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## Article

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## ACCOUNTING, CORPORATE GOVERNANCE & BUSINESS ETHICS | RESEARCH ARTICLE

# Goodwill impairment and key audit matters

Inês Gonçalves<sup>1</sup>, Ana Isabel Morais<sup>2\*</sup> and Inês Pinto<sup>2</sup>

**Abstract:** The main goal of this paper is to analyze the factors that influence the auditor's decision to disclose goodwill impairment as a key audit matter (KAM). For this analysis, we use a logit model to determine the factors that influence auditors' disclosure of a goodwill impairment as a KAM. Our sample comprises 92 companies listed in the stock market indices of Germany (DAX 30), Belgium (BEL 20), Spain (IBEX 35), France (CAC 40), the Netherlands (AEX), and Portugal (PSI 20) as of the 2017 fiscal year-end. The results show that in highly profitable companies or in those with strong corporate governance, the auditor is less likely to disclose goodwill impairment as a KAM. Findings also show that the economic significance of goodwill holds significant influence over the auditor's decision-making even in companies with strong governance structures. The contribution of this paper is the provision of direct evidence on what motivates auditors to disclose goodwill impairment as a KAM. Findings show a direct relationship between profitability, corporate governance, and the disclosure of goodwill impairment as a KAM.

**Subjects:** Finance; Business, Management and Accounting; Regulation

**Keywords:** goodwill impairment; audit report; key audit matters; corporate governance

### 1. Introduction

Accounting for goodwill has been a topic of much debate among practitioners, users, and standard setters because of the difficulty in accurately determining changes in its economic value (André et al., 2016). In response, academics have extensively discussed alternative methods for the subsequent accounting of goodwill (Carcello et al., 2020; Linsmeier and Wheeler, 2021).

According to IFRS 3 – Business Combination (revised), goodwill constitutes an “asset that represents future economic benefits resulting from other assets acquired in a business combination that are not individually identified or separately recognized” (International Accounting Standards Board (IASB, 2008). It results from the positive difference between the cost of business activities and the fair value of the assets acquired. The IASB revised its approach to accounting for goodwill in 2004 with the aim of achieving global convergence and harmonization with the Financial Accounting Standards Board (FASB). The change shifted the method from amortization-and-impairment to impairment-only. With the impairment-only method, the IASB no longer requires companies to amortize goodwill but instead mandates that they perform periodic tests to assess whether goodwill has been impaired.

While many academics, users, and practitioners view the impairment-only method for goodwill as more value relevant (Tunyi et al., 2020), some consider this approach to present several limitations related to its fair value (Ferramosca and Allegrini, 2021). Several studies have shown that managers use the available discretion in estimating goodwill to manage results that impairs the relevance of financial information (Beatty and Weber, 2006; Ramanna and Watts, 2012). Due to several critics of this method, the IASB's Post-implementation Review (PIR) of IFRS 3 relaunched the debate on the best method to use in the accounting of goodwill. Supporters of the amortization approach argue that it provides a simpler way to recognize the decline in the carrying amount of goodwill, thereby eliminating the subjectivity involved in estimating the value of goodwill for impairment calculations. However, the 2019 has emphasized that IASB's preliminary view is that reintroducing the amortization of goodwill would not significantly enhance the information available to users of financial statements; instead, the IFRS argued that the IASB should streamline the information to reduce the cost and complexity of the impairment test. In November 2022, after a period of evaluation, the IASB decided to maintain the impairment-only approach to account for goodwill.<sup>1</sup>

However, a conflict of interest between managers and auditors may arise because the impairment-only method increases the degree of management discretion in the financial reporting of goodwill and because auditors are required to validate the reasonableness of the goodwill's value (Carcello et al., 2020; He et al., 2021). While auditors should seek to disclose reliable information to investors, managers may not want to recognize an impairment of goodwill to avoid disclosing information to investors that would negatively affect the value of the company (Ayres et al., 2019). These potential misalignments make the determination of goodwill impairments an area of great importance to auditors and has become a topic with substantial prominence in their expanded reports. Pinto et al. (2020) provide evidence that IAS 36 – Impairment of Assets is the accounting standard that auditors most often cite as the reason for the KAM. The IAS 36 is also one of the standards which record the highest number of enforcements in the list of decisions published by The European Securities and Markets Authority (ESMA) from 2005 to 2018 (Morais and Pinto, 2023).

We can conclude that goodwill accounting is a crucial area for external auditors. The new and expanded auditor report, which identifies significant areas of risk (such as KAMs), should play a key role in monitoring the reported goodwill write-offs that should reduce the auditor's risk of litigation (Gold et al., 2020; Pinto and Morais, 2019). It is important to note that accounting for goodwill can create a misalignment of incentives between the auditor and the client, potentially calling into question the auditor's independence. Therefore, it is relevant to understand the factors that lead managers to disclose a KAM regarding goodwill.

Consequently, the main goal of this paper is to analyze the factors that influence the auditor's decision to disclose a goodwill impairment as a KAM.

To accomplish this objective, we analyze a sample consisting of 92 observations in 2017 from companies listed on the German (DAX 30), Belgium (BEL 20), Spain (IBEX 35), France (CAC 40), the Netherlands (AEX), and Portugal (PSI 20) stock indices as of the 2017 year-end. We estimate a logit model to test whether the auditor's decision to report a goodwill impairment as a KAM is influenced by an entity's profitability and corporate governance.

The results show the existence of a negative relationship between a company's profitability and the auditor's decision to report the impairment of goodwill as a KAM. They also show that in companies with strong corporate governance, the auditor is less likely to disclose this type of KAM. Finally, it is possible to observe that in larger companies with a high level of goodwill, the auditor is more likely to identify a goodwill impairment as a KAM.

This paper makes several important contributions to the literature. First, it presents direct evidence on the factors that motivate auditors to disclose goodwill impairment as a KAM.

Although guidelines exist for determining whether an issue constitutes a KAM, the decision ultimately relies on professional judgement. Therefore, it is crucial to identify the determinants that influence auditors' decisions to disclose goodwill impairments; an area where management discretion is high. Understanding these determinants is essential for two main reasons. First, disclosing the impairment of goodwill as a KAM draws the attention of users to the relevant disclosures in the financial statement (Orquin and Loose, 2013). Second, since KAMs are more concise and reliable than other disclosures (Christensen et al., 2014), users may use them as substitutes.

