

Dear Reader

The COVID-19 pandemic has placed an unprecedented burden on our global economy. Unlike other crises we have faced in the past decades, COVID-19 has caused fundamental disruptions in global supply chains and will have a lasting impact on consumer behavior. As we approach 2022, we may now begin to assess the impact these remarkable pressures have placed on businesses and their expectations for the future.

In this edition of the Quarterly Brief, we examine 2020/2021 and observe what has happened through the lens of goodwill impairment in Europe. We will attempt to compare recent developments with those of the past 15+ years, including prior major economic crises, to identify similarities at the sector level.

In this newsletter, we explore:

- What is the broader impact of COVID-19 on goodwill impairment?
- How do the levels of goodwill impairment compare to the 2008 global financial crisis and the 2012 European debt crisis?
- What has been observed at the sector level?

In addition, we share with you our summary of key capital market data such as index performance, sector multiples, risk-free rates, country risk premiums and growth rates for selected markets. This can all be found in the final sections of this Quarterly Brief.

We look forward to discussing your questions regarding COVID-19's impact on goodwill impairment trends as we look ahead to 2022. As always, stay safe and healthy.

Yours faithfully



Johannes Post Partner, Deal Advisory Global Head of Valuation Services



Rolf Langenegger Director, Deal Advisory Valuation / Financial Modelling



Simon Laval
Director, Deal Advisory
Valuation and Financial Modelling

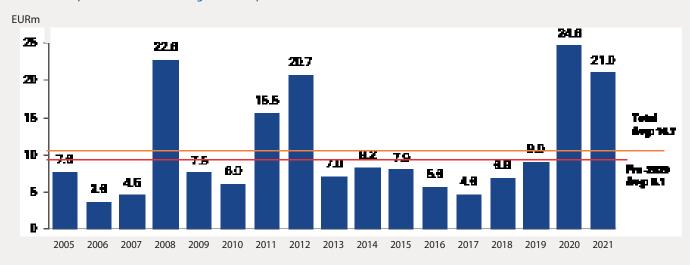
The big picture

In 2020/2021, businesses across the globe raced to reassess the economic viability of prior projections upon which acquisitions were made, purchase prices determined, and, consequently, goodwill reported on their balance sheets. Many companies have not simply revisited their cash flow forecasts and discount rates; they have acknowledged the need to carefully reassess company value and whether it has declined more significantly than under normal conditions and whether existing budgets and cash flow projections should be abandoned completely due to the impact of COVID-19.

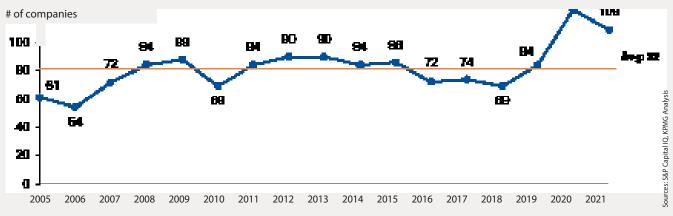
Overall, 2020 saw a historic increase in the number of companies who booked goodwill impairment. As shown in the figure below, 123 companies in the S&P 500 Europe index impaired goodwill, up 46.4% compared to 2019 (84 companies) and up 78.3% from the 69 who did so in 2018.

The impact is even more apparent when we look at the median amount of goodwill impairment booked. In Euro terms, the median amount of goodwill impairment over the past 15 years prior to 2020 was approximately EUR 9.1m, i.e. 63% lower than 2020. In addition, median goodwill impairment is up 173% in 2020 compared to the median of EUR 9.0m in 2019.

S&P 500 Europe - Median amount of goodwill impairment booked



Total number of companies who booked impairment



Deeper and wider: comparison to 2008 financial crisis and European debt crisis of 2012

The number of companies who have experienced goodwill impairment during 2020/2021 is unrivaled, even dwarfing the level seen during the 2008 global financial crisis and the 2012 European debt crisis. Even more intriguing is the level at which goodwill impairment is spread across various sectors.

As shown on the right, the median amount of goodwill impairment across the 84 companies who booked impairment in the S&P 500 Europe index in 2008 was EUR 22.6m. In contrast, this figure was EUR 24.6m for the 123 companies who booked impairment in 2020. The year 2020 also surpassed the European debt crisis of 2012, which had a median goodwill impairment per company of EUR 20.7m for the 90 companies who booked goodwill impairment.

