highest goodwill impairment level since 2013 (€7.5 bn), as the pandemic lockdowns delayed construction projects and disrupted global supply chains.

Consumer Staples was the only industry seeing a decline in 2020 (from €7.5 bn to €4.9 bn), as demand for necessities helped offset some of the adverse effects of the pandemic. However, the aggregate goodwill impairment in 2020 was still the second highest level registered by this industry, following the record high reached in 2019.

GEOGRAPHIC HIGHLIGHTS

At €13.4 bn, Spain was the country within the STOXX® Europe 600 with the highest aggregate amount of goodwill impairment in 2020. This represented more than a threefold increase from the €4 bn level in 2019, and exceeded the total amount observed for the country in all the other years combined from our previous studies. Spain's aggregate goodwill impairment amount was disproportionately driven by a single event, which was also the top goodwill impairment event in 2020 for the STOXX® Europe 600, and the third largest ever registered in the entire history of our European studies.

At €11.8 bn, the UK saw the second highest goodwill impairment amount, dropping from first place in 2019. Germany took the third spot, with aggregate impairment climbing to €9.7 bn, which was accompanied by a record-high number of impairment events for the country.

Consistent with the above trends, the standalone country benchmark stock-market indices revealed the following goodwill impairment changes (€ bn):

- Surge by more than threefold for IBEX 35 companies (€4.0 to €13.6).
- Increase by nearly a quarter for DAX companies (€5.7 to €6.9)
- Increase by two-thirds for CAC 40 companies (€3.9 to €6.5)
- Steep increase for FTSE MIB companies (€0.2 to €2.4)
- Sharp drop of 57% for FTSE companies (€16.0 to €6.8)

2020 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 2016 and 2020 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 2020. For example, Financials & Real Estate tops the industry list with a €22.6 billion aggregate goodwill impairment total.

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 2020 and (ii) the proportion of those companies that recorded a goodwill impairment. For example, the top row of Table 1 shows:



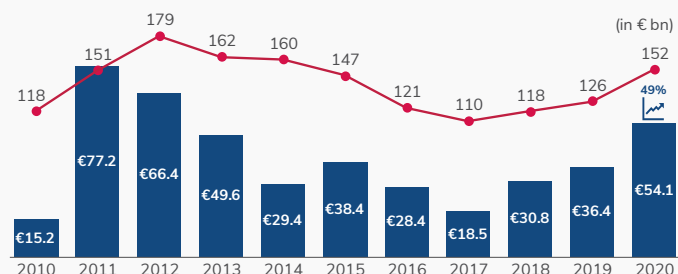
Goodwill Impairments

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 GWI increased by almost 50% in 2020, reflecting the impact of COVID-19, which caused the worst global economic recession since World War II.

2020 marks the highest level in total GWI for the STOXX® Europe 600 since 2012, at the height of the Euro sovereign debt crisis.

Financials were particularly affected for a second consecutive year, with the continued low-interest-rate environment in Europe exacerbated by pandemic-related monetary policies.



Top Industry in 2020 with:

Largest ↗ in GWI

Financials & Real Estate

€22.6bn

↑ €5.4bn from 2019

Largest ↘ in GWI

Consumer Staples

€4.9bn

↓ €2.6bn from 2019

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 increase from the prior year, as the combination of decreased global demand for oil and the temporary oil price war between Saudi Arabia and Russia led to a plunge in oil prices.



8 out of 10 industries saw a rising proportion of companies recording a GWI in 2020, impacted by the global economic recession induced by COVID-19, with 3 industries reaching a record-high percentage (since we began tracking data):



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:

Over the last 5 years, only two industries have seen 100% of companies carry goodwill in their books in every single year.



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 increase in number of companies with goodwill that recorded a GWI, followed by Information Technology and Consumer Discretionary. Utilities and Communication Services were the only industries to see a slight decline in 2020.

Top 3 Industries with largest proportion overall are as follows:













* The information covering the period between 2016 and 2019 was carried forward from the 2020 Study, with a few exceptions. Certain historical data was adjusted for database errors.

[†] 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.

2020 GOODWILL IMPAIRMENT (TABLE 1)

		2016	2017	2018	2019	2020		
		Goodwill Impairments: € bn (number of events)					Companies with GW	Per cent Recording GWI
(Companies)		Per cent of Total Companies that Recorded GWI						
		Per cent of Companies with Goodwill						
		Per cent of Companies with Goodwill that Recorded GWI						
	Financials & Real Estate (142)	8.1 (37)	3.4 (30)	9.6 (31)	17.2 (34)	22.6 (41)	80%	36%
		26.4%	22.1%	22.6%	23.6%	28.9%		
		85.0%	86.0%	84.7%	83.3%	79.6%		
		31.1%	25.6%	26.7%	28.3%	36.3%		
	Materials (53)	0.2 (8)	1.6 (7)	0.1 (4)	1.1 (7)	5.7 (10)	93%	20%
		14.5%	12.7%	7.5%	14.0%	18.9%		
		92.7%	92.7%	92.5%	94.0%	92.5%		
		15.7%	13.7%	8.2%	14.9%	20.4%		
	Consumer Staples (47)	0.9 (10)	4.0 (10)	1.2 (10)	7.5 (14)	4.9 (17)	100%	36%
		24.4%	22.7%	23.8%	33.3%	36.2%		
		100.0%	100.0%	100.0%	100.0%	100.0%		
		24.4%	22.7%	23.8%	33.3%	36.2%		
	Energy (16)	0.8 (5)	0.0 (2)	1.5 (6)	3.2 (6)	3.9 (7)	94%	47%
		22.7%	9.5%	27.3%	27.3%	43.8%		
		86.4%	95.2%	86.4%	86.4%	93.8%		
		26.3%	10.0%	31.6%	31.6%	46.7%		
	Communication Services (37)	7.0 (8)	2.4 (5)	7.1 (15)	0.6 (12)	3.9 (11)	100%	30%
		40.0%	26.3%	36.6%	30.0%	29.7%		
		100.0%	100.0%	100.0%	100.0%	100.0%		
		40.0%	26.3%	36.6%	30.0%	29.7%		
	Consumer Discretionary (63)	5.0 (18)	0.9 (19)	1.4 (12)	3.0 (14)	3.7 (19)	94%	32%
		20.7%	22.4%	19.4%	21.2%	30.2%		
		95.4%	92.9%	93.5%	92.4%	93.7%		
		21.7%	24.1%	20.7%	23.0%	32.2%		
	Industrials (113)	1.4 (20)	1.6 (21)	2.9 (24)	2.4 (24)	3.3 (26)	95%	24%
		17.1%	17.9%	20.3%	22.2%	23.0%		
		95.7%	95.7%	96.6%	94.4%	94.7%		
		17.9%	18.8%	21.1%	23.5%	24.3%		
	Healthcare (52)	0.1 (2)	1.1 (3)	3.7 (8)	1.0 (5)	3.1 (7)	89%	15%
		4.7%	6.7%	15.7%	10.0%	13.5%		
		90.7%	91.1%	92.2%	92.0%	88.5%		
		5.1%	7.3%	17.0%	10.9%	15.2%		
	Utilities (30)	4.7 (8)	1.3 (7)	3.2 (6)	0.3 (7)	2.7 (7)	97%	24%
		30.8%	28.0%	22.2%	24.1%	23.3%		
		92.3%	92.0%	92.6%	96.6%	96.7%		
		33.3%	30.4%	24.0%	25.0%	24.1%		
	Information Technology (36)	0.2 (5)	2.1 (6)	0.0 (2)	0.1 (3)	0.3 (7)	97%	20%
		13.5%	15.0%	6.3%	8.3%	19.4%		
		97.3%	100.0%	96.9%	97.2%	97.2%		
		13.9%	15.0%	6.5%	8.6%	20.0%		
Total* (589)		28.4 (121)	18.5 (110)	30.8 (118)	36.4 (126)	54.1 (152)	91%	28%
		20.6%	18.7%	20.2%	21.5%	25.8%		
		92.5%	93.0%	92.6%	92.0%	91.2%		
		22.2%	20.1%	21.8%	23.3%	28.3%		

* Amounts shown are aggregates. Differences due to rounding.

2020 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 2016 and 2020 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 2020. For example, in Table 2, Spain heads the country list with its aggregate goodwill impairment of €13.4 billion.

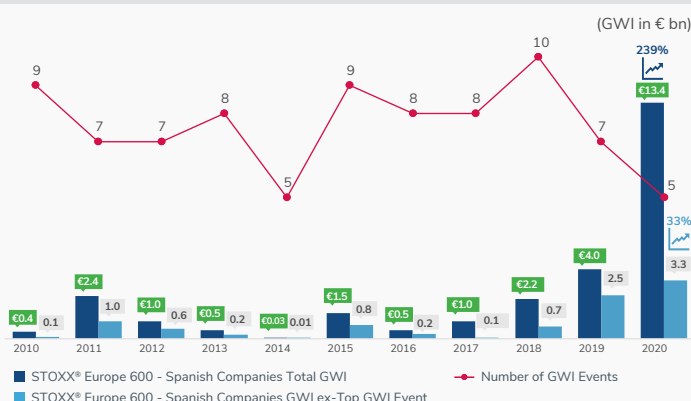
Additionally, the graphs on the right of Table 2 provide a quick comparison of (i) the preponderance of companies with goodwill within each country in 2020 and (ii) the proportion of those companies that recorded a goodwill impairment. For example, the top row of Table 2 shows:



Goodwill Impairments

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

- Spain climbed to the top spot in 2020 as the country with the largest aggregate GWI. Spain's economy was the hardest hit by the pandemic within the Eurozone, with Spanish real GDP plunging by 10.8%.†
- Spain's 2020 overall GWI reached a record high for the country and exceeds the combined GWI of all the other years (2010–2019) in our studies. Noticeably, the largest impairment event in Spain has been disproportionately high for several years, especially in 2020. However, even excluding the top event, overall GWI rose significantly in 2020.



* The information covering the period between 2016 and 2019 was carried forward from the 2021 Study, with a few exceptions. Certain historical data was adjusted for database errors.

† Source: Eurostat database, accessed 9 September 2021. Available here: <https://ec.europa.eu/eurostat/data/database>

‡ Excluding group of "Other" countries.