The second contribution of this paper to the literature is the identification of the relationship among profitability, corporate governance, and the disclosure of a goodwill impairment as a KAM. The IASB emphasizes the need to reduce the cost and complexity of impairment testing (IFRS Foundation, 2019), and auditors' disclosures can aid in achieving this goal.

Third, this paper adds to the discussion on goodwill accounting by demonstrating the factors that may influence auditors to disclose KAMs related to goodwill. These factors are crucial for investors to gain a better understanding of the areas of risk disclosed in financial statements, and for standard-setters to be aware of the limitations and risks associated with the impairment-only method for goodwill.

The paper is divided into five sections. The next section provides background information. Section 3 presents the literature review and the hypotheses. In section 4, we describe the sample and the method; and in Section 5, we discuss the empirical results. Section 6 presents several additional tests; and Section 7 presents the main conclusions, limitations, and suggestions for future research.

## 2. Background

In search of international convergence and accounting harmonization with North American standards, the IASB published IFRS 3 - Business Combinations and the related amended versions of IAS 36 - Impairment of Assets in 2004. In this context, goodwill acquired in a business combination ceased to be systematically amortized and companies now had to test for goodwill impairment annually or more frequently by carrying out impairment tests in accordance with IAS 36 (IFRS 3, §55) (International Accounting Standards Board IASB, 2004). Under IAS 36, goodwill should be allocated to cash-generating units, and the recoverable amount of these cash-generating units should be the higher between the fair value less costs of disposal (based on the markets' perspective) and the value in use (based on companies' perspective). The impairment tests, in particular the measurement of the recoverable amount, require managers to make professional judgments on their accounting estimates (AbuGhazaleh et al., 2011); namely, they must project future cash flows from the cash-generating unit, the discount rate (Schatt et al., 2016), and the long-term growth rate (Avallone and Quagli, 2015). While many studies have supported the impairment-only method as being more value relevant and as reflecting the economic reality of an entity (Chalmers et al., 2011), some have criticized it as being used to manage earnings (Giner and Pardo, 2015; Pajunen and Saastamoinen, 2013; Schatt et al., 2016). In this context, goodwill may constitute a significant risk area in the audit process due to the difficulty in determining its recoverable amount (Ayres et al., 2019).

In 2015, the IASB published the report of the PIR of IFRS 3. This report showed the usefulness of goodwill and its impairment (D'Arcy and Tarca, 2018) but also highlighted the complexity, the expensiveness, and the subjectivity inherent to the impairment tests. Consequently, the IASB decided to add to its agenda a research project on goodwill and impairment with the objective of assessing whether they should make changes to the existing impairment tests for goodwill and whether other intangible assets should be separated from goodwill. In 2020, the IASB published the Discussion Paper about Business Combinations—Disclosures, Goodwill and Impairment in which they kept the existing approach, that is, the goodwill is tested for impairment and not amortized. The IASB believed

that significantly improving the effectiveness of the impairment tests at a reasonable cost was not feasible and the amortization of the goodwill would not significantly improve financial reporting. However, the Board also believed that it was possible to simplify the impairment test quantitatively when there is an indication of impairment, instead of a mandatory annual impairment test.

In 2022, without sufficient evidence for change, the IASB decided to retain the existing impairment-only model for the subsequent measurement of goodwill and not to reintroduce amortization. To improve the information about business combinations, the IASB proposed to request better disclosure on the subsequent performance of business acquisitions.

Because goodwill impairment tests involve complex judgements (such as the determination of the recoverable amount) and goodwill often has a significant weight as an asset in the statement of financial position, the goodwill valuation is frequently disclosed as a KAM in the auditor's report. The International Standard on Auditing (ISA) 701, published by the IAASB and applicable to audits of financial statements for periods ending on or after 15 December 2016 (ISA 701, §6), defines relevant audit matters, such as "the matters which, in the auditor's professional judgment, were of the greatest importance in the audit of the current period's financial statements" (ISA 701, §8). For its determination, the auditor should, among the matters communicated to those charged with governance, highlight those that required special attention in the performance of the audit while taking into account three areas: areas of high risk of material distortion; significant auditor judgments concerning areas of the financial statements that involved significant judgments of those charged with governance, including accounting estimates classified as having high estimation uncertainty; and the effect on the audit of significant events and transactions that took place during the current period (ISA 701, §9). The valuation of goodwill poses some challenges to auditors; due to the subjectivity of the impairment tests, auditors and managers may have different opinions (Ayres et al., 2019). Auditors may perceive a goodwill impairment as a signal of information risk and disclose it as a KAM to avoid litigation (Glaum et al., 2018); but there is a motivation for managers to influence external auditors through non-audit fees in the presence of goodwill impairments (Carcello et al., 2020). Further, the existence of goodwill impairment increases the level of the auditors' work and, consequently, the audit fees (Ghosh and Xing, 2021).

### 3. Literature review and hypotheses

The impairment of goodwill is one of the main uses of KAMs by auditors in the scope of the disclosure of KAM (Pinto and Morais, 2019). Several studies highlight the economic relevance of this asset all over the world, they have shown that the ratio between goodwill and the total assets is, on average, 16% to 17% (André et al., 2016; Glaum et al., 2018).

Chalmers et al. (2011) have verified that the IASB prefers the impairment-only model to the amortization one because it more accurately represents the economic value of this asset. However, other studies indicate that the impairment-only approach to goodwill leads to an increase in managerial discretion. Giner and Pardo (2015) find that managers engage in unethical behavior by using big bath and income smoothing techniques to manipulate the tests to determine goodwill impairment. Additionally, Avallone and Quagli (2015) demonstrate that managers use growth rates in these tests to evade or minimize the amount of impairment.

In this context, the method to determine goodwill impairment has created new challenges for auditors that involves not only questions related to goodwill valuation but also regarding the misalignment that this new method can create between managers who have incentives to avoid recording impairments and auditors who seek to guarantee the accuracy of the economic value of goodwill (Ayres et al., 2019). Goodwill is therefore an area of potential risk, which is why it is one of the most frequent reasons for KAMs (Deloitte, 2017; KPMG, 2017a).