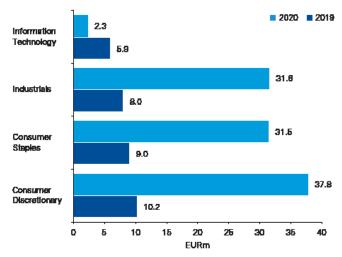
This comparison appears to reveal that COVID-19 has had a deeper and much wider impact on goodwill impairment than the two largest economic crises in the past 15 years.

Without a doubt, COVID-19 marks a monumental economic and social event with impacts on impairment across sectors. In the following, we explore whether some have been hit more severely than others.

Sector-level observations

Of the eleven sectors examined, eight experienced at least a 30% increase in the number of companies who booked goodwill impairment when compared to the prior 15-year average of each sector. The figure below displays the sectors exhibiting the largest increases (or decrease in the case of the IT sector) in median goodwill impairment booked between 2019 and 2020.

Median Goodwill Impairment - 2019 vs 2020



Source: S&P Capital IQ, KPMG Analysis

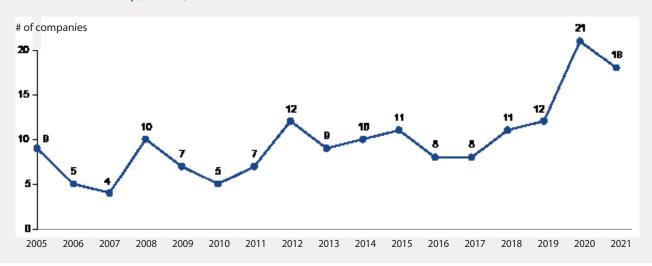


In the 12th edition of our Quarterly Brief, we noted that analysts generally expected the largest impacts of COVID-19 to be felt within the Consumer Discretionary sector and the least negative effects in the Information Technology sector. Based on our analysis of goodwill impairment, these expectations appear to align with the goodwill impairment bookings in 2020.

Consumer sectors heavily impaired

As shown below, Consumer Discretionary showed a large increase in the number of companies booking impairment in 2020 compared to historic averages, with 21 of 64 companies in the index booking impairment. This represents a 75% increase compared to the 12 companies reported in 2019.

Consumer Discretionary (Total: 64)



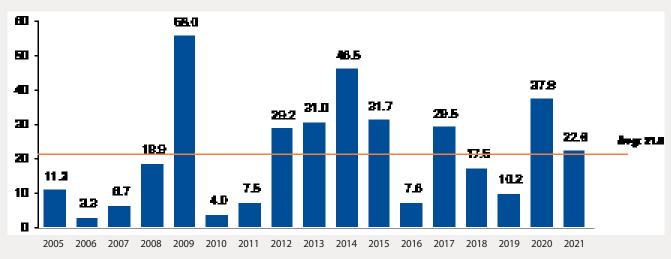
Source: S&P Capital IQ, KPMG Analysis

In Euro terms, the Consumer Discretionary sector recorded in 2020 a median goodwill impairment of EUR 37.8m, nearly four times that of 2019 and significantly higher than the historical annual average of EUR 21.8m. Compared to the record high of EUR 56.0m in 2009, i.e. in the wake of the

2008 financial crisis, average goodwill impairment was much lower in 2020. Interestingly, a significantly smaller number of companies were affected in 2008/2009 compared to 2020.

Consumer Discretionary





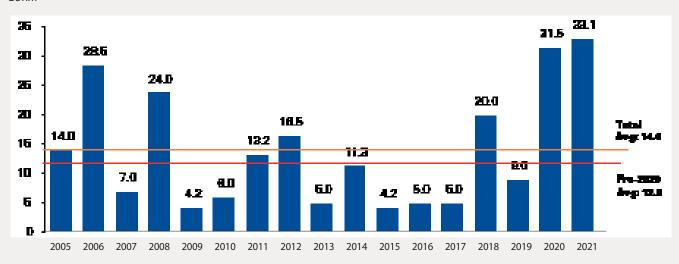
Source: S&P Capital IQ, KPMG Analysis

Consumer Staples also showed heavy impairment. As shown below, Consumer Staples saw a 250% increase in the median amount of goodwill impairment booked – from

EUR 9.0m in 2019 to EUR 31.5m in 2020. In 2021, this figure continued to increase, reaching EUR 33.1m at the time of this writing.