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 recorded an increase in 2020, with Sweden and Spain being the exceptions.
- The UK reached the highest proportion of companies recording a GWI in its history, despite the aggregate GWI amount dropping in 2020.
- Germany saw its second highest proportion, at very similar levels to 2012, during the height of the Euro sovereign debt crisis.
- Netherlands was the country with the largest increase in 2020.



Percentage of Companies with Goodwill

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

Of the 8 countries analysed, most saw declines in the proportion of companies carrying goodwill in 2020, partly reflecting the complete write-off of goodwill by some companies not being offset by goodwill additions from new acquisitions. Europe saw a sharp drop in M&A activity due to the pandemic.

Switzerland showed the largest decline:



Percentage of Companies with Goodwill Recording a Goodwill Impairment


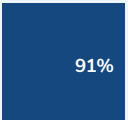

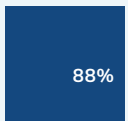

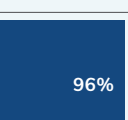

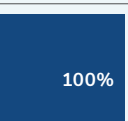

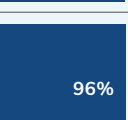

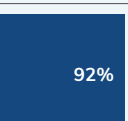

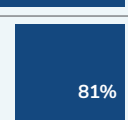

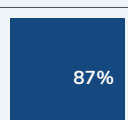

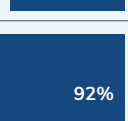
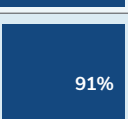
The final (fourth) row in Table 2 indicates the percentage of companies with goodwill that recorded a goodwill impairment. Highlights include:‡

Netherlands registered the largest increase in proportion of companies with goodwill recording a GWI in 2020, followed by Italy and Germany.

Top 3 countries with largest proportion overall are as follows:

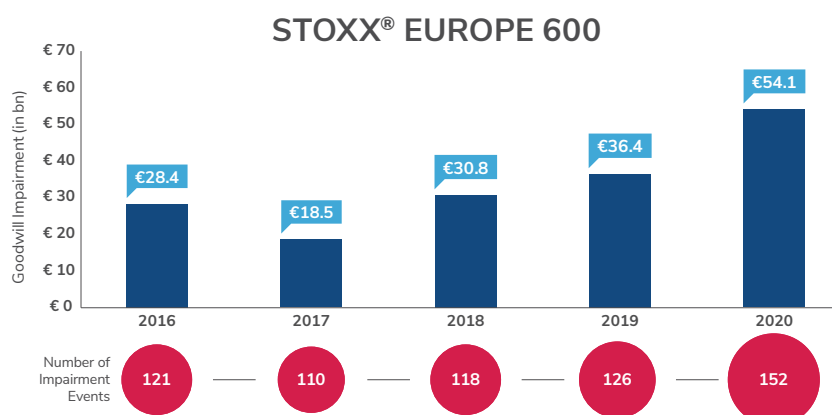
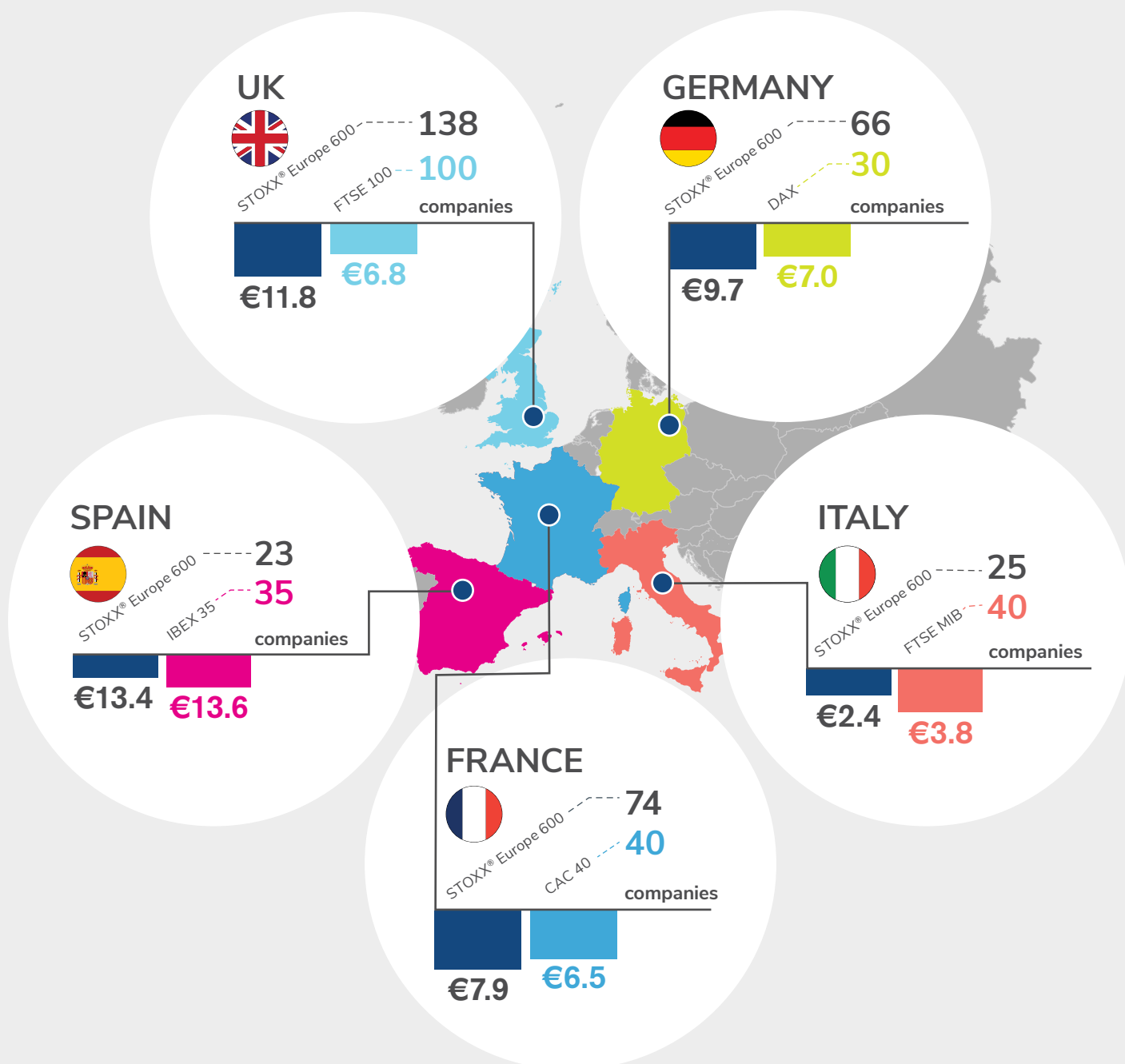


2020 GOODWILL IMPAIRMENT (TABLE 2)

		2016	2017	2018	2019	2020		
(Companies)		Goodwill Impairments: € bn (number of events)					Companies with GW	Per cent Recording GWI
		Per cent of Total Companies that Recorded GWI						
		Per cent of Companies with Goodwill						
		Per cent of Companies with Goodwill that Recorded GWI						
	Spain (23)	0.5 (8)	1.0 (8)	2.2 (10)	4.0 (7)	13.4 (5)		24%
		28.6%	30.8%	40.0%	29.2%	21.7%		
		96.4%	92.3%	92.0%	91.7%	91.3%		
		29.6%	33.3%	43.5%	31.8%	23.8%		
	United Kingdom (138)	13.7 (38)	2.6 (29)	7.1 (19)	19.3 (30)	11.8 (37)		30%
		22.1%	17.8%	13.0%	20.5%	26.8%		
		88.4%	87.1%	88.4%	89.0%	88.4%		
		25.0%	20.4%	14.7%	23.1%	30.3%		
	Germany (66)	5.4 (8)	3.2 (13)	4.5 (11)	5.9 (13)	9.7 (20)		32%
		12.5%	19.7%	15.3%	19.1%	30.3%		
		98.4%	100.0%	98.6%	97.1%	95.5%		
		12.7%	19.7%	15.5%	19.7%	31.7%		
	France (74)	5.7 (25)	2.4 (25)	9.0 (30)	2.5 (34)	7.9 (32)		43%
		32.1%	29.8%	37.5%	42.5%	43.2%		
		98.7%	100.0%	100.0%	100.0%	100.0%		
		32.5%	29.8%	37.5%	42.5%	43.2%		
	Italy (25)	0.8 (6)	1.1 (3)	2.7 (6)	0.2 (3)	2.4 (6)		25%
		22.2%	11.5%	24.0%	10.7%	24.0%		
		92.6%	100.0%	100.0%	100.0%	96.0%		
		24.0%	11.5%	24.0%	10.7%	25.0%		
	Netherlands (38)	0.4 (5)	0.5 (6)	1.1 (6)	0.1 (3)	1.9 (10)		29%
		14.7%	17.6%	18.8%	9.1%	26.3%		
		97.1%	97.1%	90.6%	90.9%	92.1%		
		15.2%	18.2%	20.7%	10.0%	28.6%		
	Switzerland (53)	0.5 (5)	5.7 (7)	2.9 (8)	1.6 (6)	1.5 (9)		21%
		10.0%	14.3%	16.0%	11.8%	17.0%		
		86.0%	85.7%	86.0%	86.3%	81.1%		
		11.6%	16.7%	18.6%	13.6%	20.9%		
	Sweden (60)	0.9 (4)	1.5 (3)	0.4 (4)	1.0 (8)	0.8 (6)		12%
		9.5%	7.1%	9.5%	17.8%	10.0%		
		88.1%	90.5%	90.5%	88.9%	86.7%		
		10.8%	7.9%	10.5%	20.0%	11.5%		
	Other (112)	0.4 (22)	0.5 (16)	0.7 (24)	1.8 (22)	4.7 (27)		26%
		23.7%	16.5%	21.2%	19.6%	24.1%		
		93.5%	93.8%	92.0%	89.3%	92.0%		
		25.3%	17.6%	23.1%	22.0%	26.2%		
	Total* (589)	28.4 (121)	18.5 (110)	30.8 (118)	36.4 (126)	54.1 (152)		28%
		20.6%	18.7%	20.2%	21.5%	25.8%		
		92.5%	93.0%	92.6%	92.0%	91.2%		
		22.2%	20.1%	21.8%	23.3%	28.3%		

* Amounts shown are aggregates. Differences due to rounding.