The aim of introducing KAMs in the expanded audit report is to enhance transparency regarding the auditor's judgments of the material risk areas of clients. While the disclosure of KAMs primarily

relies on the auditor's judgment, both the IAASB and PCAOB regulators argue that matters requiring complex and/or subjective estimations should be incorporated into these disclosures (Camacho-Miñano et al., 2023). Therefore, an examination of the factors that may affect the disclosure of such information by auditors is important.

Although firms with lower profitability are related with higher managers' discretion in the financial reporting, which increases the likelihood of auditors disclosing KAMs, higher profitability is generally associated with lower risk, greater firm viability, and consequently, a lower likelihood of KAMs being identified (Pinto and Morais, 2019).

Avallone and Quagli (2015) and Chalmers et al. (2011) show the relevance of profitability to the decision to determine the impairment of goodwill that indicates there is a negative association between the profitability of companies and the recognition of charges to goodwill impairment. This finding is consistent with the idea that companies with higher profitability have less reason to recognize impairment losses on goodwill and are less likely to do so (Chalmers et al., 2011). Also, firms with lower profitability tend to use more creative accounting in the preparation of financial statements that increases the probability of a qualified opinion and/or the disclosure of more KAMs.

Taking these arguments into consideration, we argue that the risk associated with the computation of the impairment losses in goodwill is lower in companies with higher profitability compared to those with lower profitability. Consequently, the auditor is less likely to disclose a goodwill impairment as a significant audit matter in companies with higher profitability. Based on this, we state the following hypothesis:

**H1:** *Auditors are less likely to disclose the impairment of goodwill as a KAM in companies with higher profitability.*

The agency theory posits that corporate governance can be used to mitigate the conflict between management and stakeholders (Mensah and Boachie, 2023). Firms with stronger corporate governance can encourage managers and auditors to disclose more information for the interest of the stakeholders that mitigates any conflicts between them (Buerter et al., 2020).

The existing literature shows that the existence of institutions that control the application of standards in the areas of accounting and auditing can mitigate the use of discretion in companies' decision-making on goodwill impairments (Cheung and Lai, 2022). Glaum et al. (2018) conclude that for companies located in countries with high levels of supervision, they report goodwill impairments in a timely manner; while in companies from countries with lower enforcement, managers are less responsive in reporting declines in the economic value of goodwill. André et al. (2016) show that the frequency of recognized impairment losses in goodwill in annual reports is small at 20% to 25% compared to the number of companies that present evidence of economic impairment (existence of indications that goodwill might be impaired). This result is interpreted by the academic community as a sign of untimely recognition of impairment losses in goodwill.

Sun (2016) highlights that the CEO plays an important role in preventing and reducing impairment losses in goodwill. The author shows that there is a negative association between the CEO's management competency and the impairment of goodwill and proposes that a more competent CEO better prevents and reduces the impairment losses in goodwill than one with less competence. As a possible explanation for this inverse relationship, the author points out that a more competent CEO makes better acquisition decisions that lead to the recognition of goodwill that in the future, will justify lower impairment losses related to this asset.



The literature shows that corporate governance plays a key role in mitigating the use of discretion in decisions related to the impairment of goodwill. AbuGhazaleh et al. (2011) find that goodwill impairment is strongly associated with the effectiveness of corporate governance as more effective control mechanisms are more likely to restrict managers' opportunistic behaviors that then make them more likely to disclose private information about the performance of the company that better reflects its economic reality. While it may not completely eliminate the potential for discretionary practices, (2016) research demonstrates that robust corporate governance mechanisms can enhance the relationship between goodwill impairment and indicators of economic impairment. In other words, strong corporate governance facilitates the recognition of impairment through economic factors, as opposed to other considerations.

Considering these arguments, we argue that the auditor is less likely to disclose the impairment of goodwill as a KAM in companies with strong corporate governance. Therefore, the following hypothesis is formulated as the following:

**H2:** *Auditors are less likely to disclose the impairment of goodwill as a KAM in companies with strong corporate governance.*

#### 4. Research design

##### 4.1. Sample

The sample consists of companies listed on the stock market indices of Germany (DAX 30), Belgium (BEL 20), Spain (IBEX 35), France (CAC 40), the Netherlands (AEX), and Portugal (PSI 20) as of the 2017 fiscal year-end. The selection of the sample period was based on the first year that the disclosure of KAMs became mandatory through Regulation (EU) No 537/2014 and was effective for financial years starting on, or after, 17 June 2016. The sample only contains companies whose goodwill amount is significant on a materiality basis, that is, whose ratio between goodwill and total assets is greater than 2%. Table 1 displays our final sample.

Of the 168 initial firms, 58 observations were removed due to the application of the sample restriction to companies with significant amounts of goodwill. Ten firms were eliminated from the sample because they had a fiscal year different from the calendar year or because they were in a merger during the period, resulting in 100 observations. Then, 7 observations had missing data and one observation was eliminated as it constituted an outlier of the variable related to the size. Thus, the final sample contains 92 observations.

The information about the amounts of goodwill and KAMs as well as the information needed for the corporate governance index were hand-collected from annual reports, available on companies' websites. Accounting data such as total assets, operating income, total liabilities, and industry were retrieved through the *Datastream* database.

**Table 1. Final sample**

<b>Initial firms</b>	<b>168</b>
Significant goodwill value	−58
Merger Process/Different fiscal year	−10
Missing values	−7
Outlier	−1
<b>Final sample</b>	<b>92</b>



**Table 2. Sample**  
**Panel A: Sample by country**

Country	Number of observations	%
Belgium	12	13,04%
France	28	30,43%
Germany	19	20,65%
Portugal	5	5,43%
Spain	14	15,22%
The Netherlands	14	15,22%
Total	92	100,00%

**Panel B: Sample by industry**

Industry	Number of observations	%
Consumer goods ( <i>Consg</i> )	15	16,30%
Financial Institutions ( <i>Fin</i> )	6	6,52%
Industrial goods ( <i>Indg</i> )	15	16,30%
Materials ( <i>Mat</i> )	10	10,87%
Health care ( <i>Health</i> )	8	8,70%
Consumer services ( <i>Conss</i> )	14	15,22%
Information technology ( <i>IT</i> )	13	14,13%
Utilities ( <i>Uti</i> )	11	11,96%
Total	92	100,00%

Panel A of Table 2 shows the composition of the sample by country, where France is the most representative, with 30.43% of the observations, followed by Germany with 20.65%. Portugal stands at 5.43% with the lowest representativeness.