Consumer Staples

EURm



Source: S&P Capital IQ, KPMG Analysis

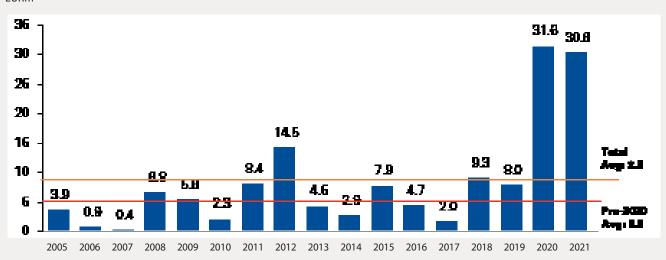
Industrials 478% above pre-2020 15-year average

As shown below, a massive increase in the amount of goodwill impairment in 2020 and 2021 is observed in the Industrials sector compared to the prior 15 years since 2005. At 26, the number of companies in the Industrials sector in the index who booked impairment was a "mere"

61.2% higher than the prior 15-year average of 16. However, in Euro terms, the median amount of goodwill impairment booked was EUR 31.6m, or 478% higher than the prior 15-year annual average of EUR 5.0m. Compared to the median goodwill impairment of EUR 8.0m in 2019, Industrials experienced a 295% increase.

Industrials

EURm



Source: S&P Capital IQ, KPMG Analysis

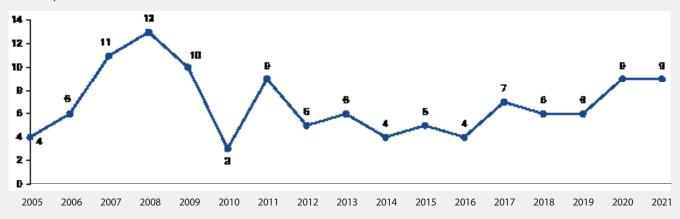
Impairment muted in Information Technology; below annual average since 2005

As shown below, Information Technology showed a minor increase in the number of companies booking goodwill

impairment in 2020. Out of the 50 companies in the sector, nine booked impairment in 2020, up from six in 2019. By comparison, in 2008 the number of companies who booked goodwill was even higher at 13 companies.

Information Technology (Total: 50)

of companies



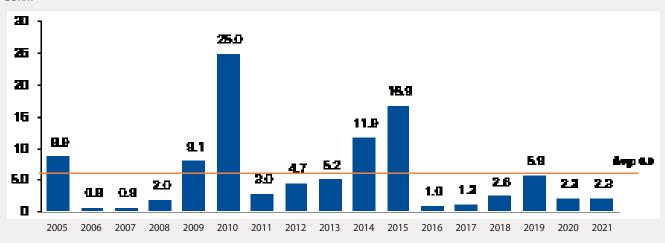
Source: S&P Capital IQ, KPMG Analysis

In Euro terms, the Information Technology sector showed a median goodwill impairment of only EUR 2.3m, well below than the average level of annual goodwill impairment in the

sector of EUR 6.0m since 2005 and much lower than the high of EUR 25.0m recorded in 2010. In fact, 2020 showed less goodwill impairment than in 2019, as shown below.

Information Technology

EURm



Source: S&P Capital IQ, KPMG Analysis

An expert view on the complexity of goodwill impairment

The analysis above demonstrates – as is so often the case in the COVID-19 pandemic – that trends can vary significantly by sector. This calls for a thorough, individual analysis of each situation. KPMG Valuation Services regularly assists companies of all sizes and sectors with impairment testing. Estimating fair value and/or value-in-use

requires significant informed judgment, even under normal circumstances. During these times of elevated uncertainty, enhanced consideration of individual facts and circumstances within our rapidly changing economic environment is required. KPMG's valuation specialists would be happy to talk and share our views with you and help you navigate through these issues.