2020 GOODWILL IMPAIRMENT COUNTRY SPOTLIGHTS (IN € BN)



2020 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 five countries:

- France
- Germany
- Italy
- Spain
- UK

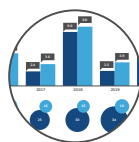
In addition, the Country Spotlights present similar metrics and statistics for companies in the following benchmark stock market indices:

- CAC 40 in France
- DAX in Germany
- FTSE MIB in Italy
- IBEX 35 in Spain
- FTSE 100 in the UK

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

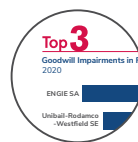
Goodwill Impairment Trends

Shows annual goodwill impairment amounts and the number of goodwill impairment events over the last five years (2016–2020) for both the STOXX® Europe 600 companies based in each country and for the member companies of the respective country's benchmark stock-market index.



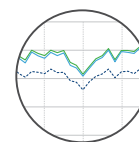
Top 3 Goodwill Impairments in the Country

Highlights the top 3 goodwill impairments recorded in the featured country during the calendar year 2020.



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 2015 would be worth at the end of 2020.[†]

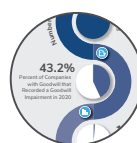


Country Index Comparison

Compares calendar-year 2020 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.

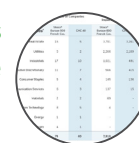
Specifically, it depicts: (i) Number of Companies; (ii) Per cent of Companies with Goodwill; (iii) Per cent of

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 2020 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 2021 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 five countries.

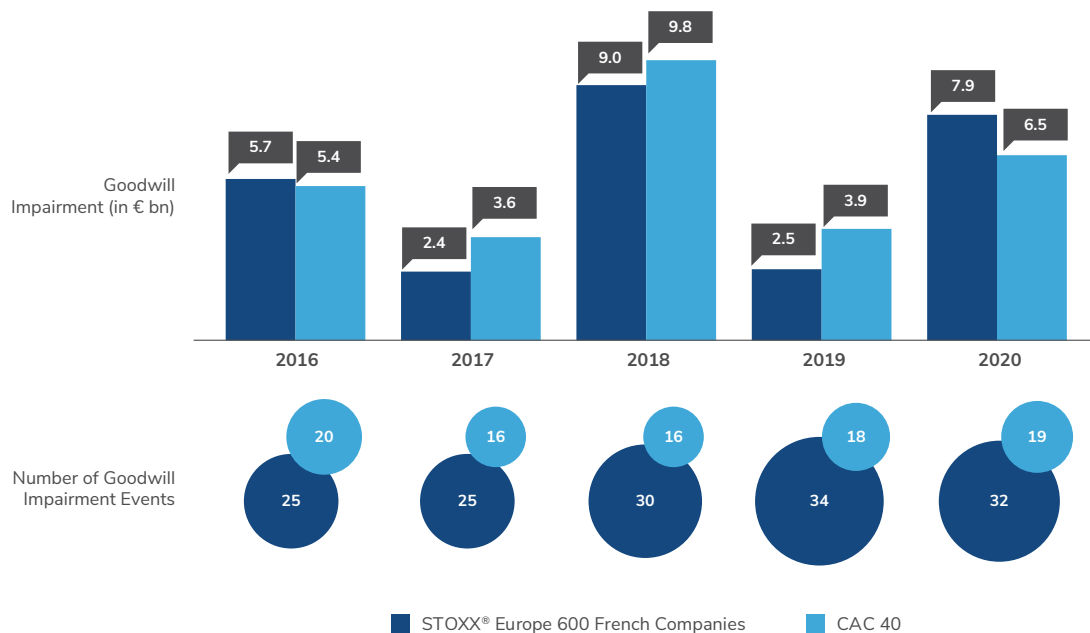


FRANCE



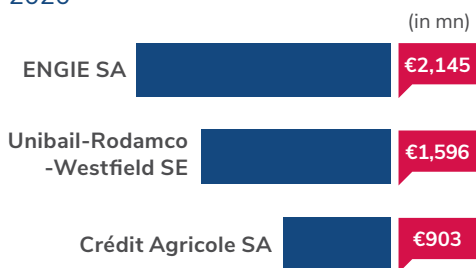
This two-page Country Spotlight compares goodwill impairment trends and statistics for two different indices: (i) the French companies within the STOXX® Europe 600 and (ii) the CAC 40 Index constituents. The CAC 40 Index is typically used as the benchmark stock-market index in France, and most of its 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 €6.5 billion, while the 74 French companies in the STOXX® Europe 600 recognised an aggregate amount of €7.9 billion, with 13 incremental impairment events observed.

GOODWILL IMPAIRMENT TRENDS

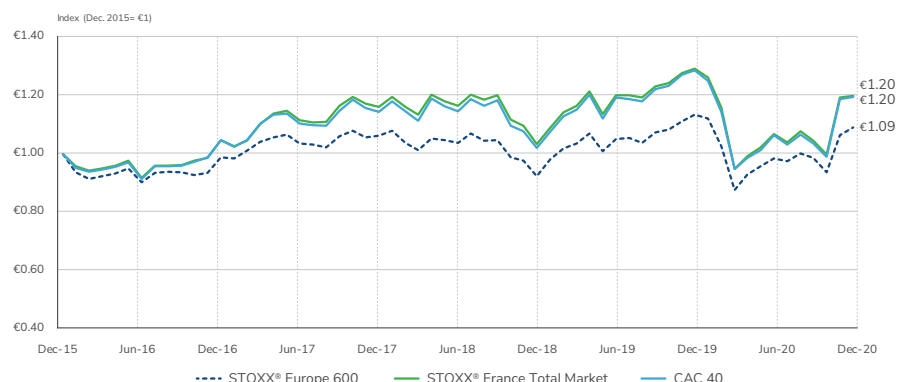


Top 3

Goodwill Impairments in France 2020



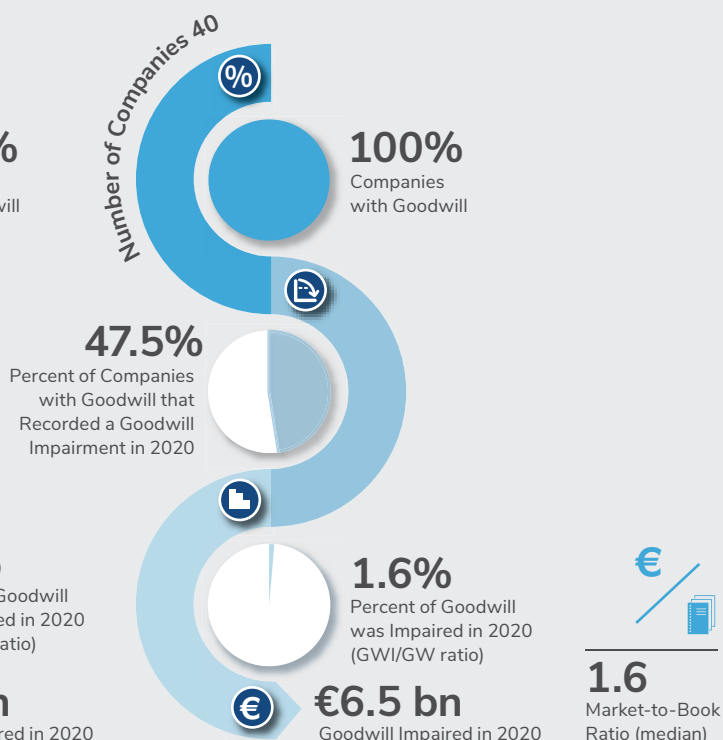
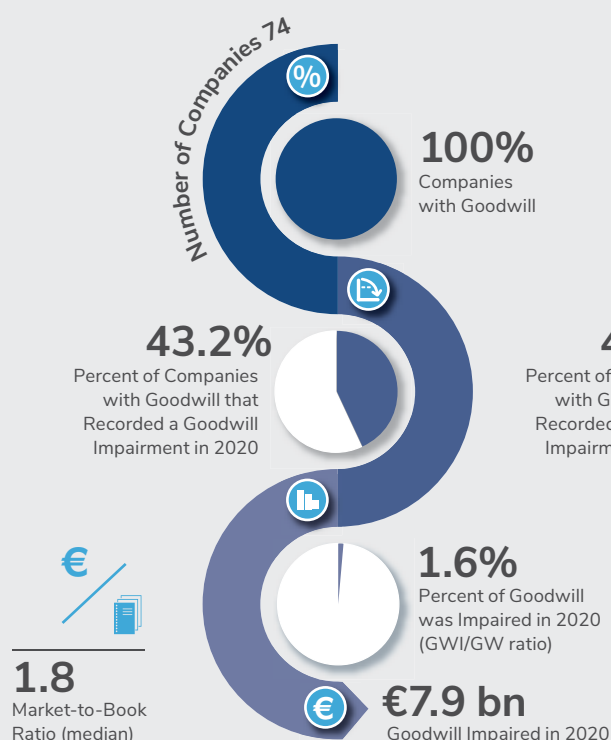
Cumulative 5-year Total Return from 2016 to 2020 Index (Dec. 2015 = €1)



2020 FRANCE SPOTLIGHT

STOXX® EUROPE 600
FRENCH COMPANIES

CAC 40



Number of Companies

Total Goodwill Impairment (€ mn)

Number of Events

Industries*		Number of Companies		Total Goodwill Impairment (€ mn)		Number of Events	
		STOXX® Europe 600 French Cos.	CAC 40	STOXX® Europe 600 French Cos.	CAC 40	STOXX® Europe 600 French Cos.	CAC 40
	Financials & Real Estate	15	5	3,701	3,261	7	4
	Utilities	5	2	2,266	2,189	4	2
	Industrials	17	10	1,021	491	7	5
	Consumer Discretionary	11	7	566	415	7	5
	Consumer Staples	5	4	145	136	3	2
	Communication Services	6	3	137	15	2	1
	Materials	2	2	69	-	1	0
	Information Technology	8	5	4	-	1	0
	Energy	1	1	-	-	0	0
	Healthcare	4	1	-	-	0	0
Total†		74	40	7,910	6,507	32	19

* Industries are listed in descending order of their total goodwill impairment amounts for 2020.