Panel B of Table 2 contains the sample composition by industry. Two industries stand out: consumer (*Consg*) and industrial (*Indg*) goods, as they each present 16.30% of the observations. In contrast, the financial sector (*Fin*) represents 6.52% of the sample.

#### 4.2. Research design

In order to investigate the effects of profitability and corporate governance on the auditor's decision to disclose a goodwill impairment as a KAM, we estimate the following logit model:

$$\text{KAM\_GW}_i = \beta_0 + \beta_1 \text{Prof}_i + \beta_2 \text{CG}_i + \beta_3 \text{Size}_i + \beta_4 \text{GW}_i + \beta_5 \text{Lev}_i + \beta_j \text{Industry}_i + \varepsilon_i \quad (1)$$

The dependent variable, KAM\_GW, is a binary variable that equals one, if the auditor has disclosed the impairment of goodwill as a KAM in the audit report for the sample period, and zero otherwise.

Regarding the independent variables, Prof represents the return on the company's assets and is computed as the ratio of operating income to total assets (Avallone and Quagli, 2015). Following our first hypothesis, we expect a negative coefficient for Prof.

CG represents the level of corporate governance and is measured by adopting the index developed by Kabir and Rahman (2016). In their research, the authors develop an index by summing a point if: (i) more than two thirds of the members of the board of directors are independent, (ii) more than two thirds of the members of the audit committee are independent, (iii) the company is audited by a Big Four audit firm, (iv) at least one of the members of the audit committee is an accountant, (v) the number of meetings of the audit committee is above

the median of the sample, and (vi) the same person does not hold the positions of chairman and CEO.

Due to the limited information available in the annual reports, we were not able to determine if the members of the audit committee were certified accountants. Therefore, the corporate governance index used in this study only assumes values between zero and five, with zero representing the weakest level of corporate governance (the company does not have any) and five is the strongest level of corporate governance (the company has strong corporate governance). Following our second hypothesis, we expect a negative coefficient for CG.

The literature has identified several factors that affect the disclosure of KAMs and are considered as control variables. The first variable is Size that is a measure of the firm's dimension and is calculated as the natural logarithm of total assets. Larger companies tend to recognize higher amounts of impairment losses compared to smaller companies, as noted by Giner and Pardo (2015). Therefore, we expect that auditors will have a higher tendency to disclose the impairment of goodwill as a KAM in larger companies.

The second variable is GW that is the ratio between goodwill and total assets and is a measure of the importance of goodwill to companies' balance sheets. A positive association is predicted between GW and the probability of disclosing a KAM on goodwill.

The third variable is Lev that is a measure of the financial risk of the company and is calculated as the ratio between total liabilities and total assets. Companies with higher leverage have higher financial risk that increases the likelihood of disclosing a KAM as it reduces the litigation risk of auditors. This finding is supported by both Pinto and Morais (2019) and Sierra-García et al. (2019).

The fourth variable is the Industry in which the company operates and is a determining factor in the disclosure of KAMs related to the risk inherent in specific financial statements' accounts, particularly in the impairment of assets. Thus, the industry should affect the auditor's decision to disclose the impairment of goodwill as a KAM. This conclusion is also supported by Sierra-García et al. (2019).

All the variables are defined in Appendix A.

## 5. Results

### 5.1. Descriptive statistics and correlation

Panel A of Table 3 shows the descriptive statistics of the variables analyzed. In 86.96% of the companies, the auditor discloses the goodwill impairment as a KAM highlighting the importance of this area of risk in auditor's work.

The sample is constituted by profitable companies having, on average, a return on assets of 7.20% and presenting a corporate governance index of 3.14. The dimension of the goodwill item is, on average, 22.09% of total assets.

Table 3, Panel B provides descriptive statistics categorized by industry. The results reveal that the healthcare sector has the highest materiality in terms of goodwill amount (41.2%) and is the sector in which all companies disclose a KAM on goodwill impairment (100%). Although the consumer services industry does not have the lowest materiality, it has the lowest percentage of KAMs disclosed (79%).

**Table 3. Descriptive statistics**

**Panel A: Descriptive statistics for all companies**

Variable	Obs.	Mean	Median	Standard-deviation	Minimum	Maximum
KAM_GW	92	0,869	1,000	0,339	0,000	1,000
Prof	92	0,072	0,070	0,048	−0,114	0,250
CG	92	3,141	3,000	1,044	1,000	5,000
Size	92	23,833	23,979	1,229	20,718	26,745
GW	92	0,221	0,208	0,148	0,020	0,575
Lev	92	0,609	0,599	0,159	0,206	1,209

**Panel B: Descriptive statistics by industry**

Industry	Obs.	Mean					
		KAM_GW	Prof	CG	Size	GW	Lev
Consg	15	0,867	0,098	2,933	24,235	0,255	0,602
Fin	6	0,833	0,025	2,833	24,017	0,045	0,633
Indg	15	0,867	0,062	3,067	23,619	0,227	0,611
Mat	10	0,900	0,089	3,400	23,364	0,148	0,534
Health	8	1,000	0,084	3,625	24,129	0,412	0,515
Conss	14	0,786	0,072	2,643	23,179	0,233	0,655
IT	13	0,846	0,086	3,000	23,599	0,276	0,638
Uti	11	0,909	0,034	3,909	24,795	0,109	0,643
<b>Total</b>	92						

**Note:** KAM\_GW equals one if the auditor discloses the impairment of goodwill as a KAM in the audit report, and zero otherwise; Prof is the ratio of operating income to total assets; CG ranges from zero and five with zero representing the weakest level of corporate governance (the company does not have any) and five the strongest level of corporate governance (the company has strong corporate governance); Size is the natural logarithm of total assets; GW is the ratio between goodwill and total assets; Lev is the ratio between total liabilities and total assets. Consg, Fin, Indg, Mat, Health, Conss, IT and Uti equal one if the company operates in the consumer goods industry, financial sector, industrial goods industry, materials industry, healthcare industry, consumer services industry, information technology industry, and utilities industry, respectively, and zero otherwise.

Table 4 shows the Pearson's correlation matrix. The results indicate that correlations between variables are low. The highest correlation value is 0.35 between GW and Prof that indicates our tests have no multicollinearity concerns.

## 5.2. Results

Table 5 shows the results of the logit model that was estimated with the maximum likelihood method to determine which factors influence the auditor's decision to report the impairment of goodwill as a KAM.