In this section, we provide a selection of key financial market data covering:

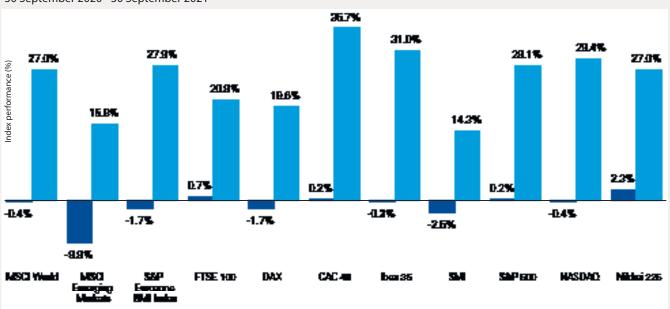
- Comparison of major stock market performance for the 12 months ending 30 September 2021
- S&P Eurozone BMI Index sector multiples
- Risk-free rates for major currencies
- Country risk premiums and inflation forecasts for the BRIC countries

Major stock market performance: Ongoing strong yearover-year performance of most main indices – how long will this trend last?

Returns of approximately 30% for seven out of eleven indices underline the continuing trend of strong markets. Despite no longer accounting for the extreme volatility in the first two quarters of the COVID-19 pandemic on a 12-month look back period, the bullish markets continue to show remarkable return figures:

Performance of leading indices

30 September 2020 - 30 September 2021



Source: Capital IQ, KPMG analysis

To assess whether these elevated returns for most stock indices imply an ongoing trend in spite of the already high

overall market levels, we analyzed the same indices over the last quarter:

Returns - QoQ 30 June 2021 until 30 September 2021										
MSCI World	MSCI Emerging Markets	S&P Eurozone BMI Index	FTSE 100	DAX	CAC 40	lbex 35	SMI	S&P 500	NASDAQ	Nikkei 225
(0.4)%	(8.8)%	(1.7)%	0.7%	(1.7)%	0.2%	(0.3)%	(2.5)%	0.2%	(0.4)%	2.3%

Source: Capital IQ, KPMG analysis

While at first glance the graph above indicates notable returns, the table shows that the bulk of this performance is attributable to the first half of the observation period. With negative quarter-over-quarter performance measures for over half of the observed indices, the seemingly unstoppable upward trend appears to be simmering down from the rolling boil we have been observing, at least for now. This cool-off over the last quarter is particularly pronounced for Emerging Markets, which declined by 8.8%.

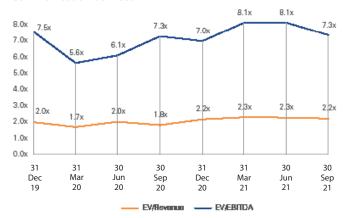
S&P Eurozone: Declining multiples for two consecutive quarters

Over the last two quarters, six out of the eleven sectors showed decreased EV/EBITDA multiples. While the decrease was relatively modest for most of the sectors, the impact for Consumer Discretionary, Energy, and Materials was substantial (-2.4x, -2.4x, and -2.7x, respectively). The change in the overall trend of mostly increasing multiples since the sharp drop in March 2020 amplifies the question of whether the bullish markets will continue to slow, or if multiples only paint the picture of a temporary slowdown.

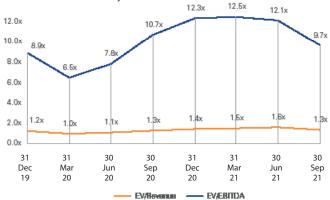
While the Materials EV/EBITDA sector multiple has declined primarily over the last quarter, it has mostly regained its pre-COVID-19 level (7.6x). A similar trend can be observed for the Energy sector, partially offsetting the significant gains of roughly 100% since March 2020. Real Estate and Utilities, on the other hand, are enjoying stable long-term levels, varying by less than 4.0% over the last four quarters.