† Amounts shown are aggregates. Differences due to rounding.

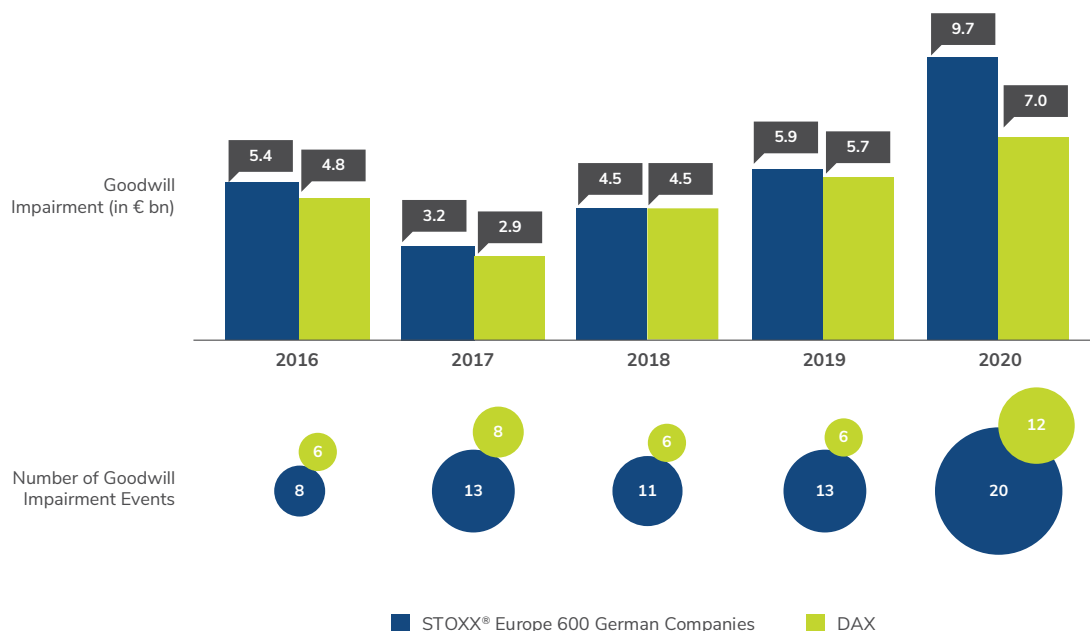


GERMANY



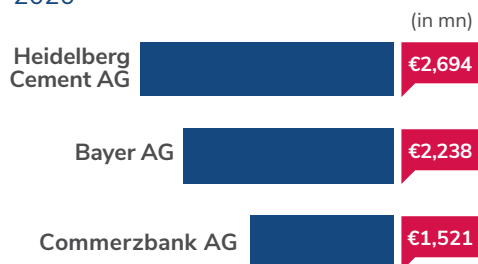
This two-page Country Spotlight compares goodwill impairment trends and statistics for two different indices: (i) the German companies within the STOXX® Europe 600 and (ii) the DAX Index constituents. The DAX Index is typically used as the benchmark stock-market index in Germany, and most of its constituents 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. In 2020, aggregate goodwill impairment registered by the 66 German companies within the STOXX® Europe 600 (€9.7 billion) was significantly higher when compared with 30 DAX Index constituents (approximately €7.0 billion), with eight incremental impairment events. Goodwill impairments in Germany have increased for three consecutive years, with the aggregate amount reaching the highest level since 2015. The number of impairment events taken in 2020 by German companies in the STOXX® Europe 600 reached a record high, based on data we started tracking in 2010.

GOODWILL IMPAIRMENT TRENDS

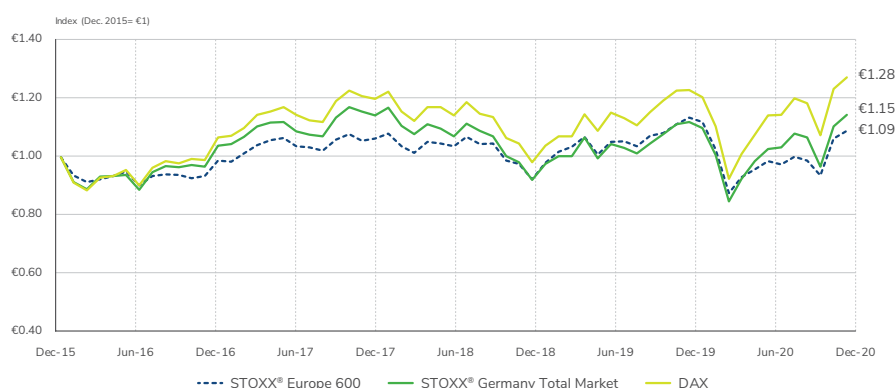


Top 3

Goodwill Impairments in Germany 2020



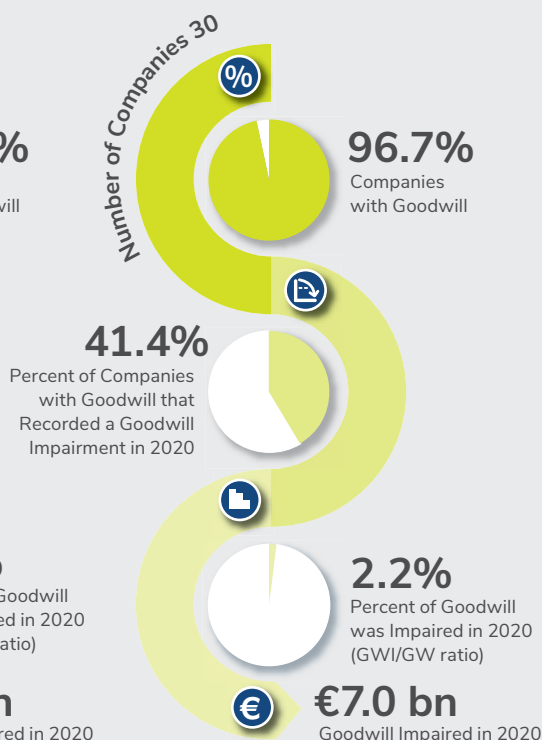
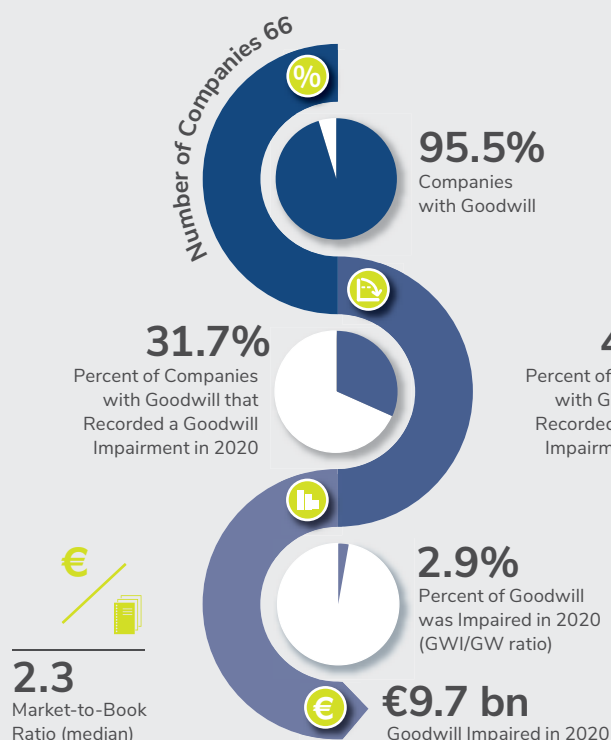
Cumulative 5-year Total Return from 2016 to 2020 Index (Dec. 2015 = €1)



2020 GERMANY SPOTLIGHT

STOXX® EUROPE 600
GERMAN COMPANIES











DAX



Number of Companies

Total Goodwill Impairment (€ mn)

Number of Events

Industries*		STOXX® Europe 600 German Cos.	DAX	STOXX® Europe 600 German Cos.	DAX	STOXX® Europe 600 German Cos.	DAX
	Materials	8	4	4,257	3,480	3	2
	Healthcare	9	4	2,629	2,627	4	3
	Financials & Real Estate	11	6	1,592	-	3	0
	Consumer Discretionary	10	6	760	692	3	2
	Industrials	12	3	422	112	4	2
	Consumer Staples	2	2	41	41	2	2
	Communication Services	6	1	26	26	1	1
	Energy	0	0	-	-	0	0
	Information Technology	6	2	-	-	0	0
	Utilities	2	2	-	-	0	0
Total¹		66	30	9,726	6,977	20	12

* Industries are listed in descending order of their total goodwill impairment amounts for 2020.

† Amounts shown are aggregates. Differences due to rounding.