In line with our first hypothesis, the coefficient for Prof is negative and statistically significant at the 5% level ( $\beta_1 = -25.28$ ). Therefore, we may conclude that auditors are less likely to disclose an impairment of goodwill as a KAM in companies with higher profitability. This relationship is in line with literature that finds that in general these firms are associated with future viability and less risk that decreases the need to disclose KAMs (Avallone and Quagli, 2015; Chalmers et al., 2011). In fact, in companies with higher profitability, there are fewer events which results in the need to recognize impairment losses on goodwill (Chalmers et al., 2011). In view of these results, the risk associated with the process of estimating and recognizing impairment losses on goodwill is lower in this type of company, which justifies the lower tendency of the auditor to report the impairment of goodwill as a KAM.

Regarding the second hypothesis, the findings show that corporate governance is negatively associated with the probability of a goodwill impairment being disclosed as a KAM as the coefficient

Table 4. Pearson correlation									
	KAM_GW	Prof	CG	Size	GW	lev	Consg	Fin	
KAM_GW	1,000								
Prof	-0,261**	1,000							
CG	-0,103	-0,032	1,000						
Size	0,201*	-0,238**	0,155	1,000					
GW	0,097	0,350***	0,188*	-0,144	1,000				
Lev	-0,019	-0,361***	0,005	0,215**	-0,183*	1,000			
Consg	-0,004	0,247**	-0,088	0,145	0,102	-0,017	1,000		
Fin	-0,028	-0,261**	-0,078	0,040	-0,315***	0,041	-0,117	1,000	

Note: The \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels.

**Table 5. Determinants of the disclosure of goodwill impairment as a KAM**

Variable	Coef.	Expected sign	Coef	P-Value
Constant	$\beta_0$	?	1,604	0,999
Prof	$\beta_1$	-	-25,282**	0,011
CG	$\beta_2$	-	-1,086**	0,037
Size	$\beta_3$	+	0,840*	0,053
GW	$\beta_4$	+	8,789**	0,034
LEV	$\beta_5$	+	-3,595	0,157
Industry Dummy			yes	
Number of observations			92	
Pseudo R <sup>2</sup>			0,3085	
LR test			21,98	
P-Value			0,0378	

**Note:** This table presents the results of estimating the logit model (1) to determine the factors that influence the disclosure of goodwill impairment as a KAM. All variables are defined in Appendix A. The \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels.

for the corporate governance index ( $\beta_2 = -1.08$ ) is negative and statistically significant at the 5% level. Thus, we may conclude that an increase of one unit in that index leads to a decrease in the odds of a goodwill impairment becoming a KAM of 34%. This relationship validates hypothesis 2 according to which auditors tend to disclose fewer KAMs for goodwill impairments in companies with stronger corporate governance. This result is consistent with the literature that shows that companies with stronger corporate governance recognize impairment losses on goodwill that are more associated with economic factors that better reflect the economic reality of the company, rather than being based on opportunistic motivations of managers (AbuGhazaleh et al., 2011; Kabir and Rahman, 2016). Thus, it appears that in this type of company the risk inherent in determining the amount of impairment charges on goodwill is lower, given the strong control exercised internally, and therefore that the auditor has less tendency to disclose the impairment of the goodwill as a KAM.

Within the scope of the control variables, we find a positive and statistically significant relationship at a significance level of 10%, between the auditor's decision to communicate a KAM regarding goodwill impairment and the size of the company ( $\beta_3 = 0.84$ ). Similarly, the coefficient related to the relative weight of goodwill in total assets ( $\beta_4 = 8.78$ ) has a positive and statistically significant coefficient. Thus, we may conclude that auditors of larger companies and companies with a greater relative weight of goodwill in total assets are more likely to disclose the goodwill impairment as a KAM.

## 6. Additional tests

In order to have a better understanding of the influence of corporate governance on the auditor's decision to report the impairment of goodwill as a KAM, the previous model is estimated by decomposing the CG variable as the following:

$$KAM\_GW_i = \beta_0 + \beta_1 Prof_i + \beta_2 Ind\_BD_i + \beta_3 Ind\_AUD_i + \beta_4 MEET_i + \beta_5 DUAL_i + \beta_6 Size_i + \beta_7 GW_i + \beta_8 Lev_i + \beta_9 Industry_i + \varepsilon_i \quad (2)$$

Four dummy variables are added to the model: (i) Ind\_BD which represents the independence of the board of directors and equals one if more than two thirds of the members of the board of directors are independent, and zero otherwise; (ii) Ind\_AUD which represents the audit committee's independence and equals one if more than two thirds of the audit committee members are independent, and zero otherwise; (iii) MEET is the frequency of meetings held by the audit committee that equals one if the number of meetings of the audit committee is higher than the median of the sample, and zero otherwise; and (iv) Dual refers to the absence of dual functions of the CEO and equals one if the CEO is not the chairman of the board of directors, and zero otherwise. It should be noted that no variable was

added to the model for the audit by a Big Four auditor as all companies in the sample were audited by one. As observed with the CG variable, we expect a negative relationship between the different corporate governances to also have a negative relationship and the probability of the auditor disclosing the goodwill impairment as a KAM.

As Table 6 shows, the conclusions remain unchanged, except in the case of the Size variable, which is not statistically significant. Regarding the variables that make up the corporate governance index, all of them are statistically significant at the 5% or 10% level, with the exception of Ind\_AUD. The results show that the auditor is less likely to report the impairment of goodwill as a KAM when the independence of the board of directors and the frequency of audit committee meetings are higher and the chairman and the CEO are not the same person.

Additionally, we analyze if the weight of the goodwill in total assets has any moderating role in the influence of corporate governance on the disclosure of goodwill impairments as KAMs. Then, we estimate the following equation with an interaction between the corporate governance index and the goodwill weight (CG \* GW):

$$\text{KAM\_GW}_i = \beta_0 + \beta_1 \text{Prof}_i + \beta_2 \text{CG}_i + \beta_3 \text{CG}_i * \text{GW} + \beta_4 \text{Size}_i + \beta_5 \text{GW}_i + \beta_6 \text{Lev}_i + \beta_j \text{Industry}_i + \varepsilon_i \quad (3)$$

The variables are defined in Appendix A.