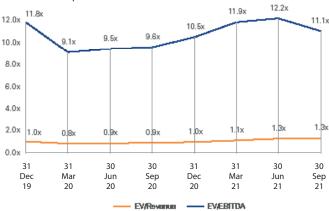
Communication Services

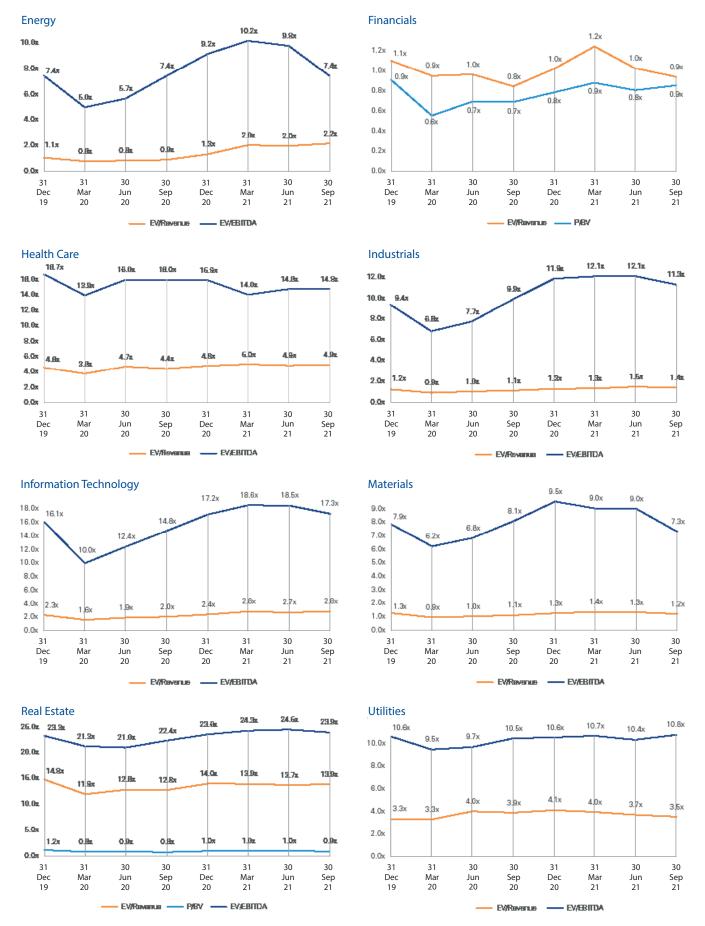


Consumer Discretionary



Consumer Staples





Source: Capital IQ, KPMG analysis

Notes: Multiples are analyzed based on the latest information available as of the assessment date for the respective edition of the Quarterly Brief. Changes of index composition, revised financial information, and newly available information as of the assessment date may cause multiples to change. Financial services companies differ from many other companies in how they operate. Debt acts more as "raw material" than operational capital for financial services companies. A common valuation metric used by analysts evaluating such firms is the price to book (P/B) ratio.

Risk-free rates: Steady across currencies

The risk-free rates have not materially changed in the last six months. As of 30 September 2021, all five risk-free rates analyzed were positive, a state last seen for two consecutive quarters in the period from 31 December 2019 to 30 June 2020. The risk-free rate for Switzerland has slightly

decreased over the last quarter to nearly 0.0%. For risk-free rates of Euro countries, Germany specifically, and the UK, there has been no notable change over two observation periods. The US risk-free rate continues to remain at a comparably higher level (above 2.2%).

Risk-free rates							
	EUR	EUR	GBP	+ CHF	USD		
30/06/2016	0.46%	0.49%	1.85%	(0.03)%	2.50%		
30/09/2016	0.53%	0.47%	1.61%	(0.06)%	2.48%		
31/12/2016	0.97%	0.95%	2.03%	0.35%	3.06%		
31/03/2017	1.25%	1.24%	1.88%	0.32%	3.27%		
30/06/2017	1.39%	1.33%	2.02%	0.39%	3.04%		
30/09/2017	1.40%	1.38%	2.05%	0.45%	3.04%		
31/12/2017	1.34%	1.34%	1.89%	0.36%	2.89%		
31/03/2018	1.25%	1.24%	1.79%	0.56%	3.08%		
30/06/2018	1.09%	1.12%	1.83%	0.51%	3.00%		
30/09/2018	1.13%	1.15%	1.87%	0.61%	3.10%		
31/12/2018	0.90%	0.94%	1.91%	0.37%	3.17%		
31/03/2019	0.67%	0.65%	1.65%	0.17%	2.96%		
30/06/2019	0.35%	0.33%	1.56%	0.02%	2.71%		
30/09/2019	(0.03)%	(0.03)%	0.88%	(0.36)%	2.25%		
31/12/2019	0.37%	0.34%	1.25%	(0.16)%	2.46%		
31/03/2020	0.06%	0.01%	0.68%	(0.20)%	1.54%		
30/06/2020	0.01%	(0.02)%	0.56%	(0.29)%	1.60%		
30/09/2020	(0.08)%	(0.11)%	0.72%	(0.32)%	1.61%		
31/12/2020	(0.13)%	(0.14)%	0.70%	(0.36)%	1.78%		
31/03/2021	0.26%	0.32%	1.29%	(0.01)%	2.55%		
30/06/2021	0.29%	0.31%	1.17%	0.05%	2.20%		
30/09/2021	0.26%	0.25%	1.29%	0.00%	2.21%		