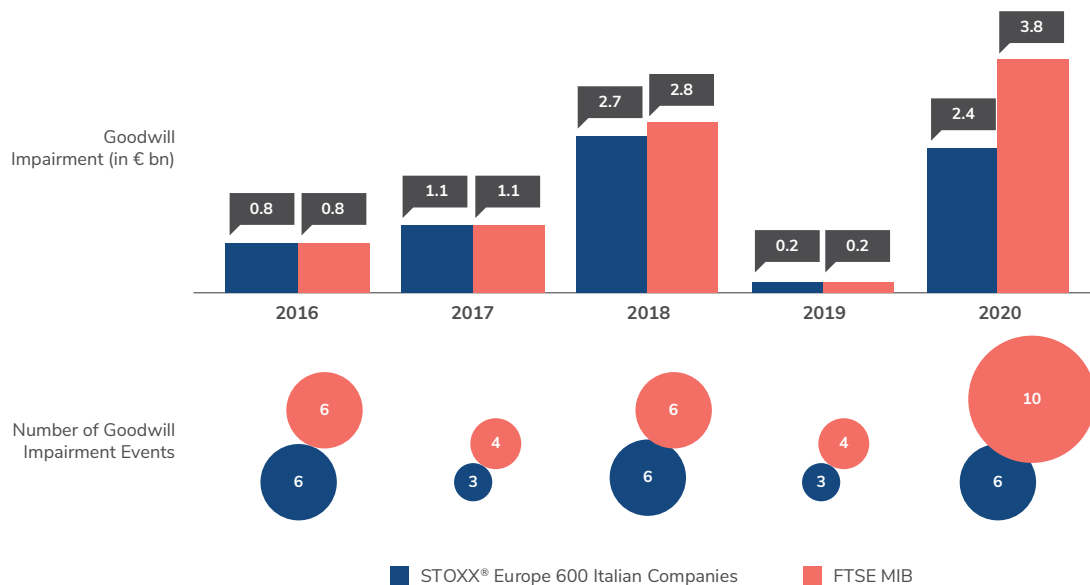


ITALY



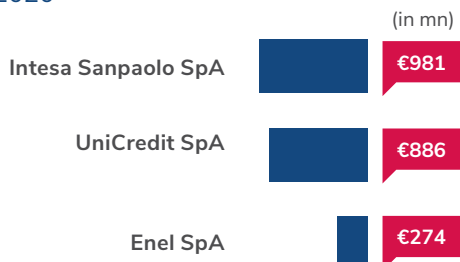
This two-page Country Spotlight compares goodwill impairment trends and statistics for two different indices: (i) the Italian companies within the STOXX® Europe 600 and (ii) the FTSE MIB Index constituents. The FTSE MIB Index is typically used as the benchmark stock-market index in Italy, and most of its constituents are also members of the STOXX® Europe 600. However, unlike some of the other countries spotlighted in the 2021 Study, the number of Italian companies in the STOXX® Europe 600 is smaller (25) than the number of FTSE MIB Index constituents (40). In 2020, observed aggregate goodwill impairment within the two indices grew significantly. FTSE MIB Index constituents recorded approximately €3.8 billion in aggregate goodwill impairment, outpacing the Italian companies within the STOXX® Europe 600 (approximately €2.4 bn), with four incremental impairment events.

GOODWILL IMPAIRMENT TRENDS

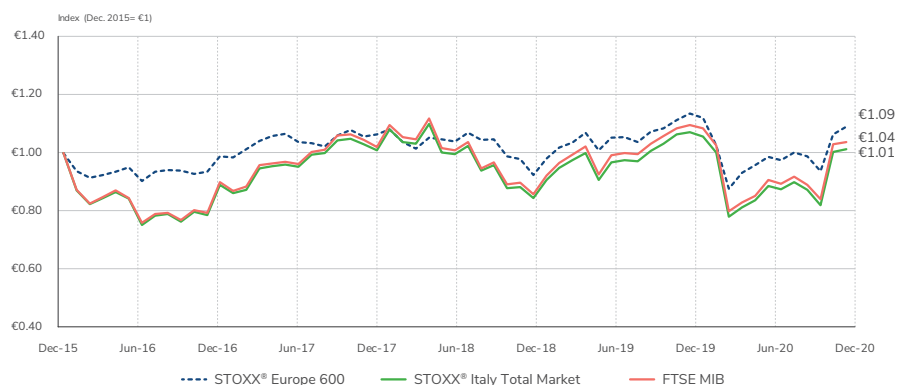


Top 3

Goodwill Impairments in Italy 2020



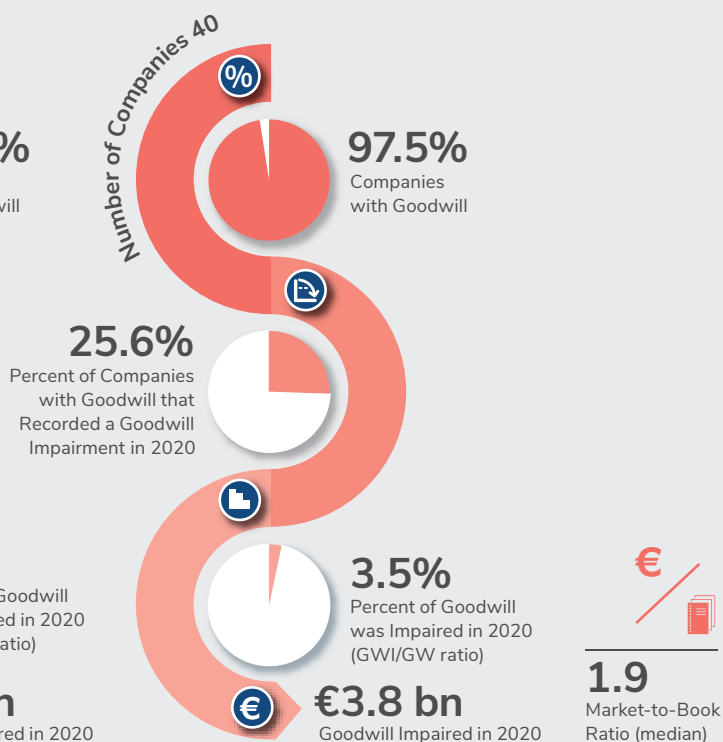
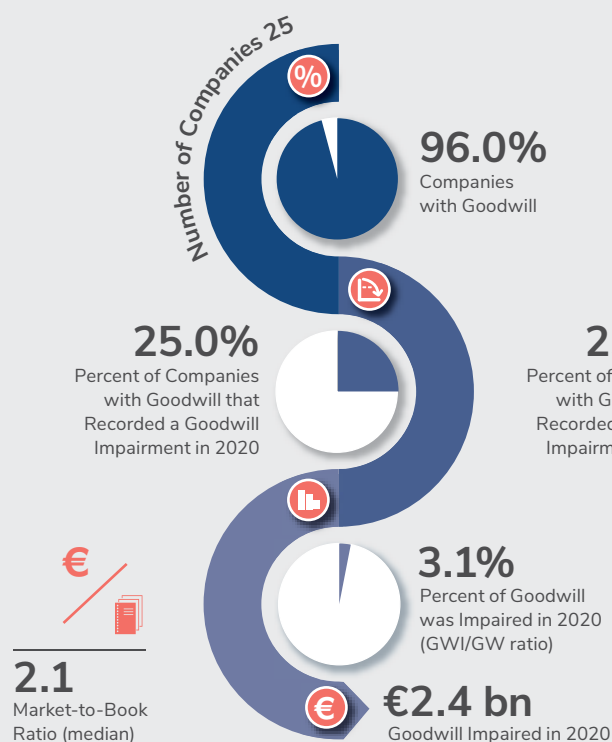
Cumulative 5-year Total Return from 2016 to 2020 Index (Dec. 2015 = €1)



2020 ITALY SPOTLIGHT

STOXX® EUROPE 600
ITALIAN COMPANIES

FTSE MIB



		Number of Companies		Total Goodwill Impairment (€ mn)		Number of Events	
Industries*		STOXX® Europe 600 Italian Cos.	FTSE MIB	STOXX® Europe 600 Italian Cos.	FTSE MIB	STOXX® Europe 600 Italian Cos.	FTSE MIB
	Financials & Real Estate	7	13	1,989	2,494	4	5
	Utilities	6	6	274	274	1	1
	Industrials	4	5	102	580	1	2
	Energy	1	3	-	479	0	1
	Materials	0	1	-	1	0	1
	Other	7	12	0	0	0	0
Total†		25	40	2,365	3,828	6	10

* Industries are listed in descending order of their total goodwill impairment amounts for 2020.

† Amounts shown are aggregates. Differences due to rounding.



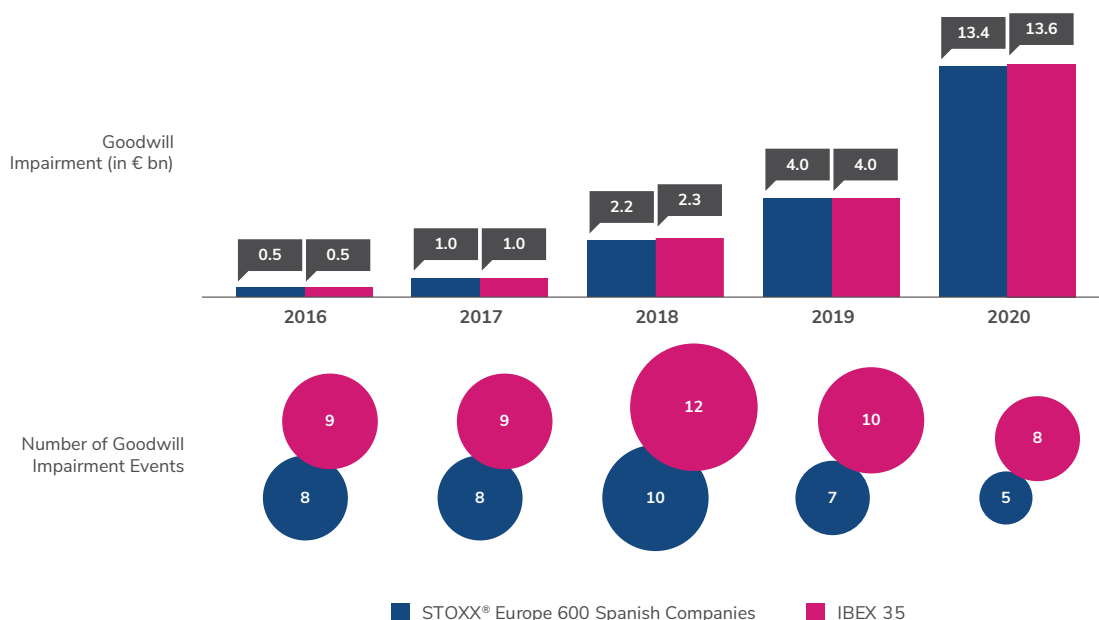
SPAIN



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 many of its constituents are also members of the STOXX® Europe 600. In 2020, there was little difference between the two indices, with the aggregate goodwill impairment recorded at approximately €13.6 bn for IBEX 35 Index constituents and €13.4 billion for the 23 Spanish companies within the STOXX® Europe 600 Index, with three incremental impairment events observed for IBEX 35 members. Spain's economy was the hardest hit by the pandemic within the Eurozone (10.8% real GDP decline).^{*} This contributed to a record-high aggregate goodwill impairment for Spain since we began publishing our studies. In fact, the total goodwill impairment recorded in 2020 by Spanish companies in the STOXX® Europe 600 slightly exceeded the sum of the totals observed in all other years in the preceding decade (2010–2019). The largest single goodwill impairment event in the 2021 Study was also recorded by a Spanish company in the Financials and Real Estate industry.