The findings presented in Table 7 indicate that auditors are more inclined to report KAMs related to goodwill for companies where its weight is significant despite the presence of robust corporate governance. This finding shows that the economic significance of goodwill holds significant influence over the auditor's decision-making even in companies with strong governance structures.

Finally, we estimate the based model using an interaction between the binary variable Fin and CG to explore whether a company's affiliation with the financial sector affects the auditor's decision to disclose goodwill impairment as a KAM. Despite the financial sector's reputation for being complex and opaque, Pinto and Morais (2019) find that auditors are less likely to disclose

**Table 6. Impact of corporate governance on the disclosure of goodwill impairment as a KAM**

Variable	Coeff	Expected sign	Coeff	P-value
Constant	$\beta_0$	?	8,252	0,997
Prof	$\beta_1$	-	-40,208***	0,005
Ind_BD	$\beta_2$	-	-2,426*	0,059
Ind_AUD	$\beta_3$	-	1,923	0,168
MEET	$\beta_4$	-	-3,101**	0,014
Dual	$\beta_5$	-	-3,370*	0,056
Size	$\beta_6$	+	0,582	0,209
GW	$\beta_7$	+	11,263**	0,024
Lev	$\beta_8$	+	-2,946	0,295
Industry Dummy			yes	
Number of observations			92	
Pseudo R <sup>2</sup>			0,4259	
LR-test			30,34	
P-Value			0,0107	

Note: This table presents the results of estimating the based model, where the variable CG is replaced by its different corporate governances according to equation (2). All variables are defined in Appendix A. The \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels

KAMs for financial institutions. This aversion indicates that the high degree of regulation and supervision in this sector may influence auditor behavior. Therefore, we estimate the following model with an interaction between CG and Fin:

$$\text{KAM\_GW}_i = \beta_0 + \beta_1 \text{Prof}_i + \beta_2 \text{CG}_i + \beta_3 \text{Size}_i + \beta_4 \text{GW}_i + \beta_5 \text{Lev}_i + \beta_6 \text{CG} * \text{Fin}_i + \varepsilon_i \quad (4)$$

The findings presented in Table 8 support the conclusions drawn by Pinto and Morais (2019). They indicate that rigorous regulation and supervision of the financial market work together with effective corporate governance to decrease the likelihood of KAMs related to goodwill impairments.

## 7. Conclusions

The changes in the form and content of the audit report, with the inclusion of a separate section for the communication of the key audit matters, make relevant the analysis of the factors that influence the auditor's decision to disclose these areas of risk.

Currently, goodwill is one of the more frequently identified subjects of KAMs (Deloitte, 2017; KPMG, 2017a) not only because it has a significant weight in the companies' total assets, representing 16% to 17% of the total assets (André et al., 2016; Glaum et al., 2018), but because it requires the professional judgment of managers to carry out mandatory impairment tests.

In this context, there is an opportunity to analyze some factors that may influence the disclosure of goodwill impairment as a KAM in companies whose relative weight of this intangible asset is significant. Consequently, we highlight the effects of the profitability and corporate governance of the companies on the auditor's decision to disclose the goodwill impairment as a KAM. To this end, we used a sample of 92 observations from listed companies present in the stock indices of Germany, Belgium, Spain, France, the Netherlands, and Portugal as of the 2017 fiscal year-end.

The results show that auditors are less likely to report a goodwill impairment as a KAM for companies with higher profitability. This result can be justified by the fact that, in this type of company, the propensity for recognizing impairment losses in goodwill and the reasons for doing so are lower (Avallone and Quagli, 2015; Chalmers et al., 2011). Such a context will indicate a lower level of risk associated with the process of determining the recoverable value of goodwill with the

**Table 7. Moderating role of goodwill weight (GW)**

Variable	Coeff	Expected sign	Coeff	P-Value
Constant	$\beta_0$	?	7,511	0,998
Prof	$\beta_1$	-	-28,477***	0,007
CG	$\beta_2$	-	-2,721***	0,006
CG* GW	$\beta_3$	?	8,019**	0,037
Size	$\beta_4$	+	0,841*	0,058
GW	$\beta_5$	+	-18,650	0,149
Lev	$\beta_6$	+	-2,872	0,258
Industry Dummy			yes	
Number of observations			92	
Pseudo R <sup>2</sup>			0,3816	
LR-test			27,19	
P-Value			0,0117	

**Note:** This table presents the results of estimating the based model with an interaction between CG index and GW according to equation (3). All variables are defined in Appendix A. The \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels.



**Table 8. Moderating role of financial sector (Fin)**

Variable	Coeff	Expected sign	Coeff	P-Value
Constant	$\beta_0$	?	-10.906	0,135
Prof	$\beta_1$	-	-24,843**	0,039
CG	$\beta_2$	-	-0,978*	0,064
Size	$\beta_3$	+	0,782**	0,020
GW	$\beta_4$	+	8.243**	0,031
Lev	$\beta_5$	+	-3,412	0,234
CG*Fin	$\beta_6$		-0,127***	0,001
Industry Dummy			yes	
Number of observations			92	
Pseudo R <sup>2</sup>			0,2917	
LR-test			27,19	
P-Value			0,0117	

**Note:** This table presents the results of estimating the based model with an interaction between the CG index and the dummy sector for financial sector (Fin) according to equation (4). All variables are defined in Appendix A. The \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels.

performance of impairment tests on this asset. In turn, the results show that auditors are less likely to disclose a goodwill impairment as a KAM when the recognition of the impairment losses in goodwill is more associated with economic factors than with the opportunistic actions of managers in companies with strong corporate governance (AbuGhazaleh et al., 2011; Kabir and Rahman, 2016). This fact reduces the risk associated with recognizing these losses, which justifies the results found.

The results also show that the auditor is more likely to identify goodwill impairment as a KAM in larger companies or in companies with greater relative weight of goodwill in total assets. We confirm the conclusions with an additional robustness analysis; it shows the importance of the independence of the board of directors, the frequency of meetings of the audit committee, and the absence of dual roles for the CEO in reducing the likelihood of the auditor reporting the impairment of goodwill as KAM. It should also be noted that when the weight of goodwill in total assets is significant and the corporate governance is strong, the auditor is more likely to identify the impairment of goodwill as a KAM. This conclusion demonstrates the importance of the economic relevance of goodwill in making this decision, even if the company has strong corporate governance mechanisms.