Source: KPMG analysis

 $\label{proach:$



Country risk premium: Continuing decrease in CRPs

In line with the decreasing country risk premiums (CRPs) of Brazil and China observed in recent quarters, the premiums for Brazil and Russia continue to decrease by 10, up to 40 basis points, to 2.5%, and 1.6%, respectively. While the country risk premium for Brazil is at its lowest level since

30 June 2019, the premium for China has remained approximately steady over the last four quarters. In comparison, the country risk premium for India has increased by 10 basis points over the same observation period, staying in line with its long-term average.

Country risk premium								
	30 Jun 20	30 Sep 20	31 Dec 20	31 Mar 21	30 Jun 21	30 Sep 21		
	3.0%	3.1%	3.1%	3.0%	2.9%	2.5%		
	1.9%	2.0%	1.9%	1.9%	1.8%	1.6%		
•	2.0%	2.0%	2.0%	1.9%	1.8%	1.9%		
*:	0.6%	0.7%	0.7%	0.7%	0.7%	0.8%		

Source: KPMG CRP study

Growth rates: Growth expectations for Russia remain the highest

Growth rates are a major component of the terminal value calculation for the discounted cash flow method. Inflation forecasts are one of the typical indicators used to assess the long-term growth rate. The inflation rates for Brazil, Russia, India and China are based on the Economist Intelligence Unit's (EIU) inflation forecast for the years 2020 to 2025. The expected inflation can be measured through several parameters. For our presentation, we consider the Consumer Price Index (CPI) and the GDP deflator. The CPI is a measure that examines the weighted average of prices of a basket of consumer goods and services, while the GDP deflator, calculated as the

difference between nominal and real GDP, measures the change in prices for all of the goods and services produced in an economy.

Measured based on both the GDP deflator and the CPI as presented by EIU, the inflation forecast observed for Russia continues to be the highest of all countries analyzed. While the GDP deflator for India is expected to stay at a steady level of 3.8% in 2025, the CPI measure surpassed it by 40 basis points for the same forecast year. In comparison, the growth expectations inherently measured by the GDP deflator are expected to equal 4.2% and 2.8% for India and Brazil, respectively. The CPI of 1.2% and GDP 2.2% indicated for China remain the lowest over all the countries analyzed.

Inflation forecast							
Country		2021	2022	2023	2024	2025	
	СРІ	7.5%	5.0%	3.3%	3.2%	3.2%	
	GDP Deflator	7.4%	3.2%	2.5%	2.6%	2.8%	
	СРІ	5.8%	4.7%	4.1%	4.0%	4.1%	
	GDP Deflator	10.7%	4.4%	4.4%	4.3%	4.5%	
•	СРІ	5.0%	4.6%	4.3%	4.0%	4.2%	
	GDP Deflator	2.5%	3.7%	3.3%	3.4%	3.8%	
*):	СРІ	1.2%	1.6%	1.7%	1.5%	1.2%	
	GDP Deflator	1.2%	2.7%	2.5%	2.3%	2.2%	

Source: Economist Intelligence Unit

Your contacts

KPMG Bulgaria 45A Bulgaria Blvd. 1404 Sofia Tel: +359 2 9697 300

Zdravko Moskov Partner, Advisory KPMG in Bulgaria +359 885 698 826 zmoskov@kpmg.com

Kiril Gochev Manager, Deal Advisory KPMG in Bulgaria +359 879 639 616 kgochev@kpmg.com

home.kpmg/bg

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received, or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation. The scope of any potential collaboration with audit clients is defined by regulatory requirements governing auditor independence. If you would like to know more about how KPMG AG processes personal data, please read our Privacy Policy, which you can find on our homepage at www.kpmg.com/bg.

© 2021 KPMG Bulgaria OOD, a Bulgarian limited liability company and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.