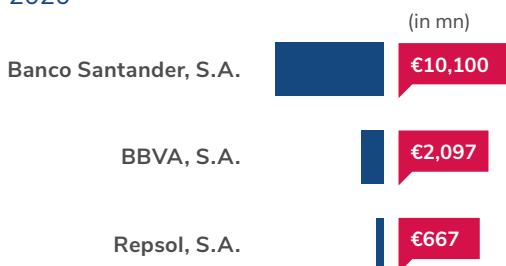
^{*}Source: Eurostat database, accessed on 9 September 2021. Available here: <https://ec.europa.eu/eurostat/data/database>.

GOODWILL IMPAIRMENT TRENDS

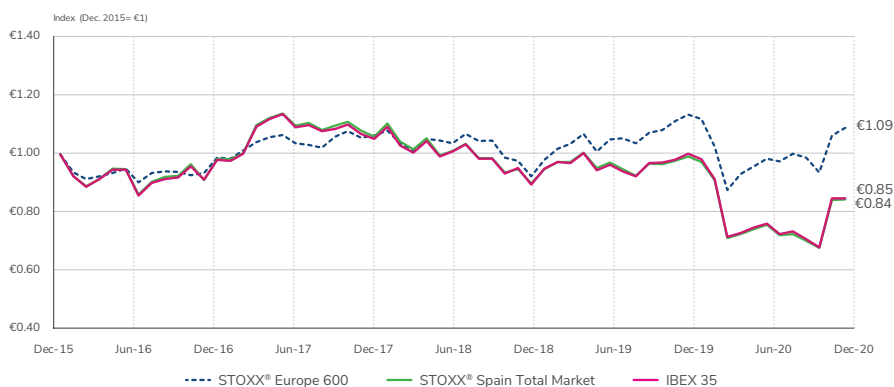


Top 3

Goodwill Impairments in Spain 2020



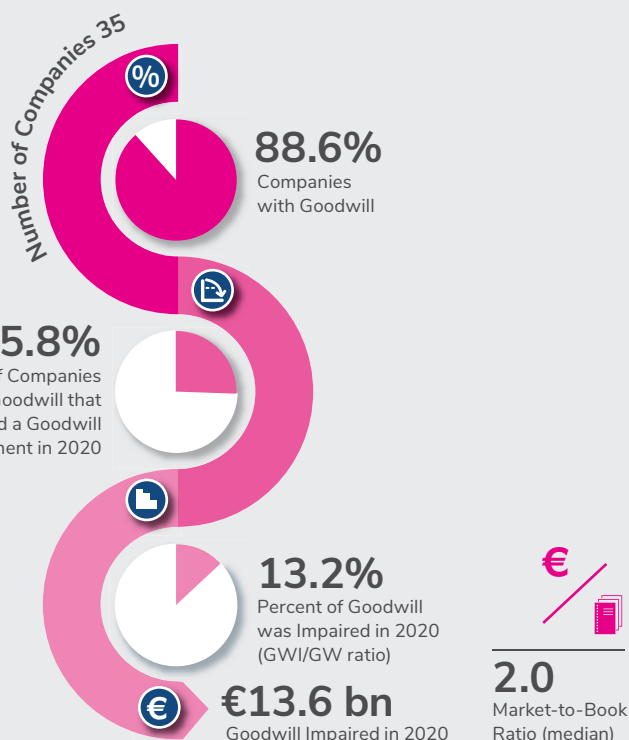
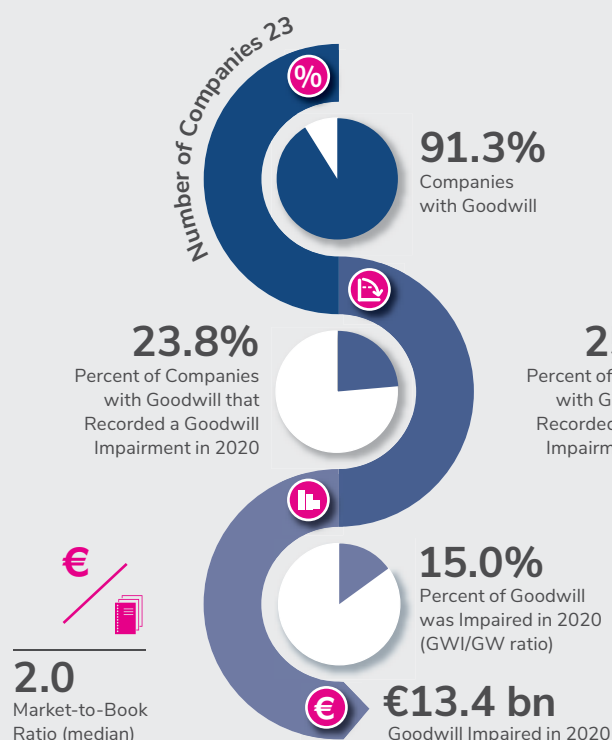
Cumulative 5-year Total Return from 2016 to 2020 Index (Dec. 2015 = €1)



2020 SPAIN SPOTLIGHT

STOXX® EUROPE 600
SPANISH COMPANIES

IBEX 35



Number of Companies

Total Goodwill Impairment (€ mn)

Number of Events

Industries*	STOXX® Europe 600 Spanish Cos.		IBEX 35		STOXX® Europe 600 Spanish Cos.		IBEX 35	
	Number of Companies	Total Goodwill Impairment (€ mn)	Number of Companies	Total Goodwill Impairment (€ mn)	Number of Events	Total Goodwill Impairment (€ mn)	Number of Events	Total Goodwill Impairment (€ mn)
Financials & Real Estate	7	12,197	9	12,327	2	4		
Energy	1	667	1	667	1	1		
Communication Services	2	519	2	519	1	1		
Information Technology	1	4	2	4	1	1		
Materials	0	-	2	-	0	0		
Industrials	4	-	5	-	0	0		
Consumer Discretionary	1	-	3	37	0	1		
Consumer Staples	1	-	1	-	0	0		
Healthcare	1	-	3	-	0	0		
Utilities	5	-	7	-	0	0		
Total†	23	13,387	35	13,554	5	8		

* Industries are listed in descending order of their total goodwill impairment amounts for 2020.

† Amounts shown are aggregates. Differences due to rounding.

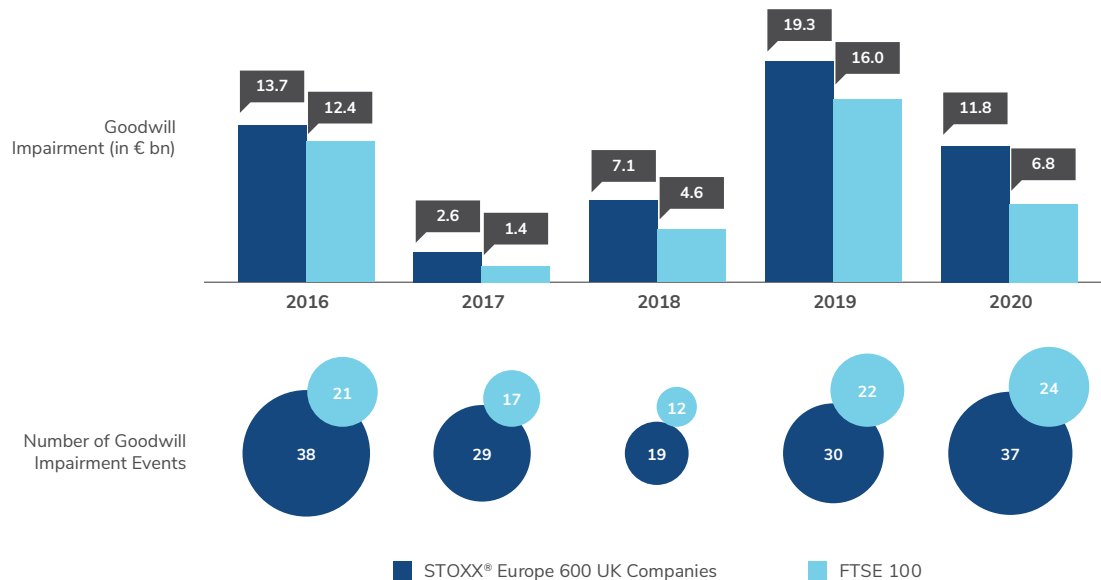


UNITED KINGDOM



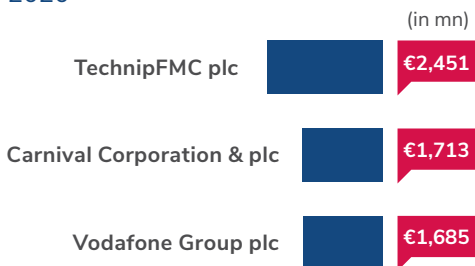
This two-page Country Spotlight compares goodwill impairment trends and statistics for two different indices: (i) the UK companies within the STOXX® Europe 600 and (ii) the FTSE 100 Index constituents. The FTSE 100 Index is typically used as the benchmark stock-market index in the UK, and most of its constituents are also members of the STOXX® Europe 600. In comparison, the number of UK 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 €6.8 bn in 2020, while the 138 UK companies in the STOXX® Europe 600 recognised an aggregate amount of €11.8 billion, with 13 incremental impairment events observed. Aggregate goodwill impairment in both indices declined from the previous year, after two consecutive years of increases. Nevertheless, the aggregate impairment recorded in 2020 by UK companies in the STOXX® Europe 600 was the second highest since 2016, whereas the number of impairment events was the largest since 2016—the year the Brexit referendum took place.