Finally, financial institutions' auditors are less likely to disclose the impairment of goodwill as a KAM that is consistent with the argument that the higher level of regulation and supervision of these companies, combined with corporate governance, decrease the likelihood of a KAM.

Considering the uncertainties surrounding the most effective method of accounting for goodwill, and the IASB's focus on minimizing the expenses and complexity involved in impairment testing when adopting the impairment-only model, our research aids regulators, supervisors and investors in comprehending the factors that drive auditors to reveal a KAM concerning goodwill.

This study has some limitations. First, the measure of corporate governance may be bias because one of the components of the index proposed by Kabir and Rahman (2016) (at least one of the members of the audit committee is an accountant) was not considered. Second, the sample and the period analyzed is small. However as referred to in Bédard et al. (2014), there is a trend towards maintaining the type and the average number of KAMs disclosed by the auditors over the years. Thus, we believe that the study's validity is not compromised.

Future research may add a set of countries whose accounting standards in the area of asset impairment, specifically the impairment of goodwill, are more based on rules to better understand whether the nature of the accounting standards (more principle- or more rule-based) cause changes in the factors that are relevant to the disclosure of a goodwill impairment as a KAM. The investigation about the potential effect that the amount of, and not only the existence of, impairment losses in goodwill recognized on the auditor's decision to report it as a KAM may also be relevant.

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#### Note

1. <https://www.ifrs.org/news-and-events/news/2022/11/iasb-votes-to-retain-impairment-only-approach-for-goodwill-accounting/>.

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#### References

- AbuGhazaleh, N. M., Al-Hares, O. M., & Roberts, C. (2011). Accounting discretion in goodwill impairments: UK evidence. *Journal of International Financial Management and Accounting*, 22(3), 165–204. <https://doi.org/10.1111/j.1467-646X.2011.01049.x>
- André, P., Filip, A., & Paugam, L. (2016). Examining the patterns of goodwill impairments in Europe and the US. *Accounting in Europe*, 13(3), 329–352. <https://doi.org/10.1080/17449480.2016.1260748>
- Avallone, F., & Quagli, A. (2015). Insight into the variables used to manage the goodwill impairment test under IAS 36. *Advances in Accounting, Incorporating Advances in International Accounting*, 31, 107–114. <https://doi.org/10.1016/j.adiac.2015.03.011>
- Ayres, D. R., Neal, T., Reid, L., & Shipman, J. E. (2019). Auditing goodwill in the post-amortization Era: Challenges for auditors. *Contemporary Accounting Research*, 36(1), 82–107. <https://doi.org/10.1111/1911-3846.12423>
- Beatty, A., & Weber, J. (2006). Accounting discretion in fair value estimates: An examination of SFAS 142 goodwill impairments. *Journal of Accounting Research*, 44(2), 257–288. 107. <https://doi.org/10.1111/j.1475-679X.2006.00200.x>
- Bédard, J., Gonthier-Besacier, N., & Schatt, A. (2014). “Analysis of the consequences of the disclosure of key audit matters in the audit report”. Available at: <http://www.hec.unil.ch/documents/seminars/dcc/1946.pdf> [Accessed: 01/04/2019].
- Buertey, S., Sun, E. J., Lee, J. S., & Hwang, J. (2020). Corporate social responsibility and earnings management: The moderating effect of corporate governance mechanisms. *Corporate Social Responsibility and Environmental Management*, 27(1), 256–271. <https://doi.org/10.1002/csr.1803>
- Camacho-Miñano, M. D. M., Muñoz-Izquierdo, Pincus, M., Wellmeyer, P., & Muñoz-Izquierdo, N. (2023). Are key audit matter disclosures useful in assessing the financial distress level of a client firm? *The British Accounting Review, Forthcoming*, 101200. <https://doi.org/10.1016/j.bar.2023.101200>
- Carcello, J. V., Neal, T. L., Reid, L. C., & Shipman, J. E. (2020). Auditor independence and fair value accounting: An examination of nonaudit fees and goodwill impairments†. *Contemporary Accounting Research*, 37(1), 189–217. <https://doi.org/10.1111/1911-3846.12514>
- Chalmers, K. G., Godfrey, J. M., & Webster, J. C. (2011). Does a goodwill impairment regime better reflect the underlying economic attributes of goodwill? *Accounting and Finance*, 51(3), 634–660. <https://doi.org/10.1111/j.1467-629X.2010.00364.x>
- Cheung, K. Y., & Lai, C. Y. (2022). External auditors' trust and perceived quality of interactions. *Cogent Business & Management*, 9(1), 2085366. <https://doi.org/10.1080/23311975.2022.2085366>
- Christensen, B. E., Glover, S. M., & Wolfe, C. J. (2014). Do critical audit matter paragraphs in the audit report change nonprofessional investors' decision to invest? *Auditing: A Journal of Practice & Theory*, 33(4), 71–93. <https://doi.org/10.2308/ajpt-50793>
- D'Arcy, A., & Tarca, A. (2018). Reviewing IFRS goodwill accounting research: implementation effects and cross-country differences. *The International Journal of Accounting*, 53(3), 203–226. ISSN 0020-7063. <https://doi.org/10.1016/j.intacc.2018.07.004>
- Deloitte. (2017). Benchmarking the new auditor's report Key audit matters and other additional. Available at: <https://www2.deloitte.com/ch/en/pages/audit/articles/benchmarking-the-new-auditors-report.html> [Accessed 15/04/2019].
- Ferramosca, S., & Allegrini, M. (2021). Impairment or amortization of goodwill? Perceptions of goodwill accounting. *European Management Journal*, 39(6), 816–828. <https://doi.org/10.1016/j.emj.2021.03.001>
- Ghosh, A., & Xing, C. (2021). Goodwill impairment and audit effort. *Accounting Horizons*, 35(4), 83–103. <https://doi.org/10.2308/HORIZONS-19-055>
- Giner, B., & Pardo, F. (2015). How ethical are managers' goodwill impairment decisions in Spanish-listed firms? *Journal of Business Ethics*, 132(1), 21–40. <https://doi.org/10.1007/s10551-014-2303-8>
- Glaum, M., Landsman, W. R., & Wyrwa, S. (2018). Goodwill impairment: The effects of public enforcement and monitoring by institutional investors. *The Accounting Review*, 93(6), 149–180. <https://doi.org/10.2308/accr-52006>
- Gold, A., Heilmann, M., Pott, C., & Rematzki, J. (2020). Do key audit matters impact financial reporting behavior? *International Journal of Auditing*, 24(2), 1–13. <https://doi.org/10.1111/ijau.12190>
- He, Z., Chen, D., & Tang, J. (2021). Do goodwill impairments affect audit opinions? Evidence from