GOODWILL IMPAIRMENT TRENDS

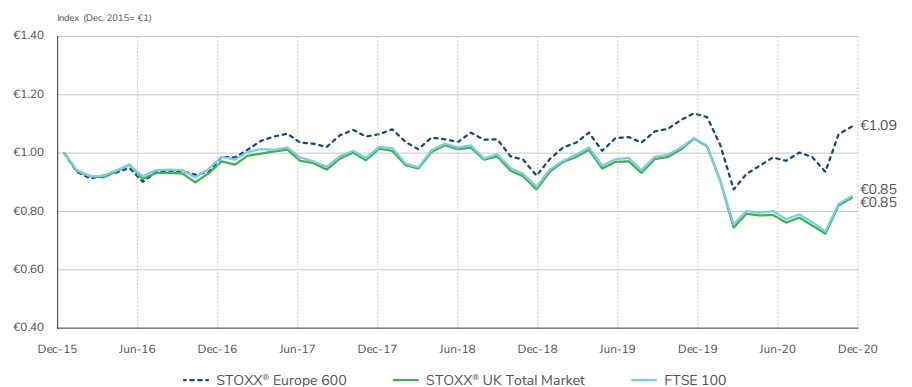


Top 3

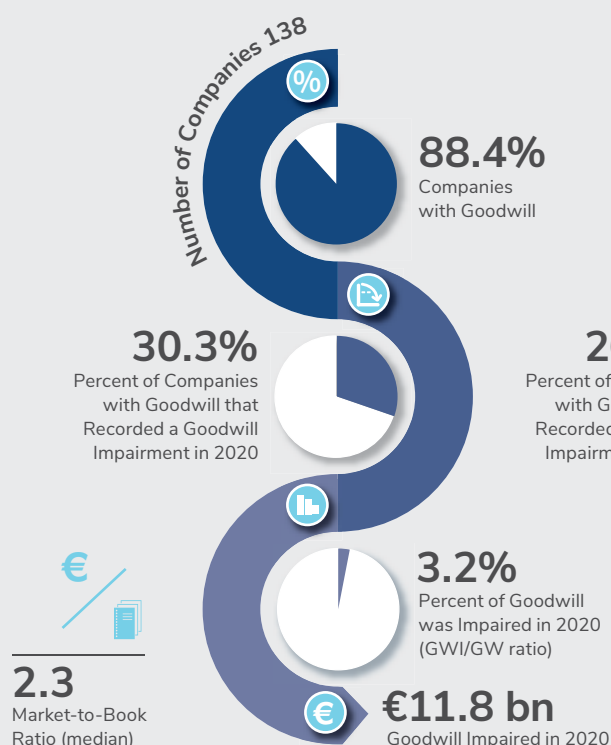
Goodwill Impairments in UK 2020



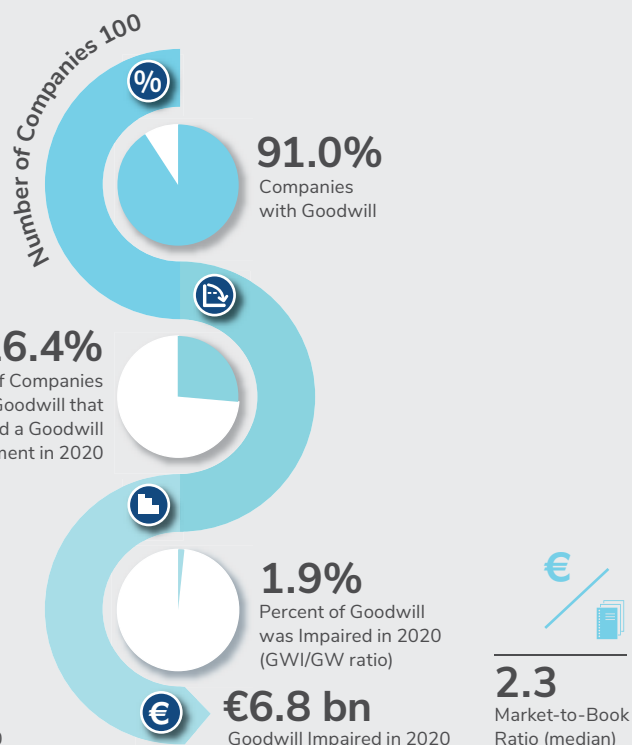
Cumulative 5-year Total Return from 2016 to 2020 Index (Dec. 2015 = €1)



2020 UK SPOTLIGHT

STOXX® EUROPE 600
UK COMPANIES

FTSE 100



Number of Companies

Total Goodwill Impairment (€ mn)

Number of Events

Industries*	STOXX® Europe 600 UK Cos.	FTSE 100	STOXX® Europe 600 UK Cos.	FTSE 100	STOXX® Europe 600 UK Cos.	FTSE 100
Energy	3	2	2,677	226	3	2
Communication Services	8	7	2,347	2,347	2	2
Consumer Staples	12	10	2,267	2,257	7	5
Consumer Discretionary	22	16	2,178	335	6	3
Financials & Real Estate	38	24	1,626	1,522	12	9
Industrials	24	14	409	12	3	1
Utilities	6	5	156	-	1	0
Materials	13	14	108	108	1	1
Information Technology	5	4	58	21	2	1
Healthcare	7	4	-	-	0	0
Total†	138	100	11,826	6,828	37	24

* Industries are listed in descending order of their total goodwill impairment amounts for 2020.

† Amounts shown are aggregates. Differences due to rounding.

2020 STOXX® EUROPE 600 INDUSTRY SPOTLIGHT

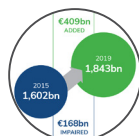
The STOXX® Europe 600 Industry Spotlight provides an in-depth focus on relevant metrics and statistics for the index.

The Industry Spotlight displays a variety of data for calendar year 2020.

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

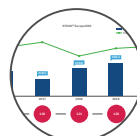
Goodwill Trends

Shows aggregate goodwill balances for year-end 2015 and 2020, as well as the cumulative goodwill additions and impairments over that five-year period for companies in the STOXX® Europe 600 Index.*



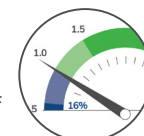
Impairment History

Presents annual goodwill impairment amounts and number of impairment events for the STOXX® Europe 600 Index over the 2016–2020 period. The median market-to-book ratio (blue line) provides some context for the annual impairment measures.



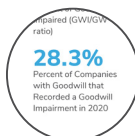
Market-to-Book Ratio Distribution

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.



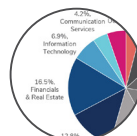
Summary Statistics

Depicts the following calendar-year 2020 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) Per cent of Companies with Goodwill; and (v) Per cent of Companies with Goodwill that Recorded a Goodwill Impairment within the STOXX® Europe 600 Index.



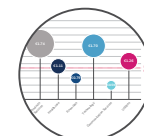
Size of Industry

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 capitalisation at the end of 2020.



Index

Shows the five-year cumulative returns of the 10 industry sector sub-indices and the STOXX® Europe 600 Index overall over the 2016–2020 period.[†] Summarises the relative performance of each industry, reflecting what a €1 investment at the end of 2015 would be worth at the end of 2020.



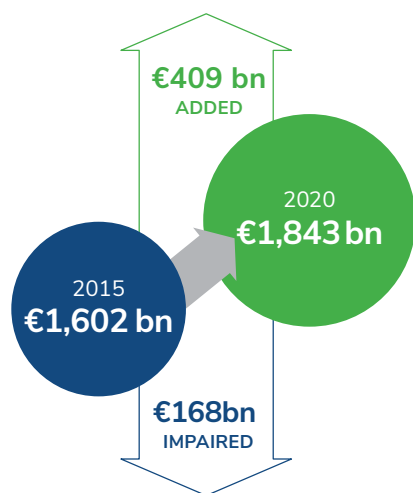
* Because companies regularly move into and out of the STOXX® Europe 600 Index (the typical annual churn rate is approximately 40 companies), this comparison does not include the same set of companies every year, which may slightly distort the figures presented for goodwill trends.

[†] STOXX® Europe 600 industry sub-indices are constructed by the index provider for 10 industries based on the Industry Classification Benchmark (ICB). This is a different industry classification from that used throughout the 2020 Study, which is based on Global Industry Classification System (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.

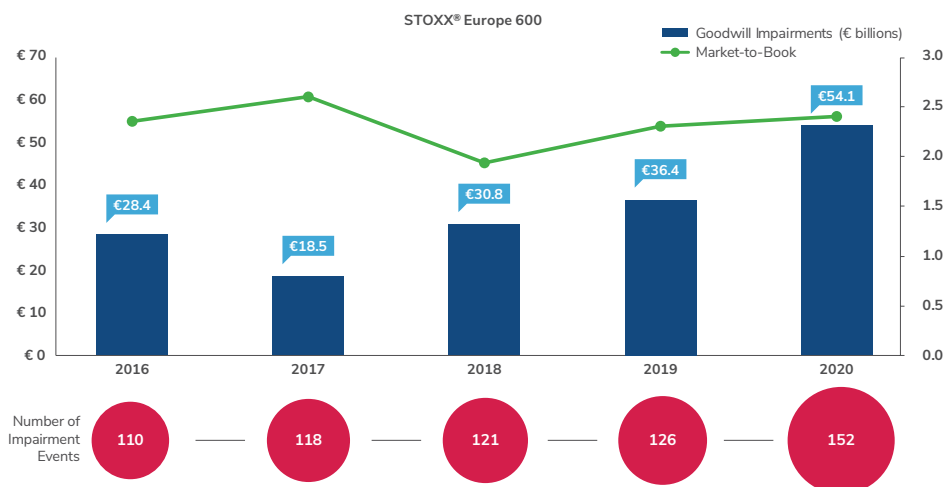
In September 2020, the index provider implemented changes to the ICB sector-classification structure resulting in the discontinuation of the Consumer Services and Consumer Goods indices that were used in prior studies. The Consumer Products and Services supersector index has been selected as a replacement.