- China? *China Journal of Accounting Research*, 14 (2), 151–182. <https://doi.org/10.1016/j.cjar.2021.03.002>
- International Accounting Standards Board (IASB). (2004). Norma Internacional de Relato Financeiro 3: Concentrações de actividades empresariais. *Jornal Oficial da União Europeia*, L392/1.
- International Accounting Standards Board (IASB). (2008). Regulamento 1126/2008 (Report No. JO L 320). International financial reporting standard 3. Business Combinations.
- International Financial Reporting Standards Foundation (IFRS Foundation). (2019). Better information about business combinations - Goodwill and Impairment: Project update. Available at: <https://www.ifrs.org/content/dam/ifrs/project/goodwill-and-impairment/in-brief-goodwill-and-impairment-factsheet.pdf> [Accessed: 04/04/2023]
- Kabir, H., & Rahman, A. (2016). The role of corporate governance in accounting discretion under IFRS: Goodwill impairment in Australia. *Journal of Contemporary Accounting & Economics*, 12(3), 290–308. <https://doi.org/10.1016/j.jcae.2016.10.001>
- KPMG. (2017a), Key Audit Matters: Auditor's report snapshot 20 September 2017. Available at: <https://home.kpmg/au/en/home/insights/2017/09/key-audit-matters-auditor-report-20-september-2017.html> [Accessed 15/04/2019].
- Linsmeier, T. J., & Wheeler, E. (2021). The debate over subsequent accounting for goodwill. *Accounting Horizons*, 35(2), 107–128. <https://doi.org/10.2308/HORIZONS-19-054>
- Mensah, E., & Boachie, C. (2023). Corporate governance mechanisms and earnings management: The moderating role of female directors. *Cogent Business & Management*, 10(1), 2167290. <https://doi.org/10.1080/23311975.2023.2167290>
- Morais, A. I., & Pinto, I. (2023). Enforcement Shape the Complexity in Accounting Standards? *International Journal of Financial Studies*, 11(1), 34–51. <https://doi.org/10.3390/ijfs11010034>
- Orquin, J. L., & Loose, S. M. (2013). A review on eye movements in decision making. *Acta Psychologica*, 144 (1), 90–206. <https://doi.org/10.1016/j.actpsy.2013.06.003>
- Pajunen, K., & Saastamoinen, J. (2013). Do auditors perceive that there exists earnings management in goodwill accounting under IFRS? Finnish evidence. *Managerial Auditing Journal*, 8(3), 245–260. <https://doi.org/10.1108/02686901311304367>
- Pinto, I., & Morais, A. I. (2019). What matters in disclosures of key audit matters: Evidence from Europe. *Journal of International Financial Management and Accounting*, 30(2), 145–162. <https://doi.org/10.1111/jifm.12095>
- Pinto, I., Morais, A. I., & Quick, R. (2020). The impact of the precision of accounting standards on the expanded auditor's report in the European Union. *Journal of International Accounting, Auditing and Taxation*, 40, 1–18. <https://doi.org/10.1016/j.intaccudtax.2020.100333>
- Ramanna, K., & Watts, R. L. (2012). Evidence on the use of unverifiable estimates in required goodwill impairment. *Review of Accounting Studies*, 17(4), 749–780. <https://doi.org/10.1007/s11142-012-9188-5>
- Schatt, A., Doukakis, L., Bessieux-Ollier, C., & Walliser, E. (2016). Do goodwill impairments by European firms provide useful information to investors? *Accounting in Europe*, 13(3), 307–327. <https://doi.org/10.1080/17449480.2016.1254348>
- Sierra-García, L., Gambetta, N., García-Benau, M. A., & Orta-Pérez, M. (2019). Understanding the determinants of the magnitude of entity-level risk and account-level risk key audit matters: The case of the United Kingdom. *The British Accounting Review*, 51(3), 227–240. <https://doi.org/10.1016/j.bar.2019.02.004>
- Sun, L. (2016). Managerial ability and goodwill impairment. *Advances in Accounting, Incorporating Advances in International Accounting*, 32, 42–51. <https://doi.org/10.1016/j.adiac.2016.02.002>
- Tunyi, A. A., Ehalaiye, D., Gyapong, E. N., & G, C. (2020). The value of discretion in Africa: Evidence from acquired intangible assets under IFRS 3. *The International Journal of Accounting*, 55(02), 2050008. <https://doi.org/10.1142/S1094406020500080>

## Appendix A – Definitions of Variables

Variables	Definition
<b>Dependent Variable</b>	
KAM_GW	KAM_GW is a binary variable that equals one if the auditor has disclosed the impairment of goodwill as a KAM in the audit report as of the 2017 year-end, and zero otherwise.
<b>Independent Variables</b>	
Prof	Prof is the ratio of operating income to total asset.
CG	CG is the corporate governance index. This index is developed by summing 1 point if: (i) more than two thirds of the members of the board of directors are independent, (ii) more than two thirds of the members of the audit committee are independent, (iii) the company is audited by a Big Four audit firm, (iv) the number of meetings of the audit committee is above the median of the sample, and (v) the same person does not hold the positions of chairman and CEO. This index can range from zero and five, with zero representing the weakest level of corporate governance (the company does not have any) and five the strongest level of corporate governance (the company has strong corporate governance).
Size	Size is the natural logarithm of total assets.
GW	GW is the ratio between goodwill and total assets.
Lev	The book value of common equity for the fiscal year t deflated by the number of outstanding shares.
Industry	Dummy variable that equals one if the company operates in the consumer goods industry, financial sector, industrial goods industry, materials industry, healthcare industry, consumer services industry, information technology industry, and utilities industry, respectively, and zero otherwise.
Ind_BD	Ind_BD equals one if more than two thirds of the members of the board of directors are independent, and zero otherwise.
Ind_AUD	Ind_AUD equals if more than two thirds of the audit committee members are independent, and zero otherwise.
MEET	MEET equals one if the number of meetings of the audit committee is higher than the median of the sample, and zero otherwise.
Dual	Dual equals one if the CEO is not the chairman of the board of directors, and zero otherwise.