2020 STOXX® EUROPE 600 COMPOSITE INDUSTRY SPOTLIGHT

Goodwill Trends 2015-2020

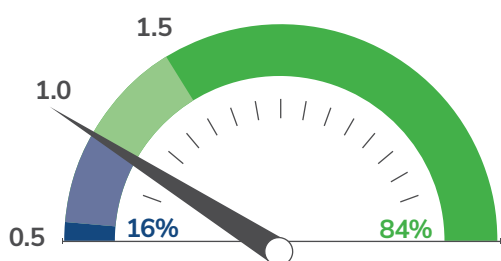


Goodwill Impairment History



Market-to-Book Ratio Distribution

(Based on Number of Companies)



(Percentages of Companies Below / Above 1.0)

589

Companies

2.8%

Per cent of Goodwill
Impaired (GWI/GW
ratio)

2.4

Market-to-Book
Ratio (median)

91.2%

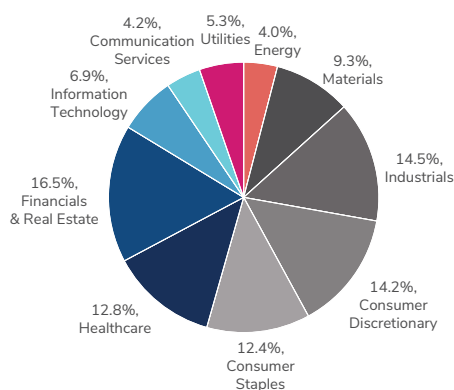
Companies with
Goodwill

28.3%

Per cent of Companies
with Goodwill that
Recorded a Goodwill
Impairment in 2020

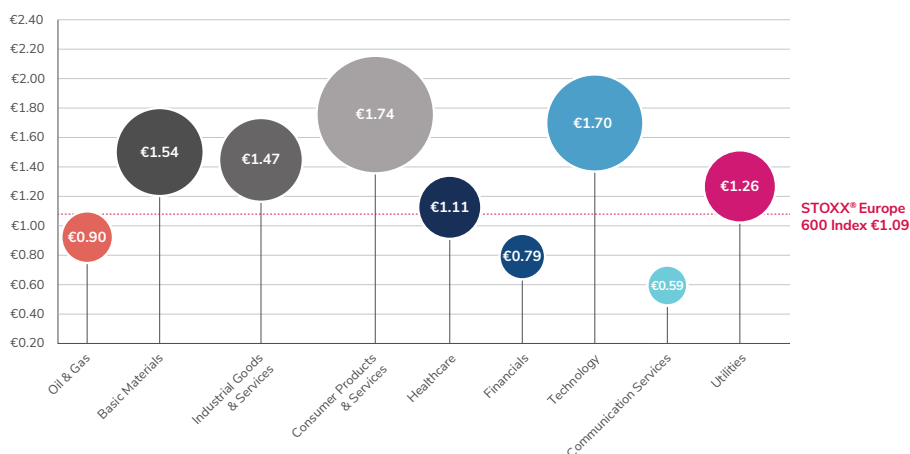
Size of Industry – 2020

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



Cumulative 5-year Terminal Index Value 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 Industry Group, as defined by Global Industry Classification Standard (GICS)

GICS Code	GICS Industry Group Name	Number Cos.	% of Cos. with GW	GW/TA	GWI/GW	% of Cos. with GW that Recorded GWI	Goodwill Impairment (in € mn)	Market-to-Book Ratio
Energy							€3.9 (industry group total)	
1010	Energy	16	93.8%	3.3%	7.8%	46.7%	€3.9	1.0
Materials							€5.7 (industry group total)	
1510	Materials	53	92.5%	11.3%	4.3%	20.4%	€5.7	2.3
Industrials							€3.3 (industry group total)	
2010	Capital Goods	81	95.1%	17.0%	1.1%	18.2%	€2.3	3.7
2020	Commercial & Professional Services	19	100.0%	37.7%	1.3%	36.8%	€0.6	6.7
2030	Transportation	13	84.6%	9.6%	1.3%	45.5%	€0.4	3.6
Consumer Discretionary							€3.7 (industry group total)	
2510	Automobiles & Components	12	91.7%	3.7%	1.6%	36.4%	€0.9	1.3
2520	Consumer Durables & Apparel	22	86.4%	15.2%	0.5%	26.3%	€0.3	3.3
2530	Consumer Services	13	100.0%	21.8%	8.1%	46.2%	€2.3	3.5
2550	Retailing	16	100.0%	9.0%	1.5%	25.0%	€0.2	6.6
Consumer Staples							€4.9 (industry group total)	
3010	Food & Staples Retailing	12	100.0%	11.1%	0.3%	8.3%	€0.1	2.5
3020	Food, Beverage & Tobacco	29	100.0%	33.2%	1.4%	44.8%	€3.7	3.5
3030	Household & Personal Products	6	100.0%	25.4%	2.2%	50.0%	€1.1	4.3
Healthcare							€3.1 (industry group total)	
3510	Healthcare Equipment & Services	22	100.0%	32.6%	0.8%	18.2%	€0.6	5.2
3520	Pharmaceuticals, Biotechnology & Life Sciences	30	80.0%	24.0%	1.4%	12.5%	€2.5	4.4
Financials							€22.6 (industry group total)	
4010	Banks	36	94.4%	0.3%	18.0%	52.9%	€ 18.1	0.6
4020	Diversified Financials	33	87.9%	1.1%	2.9%	31.0%	€ 2.2	1.4
4030	Insurance	32	100.0%	0.8%	0.8%	18.8%	€ 0.5	1.0
6010	Real Estate	41	43.9%	1.5%	26.2%	44.4%	€ 1.8	1.2
Information Technology							€0.3 (industry group total)	
4510	Software & Services	20	95.0%	41.4%	0.0%	15.8%	€0.0	6.6
4520	Technology Hardware & Equipment	7	100.0%	19.6%	1.1%	28.6%	€0.2	4.6
4530	Semiconductors & Semiconductor Equipment	6	100.0%	18.1%	0.7%	22.2%	€0.0	4.7
Communication Services							€3.9 (industry group total)	
5010	Telecommunication Services	19	100.0%	18.4%	1.7%	26.3%	€3.0	1.9
5020	Media & Entertainment	18	100.0%	28.9%	1.0%	33.3%	€0.9	3.1
Utilities							€2.7 (industry group total)	
5510	Utilities	30	96.7%	6.7%	2.5%	24.1%	€2.7	2.0

*Any differences in totals are due to rounding.



APPENDIX 1: COMPANY BASE SET SELECTION AND METHODOLOGY

The 2021 Study focused on financial data for companies in the STOXX® Europe 600 Index for the period 2016–2020. In addition, the 2021 Study includes goodwill impairment metrics for five additional country benchmark stock indices: CAC 40 (in France), DAX (in Germany), IBEX 35 (in Spain), FTSE 100 (in the UK) and the FTSE MIB (in Italy). Accordingly, data for the constituents of each of the indices was collected for the 2016–2020 period, for comparison purposes, following a similar methodology to that employed for the STOXX® Europe 600 Index. The primary sources of data for the 2021 Study were S&P Global's Capital IQ database and individual company annual and interim financial reports.

The 2021 Study relies upon the Global Industry Classification Standard (GICS®) structure as of the end of calendar year 2020 for industry classification purposes. In September 2018 the GICS® structure was revised to reflect the evolution and convergence of telecommunications, media and internet companies. As a result, the Telecommunication Services sector was broadened and renamed 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 then used to calculate all ratios and summary statistics throughout the 2021 Study:†

- The 2021 Study used index constituents at the end of calendar year 2020 to form the annual dataset.‡
- The STOXX® Europe 600 Index is reviewed on a regular basis, with rebalancing typically conducted quarterly. The process results in an annual turnover in constituents that affects comparability with prior years. Also, because companies that have seen significant declines in market capitalisation are often removed from the index, any subsequent impairment events will not be captured in the Study.

- 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 five country benchmark stock indices.§
- 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 goodwill impairment amounts disclosed within discontinued operations or disposal groups when identified.
- 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 2021 Study.

* S&P Global Market Intelligence; S&P Capital IQ database. 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 database and subsequent analytical procedures applied to the data were performed by Duff & Phelps. The information presented in this report has been obtained with the greatest of care from sources believed to be reliable but is not guaranteed to be complete, accurate or timely. While most of the information for the 2016–2019 period was carried forward from the 2020 Study, certain historical financial data was adjusted from what was previously reported to correct certain database errors. These corrections did not materially impact the historical trends observed for goodwill impairments.

† Although most of the companies in the STOXX® Europe 600 Index prepare financial statements in accordance with International Financial Reporting Standards (IFRS), some use other accounting standards, such as Swiss Generally Accepted Accounting Standards (GAAP) or U.S. GAAP. Neither the 2021 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. Companies filing in accordance with either U.S. GAAP or Swiss GAAP accounted for approximately 5% of the total impairment amount in 2018, whereas in 2019 there were no impairments registered by these types of filers. In 2020, the share of the aggregate goodwill impairment recorded by either U.S. GAAP or Swiss GAAP filers rose to approximately 10%.

‡ Source: Bloomberg. Stock-market indices are reviewed regularly for component changes and are typically adjusted on a quarterly basis. Our methodology utilises index members as of the end of each year for each of the indices included in the study.

§ This analysis resulted in the elimination of 11, 13, 15, 13 and 11 companies from the dataset in 2016, 2017, 2018, 2019, and 2020, respectively. Consequently, Tables 1 and 2 show that 2020 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, 40, 35 and 100 companies were included respectively in the CAC 40, DAX, FTSE MIB, 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
2020	CHF	1.082
	CZK	26.261
	DKK	7.443
	EUR	1.000
	GBP	0.896
	NOK	10.484
	PLN	4.569
	SEK	10.046
	USD	1.223
	ZAR	17.924
2020	CHF	1.087
	CZK	25.419
	DKK	7.472
	GBP	0.847
	NOK	9.865
	PLN	4.252
	SEK	10.483
	USD	1.122
	ZAR	15.704
2018	CHF	1.127
	CZK	25.733
	DKK	7.465
	GBP	0.898
	NOK	9.923
	PLN	4.293
	SEK	10.175
	USD	1.145
	ZAR	16.472
2017	CHF	1.170
	CZK	25.543
	DKK	7.445
	GBP	0.888
	NOK	9.829
	SEK	9.829
	USD	1.201
2016	CHF	1.072
	CZK	27.020
	DKK	7.435
	GBP	0.855
	NOK	9.083
	SEK	9.582
	USD	1.056

Year	Currency	Per €1
30/9/2020	GBP	0.908
30/6/2020	GBP	0.909
31/3/2020	GBP	0.883
30/9/2020	GBP	0.887
30/6/2020	GBP	0.895
31/3/2020	GBP	0.862
30/9/2018	GBP	0.891
30/6/2018	GBP	0.884
31/3/2018	GBP	0.878
30/9/2017	GBP	0.882
30/6/2017	GBP	0.878
31/3/2017	GBP	0.854
30/9/2016	GBP	0.791
30/6/2016	GBP	0.835
31/3/2016	GBP	0.863

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